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The Interface between Design Patents and Copyright: Toward Reforming Industrial Design Protection in Thailand

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Abstract

The interface between industrial designs and copyright is a contentious issue in the field of intellectual property, becoming more prominent in the era of new technology due to the increasingly significant role of industrial designs. Industrial designs are germane to the very existence of human beings. They serve as a reflection of how society and culture developed during a specific era. The industrial revolution instigated the beginning of industrially applied products, propelling industrial designs to stardom. The evolution of industrial designs has continually progressed through time and changes among economic and cultural diversities. The dynamics of industrial designs are not rigid and veer in a more fluid direction with the coming new technologies. The future of industrial designs, therefore, hinges on the legal protection endorsed in each country. The historical development of industrial design protection and the interface between industrial designs and copyright varies widely from country to country. In view of both economic and non-economic justifications of industrial designs, each country shares some common goals of regulating the level of protection that is most suitable for its economic, cultural, and political objectives. Despite the positive aspects, the complex interaction between industrial designs and copyright raises concern over the scope of protection upsetting the balance of rights underpinning each intellectual property regime, as demonstrated in case law, which provokes debates on industrial design protection. Nonetheless, there is a limited number of literature about the interface between industrial designs and copyright, and there is a paucity of literature analyzing the issue in developing countries, such as Thailand.

The purpose of this dissertation is to contribute to the enhancement of the legal protection of industrial designs in Thailand by focusing on the interface between design patents and copyright. To achieve this objective, it is important to ascertain whether the current design patent regime protects industrial designs adequately and whether and to what extent cumulative protection with copyright should be permissible for the balanced interests of industrial design proprietors and the benefits of economic and cultural developments. For Thailand, there are potential benefits of industrial designs to boost its economy and promote cultural identities. However, there is no sufficient realization of the

significance of industrial design protection and the legal framework for the protection of industrial designs requires a careful revolution.

The complexity of industrial design protection stems from two main reasons: the nature of industrial designs and the legal framework for industrial design protection. As comparatively examined in chapter 2, the inherent nature of industrial designs causes several perplexing problems, resulting in the convolutions of the legal protection for industrial designs. The terms “industrial” and “design” signify two opposite sides of the same coin, two opposing elements merged into “industrial design,” thus posing conceptual difficulties for the legal protection thereof. Viewed artistically, industrial designs can be copyrightable due to their artistic elements in utilitarian articles. However, the copyrightability of industrial designs is not the same everywhere in the world.

Despite the great significance of industrial designs across the globe, the legal protection of industrial designs and cumulative protection with copyright is diverse across jurisdictions. The divergence of industrial design protection can be problematic for industrial design proprietors because the legal protection of their works in a country does not mean the same level of protection in other countries. Particularly, cumulative protection with copyright has long been the subject of debate in many jurisdictions, but there is no international harmonization of the issue. The functioning of international agreements fails to completely harmonize industrial design protection and guarantee strong protection to industrial design proprietors. Although international agreements oblige certain standards of industrial design protection, they are quite reserved and ambiguous about the legal framework of industrial designs. The Paris Convention for the Protection of Industrial Property merely recognizes industrial design as an object of intellectual property. The Berne Convention for the Protection of Literary and Artistic Works obliges Member countries to protect such works as artistic works when there is no sui generis design legislation, but it provides considerable autonomy to Member countries for protecting industrial designs and works of applied art. The Agreement on Trade-Related Aspects of Intellectual Property Rights, which is the most descriptive of industrial design protection, does not strictly enforce a particular intellectual property regime to protect industrial designs but allows copyright to be an option. Member countries may thus choose to adopt a different

legal framework for the protection: the EU, UK, and Japan implement sui generis design legislation, whereas Thailand and US protect industrial designs under patent law. The divergence between countries using a sui generis design regime and a design patent regime results in not only the level of difficulty in satisfying the legal requirements, but also the practical conveniences in obtaining the protection. There are also some differences regarding protection requirements, for instance, even among countries adopting the same means of protection. Hence, the legal protection of industrial designs is nowhere near complete harmonization.

Many developed countries have a well-regulated framework for the legal protection of industrial designs and cumulative protection with copyright; however, Thailand's legal framework still has plenty of room for improvement. The beneficial role of industrial designs is evident in the EU and UK, where there is a well-regulated framework for the legal protection of industrial designs. As comparatively discussed in chapter 3, countries adopting sui generis design regimes and harmonizing certain aspects of protection including cumulative protection with copyright tend to handle the interface between industrial designs and copyright without unmanageable conflicts: the Design Directive and Design Regulation explicitly address cumulative protection with copyright in legislation, and the UK laws delineate copyrightable subject-matter clearly. In contrast, countries utilizing a design patent regime appear to face more difficulty in protecting industrial designs and handling cumulative protection with copyright. The US struggles with the copyrightability of industrial designs by virtue of the useful article doctrine and the separability test, which rests with the courts. Thailand faces inconsistency and legal uncertainty owing to the ill-regulated legal framework concerning the interface between design patents and copyright. The carefully constructed legal framework in each country can thus minimize problems causing ineffective protection of industrial designs.

In response to the research question, this dissertation delves into both legal and practical analyses of the Thai legal framework related to industrial design protection, particularly on the interface between design patents and copyright. By using the comparative method to discover the legal and practical problems toward effective protection of industrial designs in Thailand, this dissertation

presents detailed analyses of the Thai legal framework related to industrial design protection and the relevant case law. The legal analysis includes examining the historical development of design patent protection and means of intellectual property protection available to industrial designs under patent and copyright laws. To analyze the practical aspects, this dissertation further investigates the practical data from the patent database of Thailand's Department of Intellectual Property since the enactment of the Thai Patent Act in 1979. For this purpose, the author collected data using an automated program originally created to perform exploratory data analysis. The results of the analysis are then presented in graphs and summary statistics, which are means and standard deviations, together with the discussion. The numbers of design patent applications and granted design patents are computed to render outcomes based on the dimensions of industrial designs: two-dimensional and three-dimensional forms. The statistical results can provide new insights into the popularity and the likelihood of success for each type of industrial designs applied for design patents in Thailand. In addition, the data analysis reveals the average number of days between the date of filing a design patent application and the date of granting a design patent from 2000 to 2019, confirming the time-consuming process before granting design patents. It also shows the annual design patent allowance rates from 1979 to 2019, portraying the inconsistent trend that is unsatisfactory to the industrial design proprietors. To the best of the author's knowledge, these kinds of analyses are never before conducted in the literature regarding industrial design protection in Thailand, and the results yield some interesting findings that can reflect the functioning of the Thai design patent regime.

To ascertain whether cumulative protection should be permissible in Thailand, this dissertation comparatively reviews the historical development related to industrial design protection and the interface between industrial designs and copyright in the EU, UK, and US. The comparative review acknowledges the fact that some countries vacillated between different approaches regarding cumulative protection with copyright under different intellectual property laws. For example, the UK affords registered design protection for two- and three-dimensional designs under the Registered Designs Act 1949 and unregistered design protection for three-dimensional designs under the Copyright, Designs and Patents Act 1988. The EU's strong economic objectives on trade matters

further support cumulation, establishing the EU-wide unitary design rights for sui generis unregistered and registered design protection. The US predominantly remains in a position of demarcating between design patent protection and copyright protection, protecting ornamental attributes of industrial designs under patent law and circumscribing the protection of useful articles under copyright law. Thailand remains silent on cumulative protection with copyright of industrial designs, and as a result, it poses a risk to the interests of the industrial design proprietors in cases where cumulative protection with copyright is not possible.

The findings of this dissertation indicate that Thailand's legal framework related to industrial design protection has several shortcomings when compared to the EU, UK, and US counterparts. The Thai patent and copyright laws do not explicitly address the interface between design patents and copyright for industrial design protection. Thailand's industrial design protection regimes provide no clear boundaries as regards the protection of industrial designs under patent and copyright laws. According to the Thai legislative development, design patent protection should serve as a primary means for protecting industrial art; however, the protection afforded currently is inadequate and inefficacious. Design patents protect new and industrially applicable designs for ten years from the filing date, which is also less than the one granted by the US design patents. By contrast, original industrial designs copyrightable as works of applied art receive protection for twenty-five years after the creation or the first publication of the work. For industrial designs, overprotection is often associated with copyright, whereas under-protection is paired with design patents.

To put it succinctly, the design patent regime is inadequate, while the copyright regime is too lax in protecting industrial designs in Thailand. Notably, the statutory definitions of subject-matter protectable under design patent and copyright laws are not well-defined. The obscure wording leads to overlapping protection and paradoxical situations, unjustifiably affecting the balance between the interests of the industrial design proprietors and those of the public. According to the statutory definitions, purely functional industrial designs may be subject-matter protectable under copyright and patent laws since there exist the loose boundary of copyrightable subject-matter as works of applied art and the absence of the functionality exclusion under patent law. Such results are contrary to the

legal provisions implemented for functional industrial designs in the EU, UK, and US. The ill-regulated framework of industrial design protection under patent and copyright laws also undermines the potential benefits of industrial designs, contributing to their ineffective protection in Thailand. This dissertation, then, concludes that there is a need to reform the design patent regime for more effective protection of industrial designs by clarifying design patentable subject-matter, simplifying the design patent obtaining procedures, and increasing the term of protection, for instance. The improved design patent regime will untangle the relationship with copyright and closely align industrial design protection with developed countries.

Furthermore, this dissertation finds that there is a positive correlation between design patent protection and copyright protection for industrial designs. In light of legal and practical analyses using comparative studies on industrial design protection, the findings contribute additional evidence that cumulative protection between design patents and copyright is desirable for stronger protection. The cumulation of rights helps preserve the interests of the industrial design proprietors to reap the rewards after investing costs and efforts in developing industrial designs. Without adequate protection, the free-riding problem of industrial designs is not only detrimental to the economic interests of industrial design proprietors, but also to the creativity enriching the society. Consequently, the public interests would also be negatively affected by ineffective protection. The availability of copyright for industrial designs can thus serve as a supplementary means of protection alongside design patents. Cumulative protection with copyright will also reduce some obstacles caused by the absence of unregistered design protection in Thailand. The role of copyright will be of great benefit to short-lived designs and in cases where there is an immediate need for protection similar to unregistered design rights available in the EU and UK. The legal analyses and the practical statistics in chapter 4 also confirm the findings that copyright can play an important role in strengthening industrial design protection in the context of the Thai legal framework, which provides inadequate protection for industrial designs under the Thai design patent regime.

Having comparatively scrutinized industrial design protection in the EU, UK, and US, this dissertation recommends and proposes resolutions in dealing with the interface between design patents

and copyright for industrial design protection as follows: first, there should be a statutory provision explicitly allowing for cumulation between design patent protection and copyright protection for the purpose of legal uncertainty. The proposed approach to cumulative protection is a hybrid approach based on partial cumulation subject to some restrictions. Second, the statutory definitions of what constitutes design patentable and copyrightable subject-matter should be clearly defined under patent and copyright laws. Design patents should protect ornamental aspects of industrially applied articles, whereas copyright should protect genuine artistic works and works of applied art worthy of the long-term exclusivity rights conferred under copyright law. The boundaries between industrial designs copyrightable as works of applied art and those exclusively subject to the design patent regime must be clearly delineated. To prevent the adverse effects on competition and maintain the balance of interests between the industrial design proprietors and those of the public, both copyright and patent laws should explicitly forbid the protection of industrial designs solely or essentially dictated by functionality. As demonstrated in the EU, UK, and US, industrial designs as part of the creative industries are vital to the creative economy, serving as a valuable asset to foster economic growth and cultural prosperity. To achieve the purposes, Thailand needs to adjust the legislative landscape by reforming the legal framework related to industrial design protection, as recommended in this dissertation.

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Acronyms and Abbreviations

CDPA	Copyright, Designs and Patents Act
CJEU	Court of Justice of the European Union
CIPIT	Central Intellectual Property and International Trade Court
DIP	Department of Intellectual Property
EC	European Community
ECLI	European Case-Law Identifier
ECR	European Court Reports
EU	European Union
GUI	Graphical User Interface
IDSA	Industrial Designers Society of America
IPO	Intellectual Property Office
MFN	Most-Favored Nation
MPEP	Manual of Patent Examining Procedure
OHIM	Office for Harmonization in the Internal Market
PGS	Pictorial, Graphical, and Sculptural
TFEU	Treaty on the Functioning of the European Union
UK	United Kingdom
US	United States
USC	United States Code
USPTO	United States Patent and Trademark Office
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

CHAPTER 1

Introduction

> IN A CIVILIZED STATE, men have sufficient leisure and affluence to concern themselves with more than the bare necessities of survival. They can afford to make ordinary things-tools, utensils, shelters-more pleasing aesthetically as well as more efficient technologies. And societies are measured, as much as we can ever measure societies, for their artistic accomplishments as well as for their technical achievements.[1]

1.1 Background: Introduction to the Existing Problems

Industrial designs[2] embody both artistic and technical achievements resulting in a vexed problem of allocating intellectual property rights. The complexity of protecting industrial designs was exacerbated by the development of human creations and cultures over a period of time.[3] After the industrial revolution, many nations shifted toward industrialization, which transformed the economy and society in many aspects: industrial designs applied to or embodied in products became hot commodities and an indispensable part of our lives. In the twenty-first century, the world entered the digital age, whereby the flow of information occurs rapidly; the transition from the industrial age to the information age stemmed from the new technological advancements brought by innovations in numerous fields. Irrespective of the world becoming digitalized, industrial designs are always relevant to both economic and cultural aspects. Industrial designs have monetary value due to the appearance and functionality of a product; the aesthetic element matters considerably to the product's marketability gaining revenues for businesses and stimulating the economy. Culturally, industrial designs offer people a release from the humdrum. Without industrial design, life may be too bland, and society would be less exciting since industrial designs directly relate to the visual aspects that significantly

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1 Matthew Nimetz, *Design Protection*, 1 COPYRIGHT L. SYMP. 79 (1965).

2 The term "industrial design(s)" refers to an object of intellectual property. *See infra* chapter 2 (discussing general definitions and legal definitions of "industrial design(s)" in detail).

3 *See, e.g.*, ALEXANDER CARTER-SILK & MICHELLE LEWISTON, THE DEVELOPMENT OF DESIGN LAW – PAST AND FUTURE: FROM HISTORY TO POLICY 6 (2012) (noting that design protection has been a challenging task for both legislature and judiciary for more than four hundred years).

affect emotional controls over human beings. The human mind is naturally creative and continually develops to meet life's desires. The ability to create artistic creativity belongs to everyone, differing from scientific discoveries that require a certain degree of specific knowledge. Modern technologies have fueled rapid changes in the arts and styles in many aspects of life. Subsequently, industrial designs adapt to those changes, so the legal protection of industrial designs should be subject to review.

There is a notion that the intellectual property system overwhelmingly benefits developed countries, as they are the leading producers of the world's intellectual property. Even if that is true, industrial designs are somewhat on a level playing field compared with other kinds of intellectual property, which require more technological advancement. Contrary to other types of intellectual property, the monopoly rights conferred upon industrial designs do not jeopardize any chance of access to knowledge or the welfare of people's lives, as in copyrighted educational materials and patented medicines. Protecting industrial designs advocates the essence of the intellectual property system aiming to promote and encourage creativity through intellectual creations. In other words, the adverse effects of protecting industrial designs in society can be minimal and not conspicuous to make a considerable impediment to the significant development of developing countries. Therefore, utilizing the benefits of intellectual property in industrial designs may prove to be more beneficial for developing countries.

Due to the advantages previously mentioned, enhancing the legal protection of industrial designs is necessary. There are also considerable benefits in protecting industrial designs, particularly fostering economic growth and promoting cultural flourishment. Nevertheless, the current protection regimes for industrial designs do not appear to effectively balance the rights and interests of those involved with industrial design protection.

In Thailand, it is a paradox that obtaining a design patent is a primary means for industrial design protection despite the fact that design patents appear less effective than copyright due to the former's unappealing characteristics and more attractive benefits of the latter. Therefore, it is essential to investigate whether the existing legal framework for industrial design protection adequately maintains the balance between the interests of the industrial design proprietors and those of the public

and whether the protection regime genuinely contributes to innovation and promotes economic and cultural developments. Reichman noted that "[g]overnments adopt intellectual property laws in the belief that a privileged, monopolistic domain operating on the margins of the free-market economy promotes long-term cultural and technological progress better than a regime of unbridled competition."[4] The policymakers should consider these objectives and keep in mind that the inefficient and unregulated scope of intellectual property protection can be detrimental to the economic and social benefits. A comparative analysis of how other countries handle industrial design protection is necessary to ascertain whether the existing regime genuinely serves the objectives.

1.2 Current Problems

A fundamental problem of industrial design protection is the divergence of design protection regimes, principally due to the lack of international consensus regarding a specific form of industrial design protection. International treaties and agreements do not set out in detail substantive and procedural rules on industrial design protection. The Paris Convention for the Protection of Industrial Property (1883) [hereinafter the "Paris Convention"],[5] Article 5*quinquies* merely states that "industrial designs shall be protected in all countries of the union." The Agreement on Trade-Related Aspects of Intellectual Property Rights [hereinafter the "TRIPS Agreement"][6] further elaborates on industrial design protection by setting minimum substantive standards, but it provides too many flexibilities leading to inconsistency in implementing industrial design protection. In other words, Member countries have autonomy regarding how they intend to protect industrial designs legally. Japan and the European Union [hereinafter the "EU"] adopt a sui generis regime in addition to the three primary

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4 Jerome H. Reichman, *Charting the Collapse of the Patent-Copyright Dichotomy: Premises for a Restructured International Intellectual Property System*, 13 CARDOZO ARTS & ENT. L.J. 475, 475 (1995) [hereinafter "Reichman, *Charting the Collapse of the Patent-Copyright Dichotomy*"].

5 Paris Convention for the protection of industrial property of March 20, 1883, as revised at Brussels on December 14, 1900, at Washington on June 2, 1911, at The Hague on November 6, 1925, at London on June 2, 1934, at Lisbon on October 31, 1958, and at Stockholm on July 14, 1967, as amended on September [hereinafter the "Paris Convention"].

6 Agreement on Trade-Related Aspects of Intellectual Property Rights, April 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex lC, 1869 U.N.T.S. 299, 33 I.L.M. 81 (1994) [hereinafter the "TRIPS Agreement"].

types of intellectual property: copyright, trademark, and patent, while the United States [hereinafter the "US"] and Thailand protect industrial designs under a patent regime. Whichever form of protection, industrial designs seemingly either receive under-protection or overprotection in different jurisdictions. The ambiguity in the international agreements results in practical problems when each country must promulgate legislation providing some protection for industrial designs. For developing countries, the practical problem is not about the readiness to adopt the protection but rather detailed plans for implementing the protection regime. Such problems occurred at different levels of implementation, ranging from law-making to judicial decision-making processes.

Another problem of industrial design protection stems from the hybrid attributes of industrial designs, leading to the more complex relationship between two or more intellectual property protection regimes. An industrial design possesses a blend of aesthetic and functional elements enabling it to enhance the marketability of products of industry. The hybrid nature confusingly obscures the legal and practical applications compared with other intellectual property rights. As Reichman (1989) aptly described, industrial designs are "[t]rapped between the patent and copyright paradigms, yet ill-served by both, the industrial design constitutes a legal hybrid whose cyclical path through history still destabilizes the world's intellectual property system despite some two hundred years of regulatory action."[7] The legal protection of industrial designs can thus be perceived as disorganized and convoluted by the public and intellectual property specialists.

Cumulative protection is a notably complicated issue for industrial designs and remains a puzzle in intellectual property law. An overlap arises when more than one intellectual property right can be asserted for the same subject-matter. Overlaps occur between copyright and trademarks, for example, regarding the registered trademarks of copyright-protected artworks or literary works, or the issue of parallel imports and the exhaustion of rights.[8] Aside from industrial designs, there are overlaps between copyright and patents, for instance, regarding software programs: the subject-matter is

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[7] Jerome H. Reichman, *Design Protection and the New Technologies: The United States Experience in a Transnational Perspective Views on Present United States Design Protection*, 19 U. BALT. L. REV. 6, 10 (1989) [hereinafter "Reichman, *Design Protection and the New Technologies*"].

[8] *See, e.g.*, Parfums Christian Dior SA and Parfums Christian Dior BV v. Evora BV (C-337/95) [1997] ECR I-6013.

controversial as to its status under the copyright or patent regimes. As for industrial designs, an ornamental element may be considered an artistic form of expression protectable by copyright and may be eligible for protection under design patent or sui generis design laws. Three-dimensional designs may also be protected as trademarks if they satisfy legal requirements. Consequently, overlaps of intellectual property rights raise concerns over legal certainty and arguably pave the way for undue exploitations of intellectual property protection. Cumulative protection is also of great concern as a serious threat to fundamental principles of intellectual property protection. A question then arises as to whether and to what extent there are genuine interests in protecting industrial designs so that the right balance of interests is maintained between relevant stakeholders.

Thailand protects industrial designs by granting design patents as provided in a sub-category of the Patent Act B.E. 2522 (1979), last amended in B.E. 2542 (1999), Articles 56-65. Design patents are granted to new and industrially applicable industrial designs for a term of ten years from the date of filing of the application. Industrial designs can also qualify for copyright protection as works of applied art that last for twenty-five years. Industrial designs having any utilitarian purpose with few artistic elements may effortlessly be copyrightable. Obtaining copyright protection, thus, becomes overabundant for industrial designs due to the loose requirements. In contrast, obtaining design patent protection proves to be cumbersome and unworthy of the monopoly reward granted by a design patent. Functional industrial designs may obtain design patent protection because there is no explicit prohibition under patent law. It is, therefore, possible for industrial designs to obtain simultaneous protection under both laws. Importantly, overlaps between design patent protection and copyright protection are not explicitly addressed in any existing legislation. Despite the peculiar situations, existing loopholes, and changes in circumstances, the statutory provisions related to industrial design protection have remained unchanged for many decades.

The need to reform Thailand's industrial design protection regime eminently presents and closely intertwines with the interface between design patents and copyright. Under patent law, the current form of industrial design protection tends to convey an obscure image of industrial design protection. This leads to industrial design protection being undervalued even though Thailand can

exploit industrial design protection to encourage economic development and promote cultural identities. There is a doubt whether a patent approach is effective for industrial design protection in the US. Hence, it seems to imply that protecting industrial designs by design patents may not be entirely appropriate for the adequate protection of industrial designs in Thailand.

1.3 Research Objectives

The prime objective of this dissertation is to discover how industrial design protection in Thailand can be improved under the current design patent regime, focusing particularly on the interface between design patents and copyright for more effective protection that preserves the interests of industrial design proprietors and fosters economic and cultural prosperities. In this regard, another objective is to examine the international, regional, and national legal framework related to industrial design protection and learn lessons, particularly on the industrial design/copyright interface, from the experiences of the EU, the United Kingdom [hereinafter the "UK"] and the US to achieve the primary objective. Only a very few pieces of literature provide a rigorous analysis of industrial design protection in developing countries. This dissertation, hence, intends to contribute an academic view on problematic issues that should be resolved to enhance industrial design protection in developing countries through a case study of Thailand.

1.4 Research Questions

The objectives mentioned above lead to the principal research question as to whether and to what extent cumulative protection between design patents and copyright for industrial designs should be permissible in Thailand. More importantly, this question leads us to ascertain whether the current design patent regime in Thailand adequately protects industrial designs and provides insights into how an industrial design protection regime should be enhanced to serve both economic and non-economic justifications and maintain the proper level of protection.

1.5 Research Methodologies

The research examines the historical background of legislation related to industrial design protection in the EU, UK, US, and Thailand, adopting comparative methodologies including black-letter doctrinal, and explanatory approaches to better understand the legal developments and find justifications for how Thailand should reform industrial design protection. In this regard, this dissertation discusses literature, international and national legislation, and case law related to industrial design protection, focusing mainly on the interface between industrial design and copyright protection. A comparative study chosen as a research methodology is pivotal to discovering how the selected jurisdictions deal with industrial design protection and the interrelationship with copyright. It is also necessary to explore fruitful paths toward reaching the goals set out in the research questions. The afore-mentioned research methodologies, coupled with a sociolegal analysis, are also appropriate for scrutinizing paradoxical situations that existed legally and practically in relation to the protection of industrial designs.

1.6 Research Boundaries and Structures

Considering the balance of interests between all stakeholders, the scope of this dissertation centers on how the legal framework should be developed for improving industrial design protection in the context of Thailand. The vast scope of research on industrial design protection restricts the execution of this dissertation to some extent. It should be noted that this dissertation does not delve into matters such as infringement, enforcement, and procedural aspects in detail. This dissertation, hence, confines its analysis to the interface between design patents and copyright for industrial design protection, particularly on cumulative protection with copyright for industrial designs in the domestic dynamics of the existing regimes compared to other jurisdictions.

This dissertation proceeds in five chapters. Chapter 1 introduces the research background, objectives, methodologies, and scope of this research study, as presented above. Chapter 2 discusses both general and legal definitions of industrial designs, the international legal framework related to

industrial design protection, the economic and non-economic significance of industrial design protection and overlapping protection. Chapter 3 reviews the national legal framework related to industrial design protection concerning the interface between design and copyright in the EU, UK, and US. Chapter 4 first examines Thailand's legal framework for industrial design protection and then discusses the interface between design patent protection and copyright protection for industrial designs in Thailand. In this regard, there are three discussions on 1) legal situations: problems causing overlaps under patent and copyright laws, 2) practical situations: statistical analyses on design patents since the enactment of the Thai Patent Act 1975, and 3) the adequacy of the Thai design patent regimes. The last part of chapter 4 comparatively discusses the importance of copyright for industrial design protection in Thailand and approaches to cumulative protection with copyright. Chapter 5 presents summaries, conclusions, recommendations, and proposals of this dissertation.

CHAPTER 2

Industrial Designs, International Legal Frameworks, and Overlapping Protection

This chapter begins with an overview of industrial design protection by examining the definition of industrial designs in terms of general and legal connotations. It then investigates the international legal framework related to industrial design protection, analyzes justifications of industrial design protection, and addresses overlapping/cumulative protection providing the foundation for discussions about the interface between industrial design and copyright protection in the following chapters.

2.1 Defining Industrial Designs

The composition of the term "industrial design" that is pivotal in comprehending the subject is the term "design." According to English grammar, the term "design" can be both a noun and a verb. As a verb, it generally means to create, conceive, draw, devise, or execute a plan for a purpose.[9] As a noun, it refers to a multitude of things ranging from a process of planning to an arrangement of parts. In a general sense, what constitutes the definition of design is nebulous.

"Design is to design a design to produce a design."[10] This sentence reflects the wide range of possible meanings of the term "design." Heskett describes that the first "design" means a general concept, the second "design" points to action, the third "design" refers to a plan, and the final one means a result of "concept made actual."[11] The term "design" is couched in vague meanings and means a plethora of things in the mind of different people. A vast array of possible definitions demonstrates the complications of understanding the subject, reflecting the broadness and assortments of designs. Defining the term "design" is not an easy task but necessary to cultivate an understanding of industrial

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9 *Design*, Longman Dictionary (5th ed. 2009).
10 JOHN HESKETT, DESIGN: A VERY SHORT INTRODUCTION 3 (2005).
11 *Id.* at 3–4.

design protection. Classifications of designs are rather fluid as more than one concept is related to them. Based on contexts, designs can be divided into diverse categories in respect of applications such as graphic designs, interior designs, automotive designs, architectural designs, fashion designs, product designs, and industrial designs.[12] Central to this dissertation is the term "industrial design," as will be examined below. For simplicity, this dissertation explores the definitions of industrial design by dividing them into two categories: general definitions and legal definitions.

2.1.1 General Definitions of Industrial Designs

Since the era of industrialization, industrial designs have increasingly become an integral part of mass-produced consumer products. The general understanding of the term "industrial design" involves the planning of applying an artistic element to an article so that it is aesthetically pleasing and attractive to consumers. Industrial designs contain both the art and science of developing a product's visual characteristics. They are not regarded as inventions aimed at solving technical problems but are designed to function technically and aesthetically. Some designers perceive industrial designs as closely linked to problem-solving processes toward specific goals.[13] The Industrial Designers Society of America (IDSA) defines the term "industrial design" as "the professional practice of designing products, devices, objects, and services used by millions of people around the world every day."[14] This definition relates more to Heskett's second definition of design since it centers on the action of designing. Another simple definition of industrial design is the design of mass-produced consumer products.[15] These definitions demonstrate the characteristics of industrial design, which are applied to utilitarian articles having artistic elements and mass-produced. Simply put, an industrial

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12 The terms "product design" and "industrial design" are sometimes used interchangeably.

13 *See, e.g.*, Tinker Hatfield, a famous shoe designer of *Nike* Inc. (expressing his opinion in a Netflix documentary, "Abstract: The Art of Design").

14 Industrial Designers Society Of America, *What Is Industrial Design?*, IDSA.ORG, https://www.idsa.org/what-industrial-design (last visited Nov. 1, 2021).

15 John Zukowsky, *Industrial Design*, ENCYCLOPEDIA BRITANNICA, (Dec. 14, 2021) https://www.britannica.com/topic/industrial-design.

design can refer to the design applied industrially to products, containing both functional and artistic features.

Moreover, industrial designs are categorized by their appearances in two- or three-dimensional forms, having artistic elements that are not always intertwined with functional elements. Two-dimensional industrial designs include colors, lines, patterns, or other surface ornamentations. In contrast, three-dimensional industrial designs are manifested in more depth, width, and height in the form of shape or configuration. During the industrial revolution, there was a belief that a functioning product was a good product.[16] The notion was proven faulty and later defeated by the principles of "Form follows function" [hereinafter the "3Fs"].[17] On the other hand, there were many opposing views on the principle of the 3Fs. For example, Frank Lloyd Wright, an architect, contended that "form and function should be one, joined in a spiritual union."[18] Raymond Loewy, who was regarded as the father of industrial design,[19] also had a differing view shared in the principle of Most Advanced Yet Acceptable [hereinafter "MAYA"].[20] According to the principle of MAYA, functional constraints, such as math and materials, inevitably restrict product designs; social expectations constrain their acceptance. Put simply, the MAYA principle aims to provide the most advanced design within the boundary of its acceptance; and therefore, forms do not always follow functions. Generally, a good industrial design should be capable of functioning and visually pleasing; both co-existing features that contribute to a good industrial design are not necessarily protected under intellectual property laws. Succinctly put, a so-called "good" design does not automatically qualify for protection as intellectual property: it must satisfy all the threshold requirements under each intellectual property law.

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16 Obasuyi Osa-Francis Efer, *Industrial Design: The Roles and Factors of Aesthetics, Modeling, Styling, Product Brand and Branding in Design/Design Education*, 14 REV. ARTS EDUC. 186 (2017).

17 The principle of 3Fs was first mentioned by Horatio Greenough in 1852; *see generally* HORATIO GREENOUGH, FORM AND FUNCTION: REMARKS ON ART, DESIGN AND ARCHITECTURE (1958).

18 *Form Follows Function*, GUGGENHEIM, https://www.guggenheim.org/teaching-materials/the-architecture-of-the-solomon-r-guggenheim-museum/form-follows-function (last visited May 10, 2021).

19 Raymond Loewy's famous works include the Coca-Cola bottle, the Shell oil logo, and the US Air Force One logo.

20 The first generation iPod was an example of Apple's application of the principle of MAYA; *see* Rikke Friis Dam, *The MAYA Principle: Design for the Future, but Balance it with Your Users' Present*, INTERACTION DESIGN FOUNDATION (May 15, 2021), https://www.interaction-design.org/literature/article/design-for-the-future-but-balance-it-with-your-users-present.

A contributing factor to the differences is the legal definition of protectable industrial designs, as will be examined in 2.1.2.

2.1.2 Legal Definitions of Industrial Designs

Legislatures have never reached a consensus on the legal definition of "industrial design" applied universally.[21] There has been a recognition of industrial design as an object of intellectual property for centuries in both international and national legal frameworks. The Paris Convention recognizes industrial design as an object of intellectual property along with patents, utility models, trademarks, service marks, trade names, indications of source or appellations of origin, and the repression of unfair competition.[22] Aside from the expressed recognition, there is no provision defining the term "industrial design" in any major international agreements related to intellectual property.

The World Intellectual Property Organization [hereinafter the "WIPO"] defines the term "industrial design" as:

> an industrial design constitutes the ornamental aspect of an article. An industrial design may consist of three-dimensional features, such as the shape of an article, or two-dimensional features, such as patterns, lines, or color.[23]

The WIPO definition is easy to understand as it indicates the characteristics of an industrial design that must consist of ornamental features and can be two or three-dimensional. The definition in minute detail refers to designs such as colors, lines, patterns, and shape or configuration. The broad notion of industrial designs provided by WIPO, thus, encompasses works of applied art and some works of artistic craftsmanship, which are the terms often found in the national legislation. Each nation

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21 There is merely WIPO, *Model Law for Developing Countries on Industrial Designs* (1970) [hereinafter the "WIPO Model Law"], of which § 2(1) states that "[a]ny composition of lines or colors or any three-dimensional form, whether or not associated with lines or colors, is deemed to be an industrial design, provided that such composition or form gives a special appearance to a product of industry or handicraft and can serve as a pattern for a product of industry or handicraft.".

22 Paris Convention, *supra* note 5, art. 1(2) ("The protection of industrial property has as its object patents, utility models, industrial designs….").

23 World Intellectual Property Organization, *Industrial Design*, WIPO.INT, https://www.wipo.int/designs/en/ (last visited Nov. 1, 2021).

defines the term "industrial design" differently, but the basic meaning remains roughly the same: the ornamental aspects must exist alongside an article irrespective of being "in" or "on" the actual article.

Works of applied art is a category of works protectable under copyright law in countries including Thailand. The origin of the protection for works of applied art is attributed to the Berne Convention, which defines "literal and artistic works" as including "works of applied art."[24] The category of works of applied art exists for purposes aimed at extending copyright protection to works industrially applied, which possess both artistic and utilitarian features. Examples of works of applied art are expressions applied to furniture, wallpapers, and appliances. Generally, works of applied art can be recognized irrespective of whether the artistic features dominate the utilitarian features.

The Thai Copyright Act,[25] § 4(7) broadly defines the term "works of applied art" as works that have a combination of any artistic work as defined under the Thai Copyright Act[26] "for utility apart from the appreciation in the merit of the work such as for practical use of such work, decorating materials or appliances or using for commercial benefit."[27] It further specifies that artistic value of an artistic work is not required and that artistic works include "photographs and diagrams of such work."[28] According to the statutory definition, an industrial design may not be considered as a work of applied art if the artistic feature incorporated in the industrial design does not qualify as an artistic work listed in the definition.[29]

Unlike works of applied art, works of artistic craftsmanship cover a smaller scope of works passing artistic quality.[30] Works of artistic craftsmanship is a type of works protectable under the

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24 Berne Convention for the Protection of Literary and Artistic Works of Sept. 9, 1886, completed at Paris on May 4, 1896, revised at Berlin on Nov. 13, 1908, completed at Berne on Mar. 20, 1914, revised at Rome on June 2, 1928, at Brussels on June 26, 1948, at Stockholm on July 14, 1967, and at Paris on July 24, 1971, and amended on Sept. 28, 1979 [hereinafter the "Berne Convention"], art. 2(1).

25 Copyright Act B.E. 2537 (1994) came into force on Mar. 21, 1995, as last amended by the Copyright Act (No. 4) B.E. 2561 (2018), effective in Apr. 2019 [hereinafter the "Thai Copyright Act"].

26 The listed artistic works are: 1) work of painting, 2) work of sculpture, 3) work of lithography, 4) work of architecture, 5) photographic work, and 6) work of illustration, map, structure, sketch or three-dimensional work with respect to geography, topography or science.

27 Thai Copyright Act, § 4.

28 *Id*.

29 *Id*.

30 Patrick Masiyakurima, *Copyright in Works of Artistic Craftsmanship: An Analysis*, 36 OXFORD J. LEGAL STUD. 505 (2016).

copyright law of some countries, such as the UK.[31] Notwithstanding many countries adopted the term "works of applied art" as used in the Berne Convention,[32] the UK opted for the term "works of artistic craftsmanship" for reasons including that the Parliament was reluctant to allow cumulation between design and copyright protection for three-dimensional industrial designs, and the influence of the Arts and Crafts Movement.[33] According to the UK CDPA 1988, artistic works include works of artistic craftsmanship.[34] There is no statutory definition under the UK copyright law; what constitutes a work of artistic craftsmanship was established by case law. The criteria in determining whether an article is a work of artistic craftsmanship are not easily comprehensible. The UK courts interpreted the term "artistic craftsmanship" as referring to the artistic quality and established their own criteria in determining the term. Case law indicates that the courts were concerned about affording copyright protection to industrial designs that were three-dimensional functional articles notwithstanding the artistic elements.[35] Hence, works of artistic craftsmanship do not always have the same meaning as industrial designs: they are essentially narrower types of industrial designs.

In many jurisdictions, the term "design" refers to ornamental appearances. Variations of the wording denoting an industrial design can be found in design laws written in other languages. For example, "drawing and model" is sometimes used instead of "design"; "*Dibujo y modelo*" in Spanish; "*Disegno o modello*" in Italian; "*dessin ou modèle*" in French; "*Geschmacksmuster*" in German.[36] Under the French and Benelux law, the term "*dessins et mod`eles*" denotes "two-dimensional drawings or patterns and three-dimensional models."[37]

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31 Works of artistic craftsmanship were introduced in An Act to amend and consolidate the Law relating to Copyright, 1911, c. 46 [hereinafter "Copyright Act 1911"]. The UK chose not to adopt the term "works of applied art" which appears in the Berne Convention.

32 *See* the Berne Convention, *supra* note 24, art. 2(1).

33 It was derived from the Arts and Crafts Exhibition Society formed in London and later expanded to the US and Japan, for instance; *see* Masiyakurima, *supra* note 30 at 509.

34 Copyright, Designs and Patents Act 1988, Eliz. 2, c. 48 [hereinafter the "CDPA 1988"], § 4(1)(c).

35 *See* Masiyakurima, *supra* note 30, at 508.

36 DAVID STONE, EU DESIGN LAW: A PRACTITIONERS' GUIDE (2d ed. 2016) [hereinafter "STONE, EU DESIGN LAW"].

37 UNCTAD-ICTSD, RESOURCE BOOK ON TRIPS AND DEVELOPMENT 323 (2005).

A study on design protection in the EU shows that the legal definitions of design laid down in the national design laws of EU Member States do not mirror each other.[38] Under the Design Directive[39] and the Design Regulation,[40] the definition of eligible designs covers both two- or three-dimensional designs for their "appearance of the whole or part of a product resulting from the features of, in particular, the lines, contours, colours, shape, texture and/or materials of the product itself and/or its ornamentation."[41] The term "appearance" chiefly raises issues as to whether it must be visible to the naked eye and whether it covers a part of the whole appearance. In the UK, it is apparent from the Registered Design Regulation 2001 that the "design" means:

> the appearance of the whole or a part of a product resulting from the features of, in particular, the lines, contours, colours, shape, texture or materials of the product or its ornamentation.[42]

As regards the visibility of designs, many countries require that designs eligible for protection must be visible. The Design Directive and Design Regulation explicitly afford protection to an industrial design for a feature that was "shown visibly in an application,"[43] and that "[p]rotection should not be extended to those component parts which are not visible during normal use of a product, or to those features of such part which are not visible when the part is mounted."[44] The term "texture" means "part of a protected design only to the extent that it can be seen;"[45] how a product feels to the tough is irrelevant.[46] In sum, the protectable "appearance" in a general sense means "only the external aspect, capable of visual appreciation."[47]

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38 UMA SUTHERSANEN, DAVID C. MUSKER, & MARC D. MIMLER, LEGAL REVIEW ON INDUSTRIAL DESIGN PROTECTION IN EUROPE (2016) [hereinafter "SUTHERSANEN, LEGAL REVIEW ON INDUSTRIAL DESIGN PROTECTION IN EUROPE"].

39 Directive 98/71, of the European Parliament and of the Council of 13 October 1998 on the Legal Protection of Designs, 1998 O.J. (L 289) 28 (EC) [hereinafter the "Design Directive"].

40 Council Regulation 6/2002, of 12 December 2001 on Community Designs, 2001 O.J. (L 3) 1 (EC) [hereinafter the "Design Regulation"].

41 *See* Design Directive, *supra* note 39, art. 1(a); Design Regulation, *supra* note 40, art. 3 (a).

42 Registered Design Regulation 2001 (SI 2001/3949). The Act was enacted on Dec. 8, 2001; and came into force on Oct. 28, 2001. The Regulation implemented provisions of the Design Directive.

43 Design Directive, *supra* note 39, rec. 11.

44 *Id.* rec. 12 & art. 3; Design Regulation, *supra* note 40, rec. 12 & art. 2.

45 STONE, EU DESIGN LAW, *supra* note 36, at 52.

46 *Id.*

47 WIPO Model Law, *supra* note 21, at 17.

Another issue concerns the appearance of a part of a product. There exists an issue as to whether partial designs are included in the definition of the protectable subject-matter. In some countries, it is unquestionable that a partial design is eligible for protection. In the US, the protection of partial designs is confirmed in case law.[48] The UK statutory definition explicitly covers "part of an article."[49] In the EU, the eligibility for protection is evident in the definition of the term "design" under the Design Directive and Design Regulation: "'design' means the appearance of the whole or a part of a product."[50]

Moreover, there are some differential treatments of designs according to their dimensions. In the UK, the CDPA 1988 distinguishes between two- or three-dimensional designs, defining the term "design" as meaning "the shape or configuration (whether internal or external) of the whole or part of an article, other than surface decoration."[51] The Act specifies that design right does not subsist in surface decoration.[52] The provision excludes two-dimensional designs of surface decoration from protection but confers protection on three-dimensional designs.[53] Nevertheless, the two-dimensional designs are still eligible subject-matter for copyright protection.

In the US, the obscure language used in the statutory provision clearly shows the significance of clarifying the issue. The US Patent Act, § 171 merely prescribes that the eligible subject-matter must be an "article of manufacture" but remains silent on details of characteristics and examples of eligible designs.[54] Consequently, what constitutes an article of manufacture must instead be inferred from academic articles and case law. The term "industrial design" does not appear expressly in US legislation. The term "useful arts," which appears in the US Constitution, Article 1, Section 8, Clause

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48 *In re* Zahn, 617 F.2d 261, 267 (C.C.P.A. 1980) ("[A] claim to a design [for an article of manufacture] which is embodied in less than all of an article of manufacture ....") (cited in Sarah Burstein, *Costly Designs*, 77 OHIO ST. L.J. 107 (2016), at 114 n.49; *see, e.g.*, Patryk Oskar Rogowski, *Damages for Partial Product Design Patent Infringement*, 33 TOURO L. REV. 1243, 1281 (2017).

49 CDPA 1988, §§ 51(3), 213(2).

50 Design Directive, *supra* note 39, art. 1(a); Design Regulation, *supra* note 40, art. 3 (a).

51 CDPA 1988, §§ 51(3), 213(2).

52 *Id.* § 213(3)(c).

53 *Id.* § 213(3)(b) (stating that design right subsists in features of shape or configuration of an article except when those features: "(i) enable the article to be connected to, or placed in, around or against, another article so that either article may perform its function; or (ii) are dependent upon the appearance of another article of which the article is intended by the designer to form an integral part.").

54 *See* 35 U.S.C. § 171 (Supp. I 2013).

8, refers to inventions rather than arts with a utilitarian purpose.[55] In Thailand, legislation related to industrial design protection is the Patent Act, which defines the term "design" as meaning "any form or composition of lines or colors which gives a special appearance to a product of industry."[56] The definition also includes a "handicraft" serving as a pattern for "design" under the Thai patent law, but the term is undefined.

Without a compulsory standard, it is not surprising to find that legal definitions of industrial designs in many countries are unintentionally expansive. Legislation related to industrial designs also varies from state to state, which further complicates understanding what industrial designs are eligible for protection. Compared to other intellectual property, the subject-matter protectable under design legislation is relatively uncertain in ways that eligible design features are not clearly specified other than a broad notion of being decorative or ornamental elements and that they must not be solely dictated by technical functions.[57] The dual nature of an industrial design containing both functional and aesthetic features leads to a complicated location in the field of intellectual property laws. Protecting industrial designs is legally challenging since intellectual property separates the protection of technical innovations and aesthetic creations under the different legal frameworks.

In the rest of this dissertation, the term "industrial design" will be used as having the same connotations as the WIPO's definition, which provides that an industrial design constitutes the ornamental aspects of an article and consists of two-dimensional features such as lines, patterns, and colors; or three-dimensional features such as shape or configuration.

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55 *See* U.S. CONST. art. 1, § 8, cl. 8 ("To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries….").

56 Thai Patent Act B.E. 2522 (1979), last amended by Act (No. 3) B.E. 2542 (1999) [hereinafter "Thai Patent Act"], § 3 ("'design' means any form or composition of lines or colors which gives a special appearance to a product and can serve as a pattern for a product of industry or handicraft.").

57 *See* Design Regulation, *supra* note 40, art. 8 (1).

2.2 International Legal Framework related to Industrial Design Protection

As with other intellectual property, an industrial design has long been an object of intellectual property protection in several international agreements, with the recent trend leaning toward broader intellectual property protection. Intellectual property can be divided into two main categories of industrial property for one, and cultural and artistic property for the other. Arguably, an industrial design falls into the latter category because industrial design rights protect the external appearance of a product, which is a medium of expression that possesses some features of cultural and artistic property.

The absence of international harmonization can cause problems arising from several unclear aspects of industrial design protection, prominently the lack of an explicit means and detailed standards. The Hague Agreement[58] merely establishes a unified system for registering industrial designs in contracting parties. Among international agreements related to intellectual property, the Paris Convention provides specifically for the protection of industrial designs, while the Berne Convention introduces the protection of applied art but leaves Member countries to regulate the subject-matter under domestic legislation. The TRIPS Agreement provides more details about industrial design protection but is unclear on several issues.

2.2.1 Paris Convention

The Paris Convention[59] expressly designates industrial design as "a separate branch of intellectual property," setting certain standards for regulating industrial design protection within the

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[58] Hague Agreement Concerning the International Registration of Industrial Designs [hereinafter the "Hague Agreement"]. The Hague Agreement was initially concluded in 1925, and then revised at London (1934) and The Hague (1960). The Agreement was later supplemented by an additional Act of Monaco (1961); and in 1967, the Complementary Act of Stockholm was adopted. There was the Protocol of Geneva concluded in 1975, which was later amended in 1979. Finally, the Geneva Act was adopted in 1999. Note that the Hague Agreement now comprises two Acts, the Hague Act (1960) and the Geneva Act (1999). It is possible to become a Contracting Party to one of the two Acts or both. The London Act and the Additional Act of Monaco were terminated in 2016.

[59] *See* Paris Convention, *supra* note 5.

framework of international industrial property law.[60] The Paris Convention recognizes industrial design as industrial property in Article 1(2), which states:[61]

> The protection of industrial property has as its object patents, utility models, industrial designs, trademarks, service marks, trade names, indications of source or appellations of origin, and the repression of unfair competition.

As with the Bern Convention and the TRIPS Agreement, the Paris Convention is silent on the definition of industrial designs. Initially, an issue arose as to whether Member countries should be obliged to protect industrial designs; it was resolved in the 1958 Lisbon Revision. Subsequently, Article 5*quinquies* obliges member states to protect industrial designs but does not further specify how industrial designs should be protected in each Member country.[62] As a result, Member countries are given considerable autonomy since there are no compulsory standards concerning legislation and formalities for the protection of industrial designs. Article 4A(1) provides for the right of priority which also applies to industrial designs:

> Any person who has duly filed an application for a patent, or for the registration of a utility model, or of an industrial design, or of a trademark, in one of the countries of the Union, or his successor in title, shall enjoy, for the purpose of filing in the other countries, a right of priority during the periods hereinafter fixed.

Put simply, the filing of an industrial design made in a Member country within six months prior to the date of a subsequent filing in another Member country equates to the regular filing in the latter Member country[63] which cannot be "invalidated by reason of any acts accomplished in the interval."[64] In this regard, the right of priority is not affected by another filing and the putting on sale of copies of the design.[65]

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60 Jerome H. Reichman, *Design Protection in Domestic and Foreign Copyright Law: From the Berne Revision of 1948 to the Copyright Act of 1976*, 1983 DUKE L.J. 1143, 1159 n.85 (1983) [hereinafter "Reichman, *Design Protection in Domestic and Foreign Copyright Law*"].

61 Paris Convention, art. 1(2).

62 *Id.* art. 5*quinquies* (stating that "industrial designs shall be protected in all countries of the Union."). The provision was added in the Lisbon revision of 1958.

63 *Id*. art. 4C(1) (setting forth that "[t]he periods of priority… shall be twelve months for patents and utility models, and six months for industrial designs and trademarks.").

64 *Id.* art. 4B.

65 *Id*.

Article 5B prohibits any forfeiture of industrial designs resulting from "failure to work" or from "the importation of articles corresponding to those which are protected."[66] In this regard, Member countries are free to determine what constitutes such actions. Article 5D states that "[n]o indication or mention… of the deposit of the industrial design, shall be required upon the goods as a condition of recognition of the right to protection," thereby facilitating the protection of industrial designs in Member countries.[67] All in all, the Paris Convention serves as "regulatory guidance in respect of national treatment, priority rights in filing, exhibition exceptions, marking requirements, grace period for renewal, and international traffic: all these regulations, by implication, suggest a registration based protection regime."[68] These implications do not prevent Member countries from protecting industrial designs under a non-registration-based protection regime. The divergence, thus, exists between the registration-based protection regime and the non-registration-based protection regime, implemented differently for industrial design protection.

2.2.2 Berne Convention

The Berne Convention does not set out provisions specifically and directly related to industrial designs, but relevant provisions apply to industrial design protection.[69] Article 2(1) provides the non-exclusive list of protectable "literary and artistic works," including "every production in the literary, scientific and artistic domain, whatever may be the mode or form of its expression."[70] Protectable works listed in the provision include:

> works of drawing, painting, architecture, sculpture, engraving…works of applied art; illustrations, maps, plans, sketches and three-dimensional works relative to geography, topography, architecture or science.[71]

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66 *Id*. art. 5B was added in The Hague revision (1925) and the London revision (1934).

67 Pierre Maugue, *The International Protection of Industrial Designs under the International Conventions International Developments in Industrial Design Law*, 19 U. BALT. L. REV. 393 (1989) (describing details about the provision which was added at the 1926 Hague Revision).

68 UMA SUTHERSANEN, DESIGN LAW IN EUROPE 433 (2000) [hereinafter "SUTHERSANEN, DESIGN LAW IN EUROPE"].

69 Berne Convention, *supra* note 24.

70 *Id.* art. 2(1).

71 Berne Convention, *supra* note 17, art. 2(1).

Some of these works are relevant to industrial design protection because they can be regarded as ornamental features applied to or embodied in an article that may qualify for protection. Although the term "industrial design" is not listed, there may be assimilated into works of applied art.[72] Historically, the initial 1886 Act did not include industrial designs and works of applied art in the list. The term "works of applied art" was first mentioned in the 1908 Berlin Act.[73] Article 2 of the Berlin Act states:

> Works of art applied to industrial purposes shall be protected so far as the legislation of each country allows.

The interface between works of applied art and copyright protection was, then, nebulous, as reflected in the Berlin Revision providing leeway in the protection of works of applied art. The 1948 Brussels Act expressly provided for the protection of works of applied art and industrial designs in Article 2(5), which stated:

> It shall be a matter for legislation in the countries of the Union to determine the extent of the application of their laws to works of applied art and industrial designs and models, as well as the conditions under which such works, designs and models shall be protected. Works protected in the country of origin solely as designs and models shall be entitled in other countries of the Union only to such protection as is granted to designs and models in such countries.[74]

Article 2(5) recognized industrial designs as protectable subject-matter but did not further define the term. The provision was later revised and is now Article 2(7),[75] which states:

> Subject to the provisions of Article 7(4) of this Convention, it shall be a matter for legislation in the countries of the Union to determine the extent of the application of their laws to works of applied art and industrial designs and models, as well as the conditions under which such works, designs and models shall be protected. Works protected in the country of origin solely as designs and models shall be entitled in another country of the Union only to such special protection as is granted in that

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72 *See* SAM RICKETSON & JANE C. GINSBURG, INTERNATIONAL COPYRIGHT AND NEIGHBOURING RIGHTS: THE BERNE CONVENTION AND BEYOND (2nd ed. 2016), ¶ 8.59 (noting that the Berne Convention does not further define the term "applied art" and explaining that during the Berlin (1908) and Rome (1928) revision conferences, it was a disputed issue as to whether works of applied art included those having industrial purposes).

73 The Berlin Act revised the Berne Convention on November 13, 1908.

74 The Brussels Act was concluded on June 26, 1948.

75 The present text was adopted at Stockholm (1967) and Paris (1971). A revision in Stockholm provided that a country had to protect works of applied art as artistic works under copyright law when there was no sui generis protection for designs and models in the country. In contrast, a revision in Paris required reciprocity: when works were protected as designs and models in a country of origin, the works could only be protected as such in other countries.

> country to designs and models; however, if no such special protection is granted in that country, such works shall be protected as artistic works.

Importantly, Article 2(7) does not restrict the means and requirements for the protection afforded to industrial designs in each Member country, but it compels them to protect industrial designs under national legislation deemed appropriate in each jurisdiction. Hence, legal means related to industrial design protection can be in the form of sui generis design or copyright legislation. If a Member country does not promulgate sui generis design law, it must protect industrial designs as artistic works under copyright law for a minimum term of twenty-five years from the making of the work, as set forth in Article 7(4):

> It shall be a matter for legislation in the countries of the Union to determine the term of protection of photographic works and that of works of applied art in so far as they are protected as artistic works; however, this term shall last at least until the end of a period of twenty-five years from the making of such a work.[76]

Moreover, the provision enables the proprietor of an industrial design to receive the same legal treatments in another Member country to protect their work. For example, suppose an industrial design is protected under sui generis design law in the country of origin. In that case, the protection obtained in another Member country will also be under sui generis design law. A different scenario occurs when there is no sui generis design protection afforded in another Member country; an industrial design must be protected as artistic works under copyright law. Should both countries allow cumulative protection with copyright, an industrial design protected under the copyright law of the country of origin will also be protected under the copyright law of another Member country. Apart from ensuring the protection, the Berne Convention shuns several salient points that can untangle the complex interface between industrial design and copyright protection. The category of "works of applied art" and "industrial designs and models" are recognized side by side, equating each other and "perpetuat[ing] the design paradox whereby the subject-matter at hand is both copyright and industrial property subject-matter."[77]

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[76] Berne Convention, art. 7(4).

[77] SUTHERSANEN, DESIGN LAW IN EUROPE, *supra* note 68, at 427.

2.2.3 TRIPS Agreement

The TRIPS Agreement,[78] which is administered by the World Trade Organization (WTO), sets forth minimum substantive standards of industrial design protection in Part II, Section 4.[79] Articles 2.1 and 9.1 of the TRIPS Agreement incorporate provisions related to industrial designs in the Paris Convention and the Berne Convention.[80] The recognition of industrial design protection under the TRIPS Agreement also means that the protection is subject to the principles of national treatment and most-favored nation treatment (MFN) which generally mean:

1) A Member country must accord to the nations of other Member countries treatment no less favorable to that provided to its own nationals.[81]
2) Any favorable treatment provided to nationals of any country must also be provided for the nationals of all WTO Member countries.[82]

Principally, the TRIPS Agreement is ambivalent about industrial design protection concerning several aspects, namely the nature and conditions of protection. Member countries are not obliged to establish a registration system for protecting industrial designs and hence are free to determine how an industrial design is protected. Article 25.1 provides options concerning the requirements for protection that Member countries may protect "independently created industrial designs that are new or original" and describes that "designs are not new or original if they do not significantly differ from known designs or combinations of known design features."[83] In other words, the requirements for

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78 *See supra* note 6.

79 The inclusion of industrial design in the TRIPS Agreement is purported to make the US conform to other industrialized nations with respect to industrial design protection; *see* UNCTAD-ICTSD, RESOURCE BOOK ON TRIPS AND DEVELOPMENT 327 (2005).

80 *See* TRIPS Agreement, art.2.1 ("In respect of Parts II, III and IV of this Agreement, Members shall comply with Articles 1 through 12, and Article 19, of the Paris Convention (1967)."); art.9.1 ("Members shall comply with Articles 1 through 21 of the Berne Convention (1971) and the Appendix thereto. However, Members shall not have rights or obligations under this Agreement in respect of the rights conferred under Article 6*bis* of that Convention or of the rights derived therefrom.").

81 TRIPS Agreement, art 3.

82 *Id.* art. 4.

83 *Id*. art. 25.1 ("Members shall provide for the protection of independently created industrial designs that are new or original. Members may provide that designs are not new or original if they do not significantly differ from known designs or combinations of known design features.").

protection provided under the TRIPS Agreement are independent creation, novelty, and originality. Member countries must protect independently created industrial designs but are not obliged to impose both novelty and originality as the requirements for protection; choosing novelty or originality will suffice. The freedom of choice unavoidably leads to the divergence of legal protection in Member countries.

Furthermore, the considerable leeway offered by the TRIPS Agreement raises a question about means of protection for industrial designs since the novelty and originality requirements are the very essence of different intellectual property paradigms, namely patents and copyright, respectively. The term "or" firmly indicates that the TRIPS Agreement does not compel Member countries to adopt both requirements and reflects that it is incognizant of the suitable approach to industrial design protection. The provision also provides that Member countries may exclude industrial designs "dictated essentially by technical or functional considerations" from the protection.[84] The exclusion of functional designs is adopted in many jurisdictions, including the EU and Japan, whereas Thailand is silent on the exclusion under patent law.

Interestingly, Article 25.2 of the TRIPS Agreement demands that Member countries must facilitate the protection of textile designs under industrial design or copyright laws:

> Each Member shall ensure that requirements for securing protection for textile designs, in particular regarding any cost, examination or publication, do not unreasonably impair the opportunity to seek and obtain such protection. Members shall be free to meet this obligation through industrial design law or copyright law.[85]

Another provision concerning the protection of industrial designs in the TRIPS Agreement is Article 26.1, which provides that the industrial design rightsholders have the rights to:

> prevent third parties not having the owner's consent from making, selling or importing articles bearing or embodying a design which is a copy, or substantially a copy, of the protected design, when such acts are undertaken for commercial purposes.

Article 26.2 provides that exceptions laid down in the legislation of Member countries must not:

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84 *Id*.
85 *Id.* art. 25.2.

> unreasonably conflict with the normal exploitation of protected industrial designs and do not unreasonably prejudice the legitimate interests of the owner of the protected design, taking account of the legitimate interests of third parties.

The wording mostly mirrors the three-step tests introduced in several international treaties related to various kinds of intellectual property. The exclusions then rest at the discretion of Member countries under the conditions laid down in Article 26.2. In addition, Article 62.1 of the TRIPS Agreement is a basis for allowing Member countries to legislate on procedures conducted within a reasonable time regarding the grant and registration of rights. The provision is an important framework for a more effective system of industrial design protection in Member countries. The TRIPS Agreement also provides a minimum duration of protection in Article 26.3 which states that "[t]he duration of protection available shall amount to at least ten years." The ten-year period of protection is equal to that afforded to design patent protection in Thailand.

2.2.4 Hague Agreement

The Hague Agreement [86] establishes an international registration system of industrial designs.[87] A single application filed with the International Bureau of the WIPO or a national office enables an applicant to obtain the protection of their industrial designs in more than one of the Hague Agreement's contracting countries as designated in the international application.[88] The possibility of filing the application is provided for natural persons or juristic persons that 1) have a nationality of a contracting country, or 2) have a domicile or have a real and effective industrial or commercial establishment in the territory of a contracting country.[89] Through a single international application, the maximum of one hundred industrial designs can be registered if they are in the same class contained in the Locarno Agreement Establishing an International Classification for Industrial Designs (1968)[90]

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86 *See supra* note 58.
87 *See* Hague Agreement, art. 10.
88 *See id.* art. 14.
89 Having a habitual residence is also possible for contracting parties to the Geneva Act (1999). *See* WIPO, *Hague Agreement: Main Features and Advantages* (2012), at 4.
90 *See* Hague Agreement, art. 5.

[hereinafter the "Locarno Agreement"].[91] An international application can be conducted in English, French, or Spanish and designate at least one contracting party. The registered industrial design is protected for an initial term of five years, which is renewable to obtain the maximum period of fifteen years from the date of the international registration.[92] In cases where the designated countries provide a longer term of protection, the registered industrial designs have the term of protection in accordance with the legislation of those countries.

The Hague system chiefly facilitates the filing procedures for those wishing to obtain industrial design protection in one or more contracting parties to the Hague Agreement, whereas it does not cover the substantive aspects, namely the threshold requirements and the scope of protection, since they must be in accordance with the legislation of the contracting countries in which the protection is sought. As already described above, the Hague Agreement offers a number of advantages concerning procedural aspects that attract industrial design registrations, particularly saving costs and time for the industrial design proprietors in those contracting parties. In recent years, leading industrialized countries have joined the Hague Agreement, affirming the benefits it brings increasingly to the protection of industrial designs.[93] According to WIPO statistics, in 2016, developed countries occupied the majority number of applications filed for industrial design protection under the Hague System. The statistic in that year is particularly meaningful because it is the year after the US and Japan became contracting parties to the Hague Agreement in 2015. Most filed products are in the category of Information and Communications Technology (ICT), cosmetics, health, household products, and furniture.

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91 Locarno Agreement Establishing an International Classification for Industrial Designs, signed at Locarno on Oct. 8, 1968, as amended on Sept. 28, 1979 [hereinafter the "Locarno Agreement"]. The Locarno Agreement is administered by the WIPO.

92 *Id.* art. 17(3)(a) (obliging Contracting Parties to provide at least 15 years term of protection).

93 As of March 2022, there are 76 contracting parties. The leading industrialized contracting parties include the EU (since Jan. 1, 2018), the UK (since June 13, 2018), and Japan and the US (both since May 13, 2015). *See* Hague System, WIPO, https://www.wipo.int/hague/en/ (last visited Mar. 30, 2022).

2.2.5 Locarno Agreement

The Locarno Agreement establishes an international classification for registration of industrial designs. The International Classification for Industrial Designs [hereinafter the "Locarno Classification"] consists of a total of 32 classes, 237 subclasses, as well as providing a list of 5,219 entries of goods in alphabetical order.[94] Such a detailed classification and a list present a clear picture as to the definitions of industrial designs. Similar to the Hague Agreement, the Locarno Agreement governs merely administrative aspects and does not concern the requirements and scope of protection of industrial designs. The Locarno Classification is applied not only by 59 contracting parties to the Locarno Agreement but also by the International Bureau of the WIPO in administering the Hague Agreement.[95] Thailand uses the Locarno Classification as a guideline on the registration of industrial designs despite being a non-member of both the Locarno Agreement and the Hague Agreement.

2.3 Justifications of Industrial Design Protection

Discerning the significance of industrial design protection is important to discover whether it is genuinely worth the effort. Industrial designs increase the economic value of products and thus deserve a limited legal monopoly. Nevertheless, the protection afforded to industrial designs should maintain the proper balance of interests, especially considering the benefits to the public at large alongside the exclusive rights granted for industrial designs. This section analyzes justifications of industrial design protection through the lens of economic and non-economic significance since these two factors are pivotal in striking a balance between the interests of the design rightsholders and those of the public.

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94 The 13th edition of the Locarno Classification entered into force on Jan. 1, 2021. *See About the Locarno Classification*, WIPO, https://www.wipo.int/classifications/locarno/en/preface.html (last visited Mar. 30, 2022).

95 Other organizations using the Locarno Classification include the EU Intellectual Property Office (EUIPO), the Benelux Office for Intellectual Property (BOIP), and the African Intellectual Property Organization (OAPI).

2.3.1 Economic Significance

As with other intellectual property, industrial designs serve as a critical component in the success of businesses with respect to the market competition and, thus, play a crucial role in promoting economic development. From the company's perspective, industrial designs have the power of persuasion, adding commercial values to products, facilitating the market success of products, and giving a competitive edge to the company. To win a market success, innovation in designs is a highly effective means of influencing consumers' purchase decisions.[96] From the consumer's viewpoint, industrial designs can be a decisive factor in the purchase decision because industrial designs often lead to a temperamentally based decision for consumers who tend to choose products with the appearances that they are temperamentally aligned with. The case of *Apple* Inc.'s products can be a good example. New designs of iPhones have been successfully attracting consumers' attention, leading consumers to purchase them, even though the functional aspects are insignificantly different from the previously released models. In addition, *Apple* Inc. uses industrial designs as part of its marketing strategy, which raises the value of its products, adhering initially to the design principles of industrial designs.[97] The company hinges on industrial designs as a critical component for the market success, distinguishing *Apple* products from those of other companies: for example, *Apple*'s Macintosh and iPod were on the list of the 12 best designs from the last century, chosen to celebrate the World industrial design day in 2013.[98]

With the advancement of technologies, industrial design protection appears to be in vogue as it continues to be crucial to the economic significance of technological products. Nowadays, many

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96 *See* DEREK THOMPSON, HIT MAKERS: THE SCIENCE OF POPULARITY IN AN AGE OF DISTRACTION 7 (2017) ("Most consumers are simultaneously *neophilic*—curious to discover new things—and deeply *neophobic*—afraid of anything that's too new. The best hit makers are gifted at creating moments of meaning by marrying new and old, anxiety and understanding.").

97 *See* Neil Patel, *7 Key Strategies That You Must Learn from Apple's Marketing*, Neil Patel Digital (2018) (describing how Apple Inc. succeeded through emphasizing the unique value proposition, which is "beautiful design that works right out of the box with ever-smaller packaging."), available at https://neilpatel.com/blog/7-key-strategies-that-you-must-learn-from-apples-marketing/ (last visited Jan.18, 2021).

98 Monique Rivalland, *The 12 Best Designs from the Past 100 Years*, CNN, https://edition.cnn.com/2013/06/28/tech/best-design-100-years-zaccai/index.html (last visited Jan. 18, 2021).

technological products share some commonness that mitigates their distinctiveness. By utilizing industrial designs together with cutting-edge technologies, products can be more appealing to consumers. An example of a product design maneuver that can drive a company's success in the market is the case of *Nokia* Cooperation, the Finnish consumer electronics company, which marketed its products as "user-friendly phones." In 1998, Nokia was ranked the world's best-selling mobile phone brand,[99] and in 2007, Nokia occupied 36.9 percent of mobile phones sold worldwide.[100] Nokia's past success stories were, in part, due to the story of their memorable industrial designs.[101]

Furthermore, industrial designs are relevant to innovation as an essential element in developing an innovative product since the aimed appearances encourage solutions to technical and commercial problems limited to a particular industrial design. To illustrate this, suppose Company A desires to sell the world's lightest and thinnest mobile phones, instructing industrial designers to produce industrial designs corresponding with those objectives. At the same time, engineering teams must develop technical elements to embrace the specified design concept. As a result, industrial designs can drive innovation through the aesthetic and functional features having an economic impact on stimulating consumer purchases of products in which the designs are embodied.

In the EU, a study conducted by the EU Intellectual Property Office (EUIPO) and the European Patent Office (EPO) shows that industrial design-intensive industries stimulated economic growth as they increased the number of employment and gross domestic product (GDP) of the region.[102] A key component producing the result is an innovation-friendly environment of the EU legal

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99 *See Our history*, NOKIA, https://www.nokia.com/about-us/company/our-history/ (last visited Jan.17, 2021.).

100 *See* Tom Fogden, *Can Nokia Still Succeed in the Smartphone Market?*, Tech.co, (May 25, 2018, 6:21 AM), https://tech.co/news/nokia-succeed-smartphone-market-2018-05 (last visited Apr. 5, 2018).

101 Nokia 3310 was one of the world best-selling phones, Nokia 6210 was "the ultra-chic business phone" and Nokia 8210 was "Nokia's smallest and lightest phone to date aimed at the fashionable user," *see* Steven Braggs, *Mobile phones - design history*, Mobile Phone History, https://www.mobilephonehistory.co.uk/history/design_history.php (last visited Jan.19, 2021).

102 EUROPEAN UNION INTELLECTUAL PROPERTY OFFICE & EUROPEAN PATENT OFFICE, INTELLECTUAL PROPERTY RIGHTS INTENSIVE INDUSTRIES AND ECONOMIC PERFORMANCE IN THE EUROPEAN UNION: INDUSTRY-LEVEL ANALYSIS REPORT (2d ed. 2016), https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/IPContributionStudy/performance_in_the_European_Union/performance_in_the_European_Union_full.pdf (last visited May 18, 2021).

framework aimed at the EU economic development.[103] Importantly, economic justification is the main reason for the reform of industrial design protection in the EU.[104]

In Thailand, there have been attempts to promote the creative economy in which industrial design-intensive entities play a vital role.[105] In 2005, Thailand Creative & Design Center (TCDC) was founded as "a source of intellectual entertainment" integrating culture, knowledge, and technology; and later in 2018, the Creative Economy Agency, a public organization, was established to promote the creative economy specifically.[106] Thailand's creative industries, including design, furniture, jewelry, and fashion industries, account for roughly 13% of its gross domestic product (GDP) in 2014 and are expected to flourish since establishing Thailand as the creative industrial hub of ASEAN is on the Thai government's agenda.[107] To become a smart high-income nation through the innovation-driven economy, the Thai government has set up "Thailand 4.0," an economic development model designed to promote innovation in specific industries particularly related to science and technology for purposes of achieving four goals, which are the "economic prosperity, social well-being, raising human values, and environmental protection."[108] As the second-largest creative industries in Thailand, the design sectors play a prominent role in fostering the creative economy through innovative designs that can serve as a medium of expression indirectly or directly reflecting the economic prosperity, social well-being, human values, and environmental issues.[109] Industrial designs can exemplify objects of creativity, an asset to the value-based economy targeted in the Thailand 4.0 policies. Consequently, effective industrial design protection regimes are essential for the creative economy's success since it

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103 *See* EUROPE ECONOMICS CHANCERY HOUSE, THE ECONOMIC REVIEW OF INDUSTRIAL DESIGN IN EUROPE – FINAL REPORT (2015) [hereinafter "EUROPE ECONOMICS CHANCERY HOUSE, THE ECONOMIC REVIEW OF INDUSTRIAL DESIGN"].

104 *See infra* 3.1.1 (examining the beginning of the EU design legislations).

105 *See Factsheet Design Sector in Thailand*, Netherlands Worldwide, https://www.netherlandsworldwide.nl/documents/publications/2017/07/03/design-sector (last visited Jan. 18, 2021).

106 *About TCDC*, TCDC, https://web.tcdc.or.th/en/aboutus (last visited May 18, 2021).

107 Factsheet, *supra* note 105, at 1.

108 *What is Thailand 4.0*, Royal Thai Embassy Washington DC, https://thaiembdc.org/thailand-4-0-2/ (last visited May 18, 2021).

109 *See supra* note 105; *see also* Office of the National Economic and Social Development Council, *The Tenth National Economic and Social Development Plan and Creative Economy*, 2007-2011 (emphasizing the creative economy as part of the National's strategic economic development).

encourages innovation in the creative industries, contributing considerably to the nation's economic development.

The unregulated system of industrial design protection can harm the free-market economy underlying the justification of intellectual property law. The legal protection of industrial designs is indispensable to stop the free-riding of ideas and expressions in the form of piracy. Pirated designs are detrimental to business interests since the pirates can sell products at a lower price than genuine products with authentic industrial designs. There is always the possibility that consumers may opt to purchase pirated goods, albeit acknowledging the fact. Moreover, in the context of developing countries, there is still the possibility of utilizing industrial design protection to stimulate economic growth rather than obstructing it for the cost of domestic consumers. To avoid a "zero-sum game" that benefits the one-sided design rightsholders, it is of utmost importance to establish the legal framework that strikes a balance between the interests of the industrial design proprietors and those of the public.

2.3.2 Non-economic Significance

In addition to the economic significance as described above, industrial designs have great significance related to cultural, social, and psychological effects on people. Culturally, industrial designs can be a medium for cultural expressions, helping people escape from the humdrum existence of life, animating ordinary objects to be of some aesthetic value as Kur and Dreier described that:

> Design has developed into an important and omnipresent form of cultural expression, quite apart from the fact that it also constitutes an eminent marketing tool.[110]

The cultural expressions through industrial designs are widespread, albeit for a commercial purpose. In the EU, the significance of culture is affirmed in the Treaty on the Functioning of the European Union [hereinafter the "TFEU"], which provides that the EU "should contribute to the flowering of the cultures of the Member States while respecting their national and regional diversity

[110] ANNETTE KUR & THOMAS DREIER, EUROPEAN INTELLECTUAL PROPERTY LAW: TEXT, CASES AND MATERIALS 354 (2013).

and at the same time bringing the common cultural heritage to the fore."[111] The TFEU attaches significance to the economy and culture of the Member States since both aspects can complement each other.[112] Moreover, an industrial design brings out the diversity of culture through the aesthetic appearance applied to or embodied in an object. In some countries, including Thailand, each region promotes the local culture using industrial designs to represent the cultural identities or stories of people and places. According to the UNESCO Universal Declaration on Cultural Diversity,[113] cultural diversity is necessary for humankind and "constitute[s] a sacred duty which all the nations must fulfill in a spirit of mutual assistance and concern."[114] The statement is also affirmed in the Preamble of the Declaration, which signifies a number of aspects related to cultural diversity. Of particular relevance to intellectual property is the relationship between cultural diversity and creativity.[115] Importantly, industrial designs play an active role in developing creative cultures. Although the prominent role of industrial designs does not directly pertain to improving the quality of lives through innovation in some scientific fields, protecting industrial designs is necessary to preserve the enjoyment of lives in the world increasingly influenced by modern technologies. In preserving traditional culture, industrial designs often serve as a means of expression throughout the history of many nations. Even nowadays, the conglomeration of industrial designs and traditional cultural expressions not only promotes a sense of national pride but also increases monetary values to related objects.

From consumers' perspectives, industrial designs allow product differentiation as well as socio-economic differentiation among consumers. It is not surprising to find that industrial designs can denote people's social status by functioning as a trademark. For example, a handbag with a checker

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111 Consolidated versions of the Treaty on European Union and the Treaty on the Functioning of the European Union (TFEU) [2016] OJ C202/1, art. 167.1.

112 *But see supra* note 110, at 249 ("the 'culture-clause' is not on equal footing with the competency norms of securing the internal market (Articles 4 (2) (a) and 26 of TFEU).").

113 *See* UN Educational, Scientific and Cultural Organization (UNESCO), *UNESCO Universal Declaration on Cultural Diversity*, Nov. 2, 2001, available at: https://www.refworld.org/docid/435cbcd64.html (last visited Nov. 23, 2020).

114 *Id.* art. 1.

115 *Id*. art. 7-9 (setting forth that "particular attention must be paid to the diversity of the supply of creative work, to due recognition of the rights of authors and artists and to the specificity of cultural goods and services which, as vectors of identity, values and meaning, must not be treated as mere commodities or consumer goods.").

pattern exhibiting the "LV" monogram may label the user's social status as wealthy since the graphic design denotes a luxury brand. Of course, it is not to say that industrial designs give all people the same impression, but there is a common stereotype about people using a particular industrial design.

Influences of industrial designs also extend to the psychological effects as they can lead to conscious or unconscious consumer choices. For example, Apple purposely uses the red color design to denote some of its products named "(PRODUCT)RED."[116] Purchasing the specific line of product design means that you become part of the culture contributing to a good cause of raising awareness on HIV/AIDs.[117] The project reflects that the use of color design can convey a message to consumers about the product and thus serve as an expression affecting consumers' purchasing decisions. From the consumers' point of view, industrial designs are an influential aspect of life because they add curiosity values to everything in human life. Without industrial designs, mundane objects will be lifeless due to fewer varieties, and so will human emotions. Industrial designs subsequently become an integral part of human life.

The economic or cultural significance shares a common benefit with copyright and patent protection. Both intellectual property protection can encourage competition and enrich human experiences by utilizing resources to create works for the public to appreciate and businesses to earn revenues. Providing a winner-take-all reward, copyright and patent systems play a vital role in commercial success as an assurance of return on investment.[118] They also play the role of a peacekeeper to regulate intangible assets, preventing undue usurp of individual efforts.

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116 *See (APPLE)RED PRODUCTS*, https://www.red.org/products/apple/ (last visited May 1, 2021).

117 Raising over $220 million for the past 14 years, the sale of (PRODUCT)RED devices have been contributed toward the Global Fund's HIV/AIDS programs. Apple will also "redirect[s] 100 percent of eligible proceeds from (PRODUCT)RED purchases to the Global Fund's COVID-19 Response." *See This color makes a difference. Choose (RED). Save lives,* APPLE, https://www.apple.com/product-red/ (last visited May 1, 2021).

118 *See* Reichman, *Charting the Collapse of the Patent-Copyright Dichotomy*, *supra* note 4, at 475 (citing Edmund W. Kitch, *The Nature and Function of The Patent System*, 20 J.L. & ECON. 266 (1977)).

2.4 Overlapping Protection: the Interface between Industrial Designs and Copyright

The bedrock of the industrial design/copyright interface relates to overlapping protection between two distinct intellectual property rights. After the examination of the definition of industrial designs, the international legal framework, and the relevant justifications in the preceding sections, this section explores how different kinds of intellectual property interact with industrial designs, particularly how copyright and industrial designs are closely intertwined to provide background information for further discussions in chapters 3 and 4. The following sections investigate what constitutes overlapping protection and the causes and effects of overlapping protection related to industrial designs.

2.4.1 Defining Overlapping Protection

Industrial designs bring to light problems with overlapping protection more prominent than other intellectual property. As explained earlier, defining the term "design" is rather a daunting task giving rise to difficulties in determining the scope of rights and the protection under intellectual property law. The terms "overlap" and "cumulation" are interchangeably used in this dissertation to represent a situation where the subject-matter is eligible for more than one type of intellectual property.[119] Almost certainly, some industrial design has the controversial privilege of being protected under more than one intellectual property regime. Industrial designs can create a conundrum in a way that unbalances the interests of intellectual property rightsholders and the public at large, contradicting the very purpose of intellectual property protection.

Industrial designs indeed lie at the crossroads of intellectual property; overlapping protection may occur when industrial designs possess features eligible for more than one intellectual property protection. An industrial design may be protected under design rights, copyright, trademark, and unfair competition. Put simply, overlapping protection occurs in cases where there is more than one

[119] *See* ESTELLE DERCLAYE & MATTHIAS LEISTNER, INTELLECTUAL PROPERTY OVERLAPS: A EUROPEAN PERSPECTIVE 3 (2011) (pointing out the terminologies, which this dissertation agrees to follow).

intellectual property protection afforded to the same article; such overlaps may occur concurrently, or after one right has expired. These classifications are also known as simultaneous and *posteriori* overlaps, respectively.[120] In the EU, overlapping protection can be either vertical or horizontal since the Community Design legislation and the national design laws are implemented in all EU Member States. These design rights operate side by side, and thus, an overlap may occur in any aspect of industrial design protection. More importantly and central to this dissertation, approaches to the interface between industrial design and copyright protection are commonly classified into four main types: total cumulation, full cumulation, partial cumulation, and non-cumulation (demarcation),[121] as will be further discussed in chapter 4.

2.4.2 Causes of Overlapping Protection

Various factors contributing to overlapping protection encompass the nature of subject-matter, the statutory rules, such as a broad range of definitions, and the judicial stance on the issue. In the US, for instance, overlapping protection between design patents and copyright was probably an advertent occurrence orchestrated by Congress. The US courts also contribute to overlapping protection, making an allowance for certain subject-matter as they deem to pass the tests established judicially.[122] The interface between industrial design and copyright protection is prominent. When copyrightable works increasingly become commercially explored and industrial designs move toward being artistic pieces, the interface between the two intellectual property boundaries inevitably occurs.

The bedrock of overlapping complications is chiefly due to the nature of industrial designs eligible for protection under more than one intellectual property law. Consequently, industrial design rights are inextricably intertwined with other intellectual property rights. The term “industrial design” can be a vague terminology, and the subject-matter of what constitutes an industrial design appears to be broadened through the advancement in science and arts. Even in the era of less advanced

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120 *Id.* at 34.
121 *Id.* at 5-6.
122 *See infra* 3.3.3.2 (discussing the separability doctrine).

technologies, literature indicated that a cause of overlapping protection with copyright was the unclear definitions of the copyrightable subject-matter described in the non-exhaustive list under copyright law.[123] Aside from the unclear definition laid down in legislation, the characteristic of being the transitional subject-matter also contributes to overlapping protection. To illustrate this, the categories of copyrightable subject-matter encompass subject-matter protectable under design patents. In the case of trademark, the subject-matter protectable as a trademark now covers odors and holograms. There is case law in France and the Netherlands dealing with the issue of whether odors are copyrightable.[124] Consequently, the so-called hybrid nature of an industrial design gives rise to a blur of the delineation between intellectual property protection governed differently in each jurisdiction. A three-dimensional industrial design may receive industrial design and trademark protection since the three-dimensional shape qualifies as a three-dimensional trademark in many countries, provided the legal requirements are met. Making a distinction between industrial designs and other types of intellectual property is necessary to protect intellectual creations adequately under each regime.[125]

Another cause of overlapping protections is the expansion of the subject-matter protectable under intellectual property law.[126] In the literature on the subject-matter expansion, there is often a negative evaluation of the expansion and an advocate of preventing overlapping protection. Examples of the subject-matter expansion that cause overlapping protection are clothing, software, and Graphical User Interfaces (GUIs). The subject-matter expansion in the era of new technologies makes it even harder to prevent overlapping protection between intellectual property rights since industrial designs may bring about more issues of overlapping protection in prospect. Properly evaluated, new

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123 *See* Richard W. Pogue, *Borderland: Where Copyright and Design Patent Meet*, 52 MICH. L. REV. 33, 34 (1953) (citing 17 U.S.C. § 5 (Supp. V, 1952)).

124 *See* Kecofa BV v. Lancôme Parfums et Beauté et Cie SNC (Lancôme), HR June 16, 2006, NJ 2006 (holding that perfume was copyrightable under the Dutch Copyright law); *see also* CdC, Arrêt No.1006, June 13, 2006, Nejla X c. Soc. Haarmann & Reimer (holding that a perfume was not copyrightable under French copyright law).

125 Some coined the word "mental creations" that are legally protected as property to identify intellectual property; *see* J. GORDON HYLTON, DAVID L. CALLIES, DANEIAL R. MANDELKER & PAULA A. FRANZESE, PROPERTY LAW AND THE PUBLIC INTEREST: CASES AND MATERIALS 52 (3d ed. 2007).

126 *See, e.g.*, Andrew Beckerman-Rodau, *The Problem with Intellectual Property Rights: Subject Matter Expansion*, 13 YALE J.L. & TECH. 35 (2010) [hereinafter "Beckerman-Rodau, *The Problem with Intellectual Property Rights*"] (asserting that the expansion of the subject-matter causes a problem of overlapping protection).

technologies make it challenging to delineate the boundary of intellectual property, particularly industrial designs, which typically transcend the boundaries. A problematic situation causing an overlap may derive from the interpretation of statutory provisions regarding whether they apply to subject-matter newly originated in this era. For example, GUIs beg the question of which intellectual property rights apply to them and how to handle overlapping protection since GUIs are subject-matter protectable under design, copyright, patent, and trademark law.[127] In the technology field, industrial designs gain an increasingly important role in distinguishing technological products from other appliances containing the same technical functions. In such instances, overlapping protection is thus unavoidable because industrial designs are not solely for aesthetically pleasing purposes but also serve as identifiers of products, thereby involving trademarks.

Furthermore, the framework of copyright and design legislation causes overlapping protection concerning works of applied arts and industrial designs. The status of industrial designs under intellectual property law is unresolved in a number of ways; for a very long time, industrial designs have vacillated between different legal categories.[128] The close relationship between copyright and industrial designs can be traced back to the common characteristics of being artistic in nature. The artistic features embodied in or applied to tangible objects connect industrial designs with subject-matter protectable under copyright law. Afori noted that "a design is a creation of similar nature to artistic works in general, whose boundary lines are hard to draw."[129] Industrial designs, hence, overlap with copyrightable works of applied art due to the artistic features embodied in or applied to products. In contrast, the functional features may be protectable under patent law, encountering problems derived from the hybrid characteristics enabling them to enjoy the benefits from both regimes.

Nevertheless, certain industrial designs are excluded from copyright protection partly due to the failure to satisfy the standards of protectable artistic works: copyright protection generally

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127 *See, e.g.*, Rachel Stigler, *Ooey GUI: The Messy Protection of Graphical User Interfaces*, 12 NW. J. TECH. & INTELL. PROP. 40 (2014).

128 Stina Teilmann-Lock, *Industrial Property or Artistic Property? Design, Intellectual Property Law and the PH Lamp*, 30 J. DES. HIST. 408 (2017).

129 *See* Orit Fischman Afori, *Reconceptualizing Property in Designs*, 25 CARDOZO ARTS & ENT. L.J. 1105, 1107 (2008) [hereinafter "Afori, *Reconceptualizing Property in Designs*"].

discriminates against three-dimensional industrial designs that do not qualify for the artistic requirement. There is a possibility that an industrial design is not regarded as an artistic work by the generalized perception; in such a case, an assessment of its artistic feature may be necessary to ascertain whether an industrial design qualifies as an artistic work protectable under copyright law. Such a threshold standard stems from the notion against the non-artistic nature of industrial designs, which concerns industrial applications having utilitarian proposes. Each jurisdiction adopted a different standard to determine whether industrial designs should be eligible for copyright protection. Some countries, such as Germany and Portugal, adopted the assessment of artistic quality for copyright in industrial designs.[130] The US copyright law restricts copyright protection for industrial designs, protecting only pictorial, graphic, and sculptural works for their ornamental features that "can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the article."[131]

In Thailand, a cause of overlapping protection between design patent protection and copyright protection stems from the statutory classification of artistic works: the Thai Copyright Act established a category of "works of applied art." Industrial designs, thus, may qualify for design patent and copyright protection concurrently. The aesthetic appearance of an industrial design may be considered as an artistic work protectable under copyright law, while it also qualifies as "design" eligible for design patent protection. The statutory definitions and the threshold standards for the protection under copyright and patent laws cause overlaps, reflecting some problems of the Thai industrial design protection regimes, as will be discussed in chapter 4.[132]

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130 *See infra* 3.1.3.1 and 3.1.3.3 (providing details about the case of Germany and Portugal, respectively).

131 17 U.S.C. § 101 (2012); *see also infra* 3.3.3.1 (providing details about the copyrightability of industrial designs in the US).

132 *See infra* 4.2 (discussing in detail the interface between design patents and copyright for industrial design protection in Thailand).

2.4.3 Effects of Overlapping Protection

Overlapping protection has both positive and negative effects on industrial design protection. It is common in the literature to find that overlapping protection or cumulative protection results in the overprotection and under-protection of industrial designs in different jurisdictions. Interestingly, the literature indicates that under-protection and overprotection may be considered normal in the well-developed intellectual property system, as Reichman notes:

> Although the cyclical movement from under-protection to overprotection and back to under-protection once again tends to occur at different velocities in different legal environments, comparative analysis shows it to be a recurring behavioral characteristic of most developed intellectual property systems.[133]

Despite the observation, the literature demonstrates that several countries had historically struggled to handle the seemingly normal occurrence of the design/copyright interface. The inclination to adopt full cumulation can be perceived as another attempt to end the recurring perplexities and the propensity to afford copyright protection to more industrial designs. Even though there is a global tendency toward expanding intellectual property rights, it should still be under scrutiny as to whether it is the right trend for countries whose intellectual property systems are comparatively less developed.

While innovation is an excellent component for successful developments, the more important question is the extent to which one country should design and implement a system most suitable for its needs at a certain point in time. The inappropriate level of intellectual property protection may be detrimental to technical and cultural developments in developing countries since it can create an environment hostile to innovation. In contrast, under-protection left unregulated does not support incentivizing technological and artistic creations that industrial designs can offer to society.

The notably problematic scenario caused by overlapping protection is that the broader scope of protection may restrict freedom of competition since it can prolong the term of the exclusivity granted to industrial designs. The prolonged period of protection restricts the freedom to exploit industrial designs in the public domain and can unduly affect the fair competition related to them.

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[133] *See* Reichman, *Design Protection and the New Technologies, supra* note 7, at 127.

There is a notion that cumulative protection may upset the balance between the interests of the industrial design proprietors and those of the public. Improperly regulated, cumulative protection leads to overprotection of industrial designs. Arguably, an overlap is open to circumvention of intellectual property law for the exploitation of the maximum benefits, which can be detrimental to the public sphere. By contrast, it is possible for the opposite side of the rightsholders to circumvent exceptions provided under one law by relying on another law and by reaping the rewards from the users unfairly.

Another disadvantage is the uncertain scope of intellectual property rights resulting from the blurred boundaries of intellectual property protection. The subject-matter expansion poses difficulties for defining the scope of rights under each intellectual property law. Copyright, for instance, protects expressions of ideas, not ideas,[134] but delineating the protectable subject-matter is prone to be a contentious issue. The unpredictable scope of protection has a detrimental effect on the advancement of intellectual property since it is unclear as to whether a certain action runs afoul of anyone's intellectual property.[135] Even though overlapping protection still occurs, notwithstanding the clear distinction between intellectual property rights, the more obscure boundaries of copyright, patent, and trademark protection have resulted, to some extent, from the expansion of protectable subject-matter.[136] These loose boundaries subsequently lead to overprotection because cumulative protection permits simultaneous protection of several intellectual property rights for the same subject-matter.[137] Such overlapping protection, hence, negatively affects "the carefully developed doctrines that have evolved over time to balance the private property rights in intellectual creations against public access to such creations."[138]

Despite the obvious concerns, cumulative protection or overlapping protection appears not to be of grave concern at the international level. International agreements show merely some correlation

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134 *See, e.g.*, Mazer v. Stein, 347 U.S. 201 (1954) (holding that "[u]nlike a patent, a copyright gives no exclusive right to the art disclosed; protection is given only to the expression of the idea—not the idea itself.").

135 Mark A. Lemley, *Property, Intellectual Property, and Free Riding*, 83 TEX. L. REV. 1031 (2005) [hereinafter "Lemley, *Property, Intellectual Property, and Free Riding*"].

136 Beckerman-Rodau, *The Problem with Intellectual Property Rights*, *supra* note 126 at 36.

137 *Id.*

138 *Id*.

between works of applied art and industrial designs at the surface by mentioning them together. The Berne Convention provides a closer relationship by instigating the protection of industrial designs as works of applied art under copyright law when sui generis design law is absent in Member countries.[139] In general, an overlap with copyright will not occur in industrial designs that are entirely technical, but it is possible to occur in non-functional features. However, in the case of Thailand, the Thai Patent Act does not explicitly provide for the functionality exclusion precluding the protection of functional features. It is, therefore, possible for industrial designs to be patentable and overlap with copyright protection in the category of works of applied art, as will be discussed in chapter 4.[140]

[139] *See* Berne Convention, *supra* note 24, art. 2(7).
[140] *See infra* 4.2 (discussing the interface between design patent and copyright protection in Thailand).

CHAPTER 3

Foreign Experiences: Industrial Design Protection in the EU, UK, and US

As examined in chapter 2, the international legal frameworks related to industrial design protection allow Member countries to establish means for industrial design protection under sui generis design, copyright, or other laws. Therefore, it is not surprising to discover that the national legal frameworks related to industrial design protection vary across the globe. In principle, there are two main legal mechanisms for the protection of industrial designs, which are design (*sui generis*) and patent laws. Japan and the EU implement sui generis design legislation in addition to copyright, trademark, patent, and unfair competition laws,[141] whereas the US and Thailand protect industrial designs under patent law.[142] The likelihood of protection for industrial designs differs in response to areas in which the designs are categorized. This is, of course, aside from the legislative frameworks in each jurisdiction. Whichever form of protection, industrial designs seemingly either receive under-protection or overprotection in different jurisdictions. Such a situation leads to a paradoxical situation where there is a need to maintain the proper level of protection in connection with the public interests and those of the rightsholders.

This chapter explores the national (including regional) legal frameworks of industrial design protection in selected jurisdictions, which are the EU, UK, and US. It should be mentioned that this chapter does not elaborate on (almost) all the issues about the laws of the selected jurisdictions but will limit its scope of explanation of the issues relevant to the thesis question. The first section of this chapter begins with the EU experience in industrial design protection.

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[141] Japan protects registered designs under Ishō-hō [Design Act] Act No. 125 of Apr. 13, 1959, as last amended by Act No. 2021-42 of May 21, 2021; the EU protects designs under the Design Directive and Design Regulation.

[142] The US design patent law is 35 USC Chapter 16 (§§ 171-173). Thailand has a subcategory of design patent protection in §§ 56-65 of the Patent Act 1979, last amended in 1999.

3.1 The EU Experience

The EU is one of the prominent leaders in the world with reference to industrial design protection, attaching significance to industrial design protection as a vital supplement to the EU objectives – the free movement of goods and the smooth functioning of the internal market, for instance. The lengthy development of the art history in EU Member States also contributes to the significance of protecting artistic and cultural expressions embodied in or applied to objects. For instance, France, Germany, Italy, and Scandinavian countries earned high praise for the visual aesthetics of industrial designs.[143] Throughout the years, industrial designs signify such value through industrial artworks and mundane objects, playing a crucial role in the EU economic prosperity. This section discusses the protection of industrial designs in the EU by examining the historical development of the legislative background leading to the Design Directive and Design Regulation and exploring some landmark cases related to the interface between industrial design and copyright protection.

3.1.1 Historical Background in Brief: The Origin of the Design Directive and Design Regulation

Prior to the launch of the EU sui generis design protection regime in 1998, there were research studies related to industrial design protection in the EU, such as the document called the Green Paper and the Max Planck Institute's proposal, which will later be explored in this section.[144] Before the harmonization of design protection regimes across the EU, Member States utilized different means to protect industrial designs. From 1950 to 1975, many EU Member States, except Belgium and the Netherlands, protected industrial designs under specific design legislation. In comparison, industrial

[143] *See generally* Christopher G.A. Yate Johnson, *Industrial Designs and Trade Marks: Their History, Development, and Protection*, 11 ASLIB PROC. 127 (1959) (discussing the need for good designs and the protection of industrial designs).

[144] Prior to the Green Paper, there were the White Paper on the accomplishment of the internal market and the Green Paper on copyright and the challenge of technology, neither of which addressed the legal protection of industrial designs.

designs were protected under copyright law in Belgium and unfair competition law in the Netherlands before establishing their design legislation in 1975.[145] The following sections deal with the legislative developments of the industrial design protection regime in the EU.

In 1959, the European Economic Community formed a working group on industrial designs along with working groups on patents and trademarks.[146] Having conducted a comprehensive study, Signor Roscioni, the working group leader on industrial designs, contended that "national legislative differences in the legal protection of designs were so extensive that any attempt at harmonization would be hopeless."[147] Despite the low expectation for harmonization, Roscioni suggested the possibility of establishing a supra-national design right alongside the national design protection.[148] Corresponding to the 1962 report,[149] a proposal for the EU-wide design legislation did not make further progress.[150] Changes in the field of design protection occurred merely at the national level.

In 1968, the UK promulgated the Design Copyright Act 1968,[151] and later in 1988, the Copyright, Designs, and Patents Act 1988 was passed.[152] In 1975, Belgium, the Netherlands, and Luxembourg established a registered design protection regime under *Convention Benelux en matière de propriété intellectuelle* (*marques et dessins ou modeles*) [hereinafter the "Uniform Benelux Design Law"].[153] In 1986, Germany altered its intellectual property law after a survey conducted by the Max Planck Institute for Foreign and International Patent, Copyright, and Competition Law in 1972 [hereinafter the "1972 survey"]. The 1972 survey proposed several interesting points, namely a limited

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145 *See* Uniform Benelux Design Law, *annexed to* the Benelux Designs Convention, *signed* at Brussels on Oct. 25, 1966, *effective* Jan. 1, 1975.

146 The European Economic Community was renamed the European Community (EC) in 1993, and to EU in 2009; s*ee also* STONE, EU DESIGN LAW, *supra* note 36, at 1.

147 *Id.* at 2.

148 *Id*.

149 *See* Roscini Working Party Report on Industrial Designs, 2143/IV/62 of 17 December 1962.

150 Numerous attempts for the harmonization of EU design legislation failed to reach an effectively concluding result; s*ee* Maria Helena Barrera, *Design Law: Protecting Paradox* (2016) at 2; David Stone, *Ten Years of EU design law*, WIPO MAGAZINE, 2013, at 1-5.

151 An Act to amend the law relating to the copyright of the design of certain manufactured articles, and for connected purposes, 1968, Eliz. 2, c. 68 [hereinafter the "Design Copyright Act 1968"].

152 *See* CDPA 1988, *supra* note 34, § 216(1).

153 The Uniform Benelux Design Law entered into force on Jan. 1, 1975, and the current version entered into force on Oct. 1, 2013.

timeframe for invalidation and two approaches for the protection of different designs.[154] The first idea, which mirrored provisions in the Green Paper, suggested the need to limit the duration for which prior designs can be considered for the novelty-destroying factor and the individual character requirement. Interestingly, the Uniform Benelux Design Law contained a similar limitation clause confining the search of prior designs to fifty years.[155]

During the 1980s, there were three critical cases in which the Court of Justice of the European Communities (CJEC)[156] rendered different verdicts indicating the possibility of contradictory results that were likely to segment the internal market due to the lack of legislative harmonization.[157] These verdicts indicated the possibilities of disrupting the well-functioning of the internal market and substantiated the significance of harmonization of industrial design protection in the EU.

By 1990, there were concrete developments in the harmonization of trademarks and patents, but not for industrial designs. A draft of a legal instrument for Community trade mark was published in 1988, and twelve countries signed an agreement on Community patents in 1989.[158] Despite the harmonization lagging behind for industrial design, there was a series of events aimed to present ways in which the European design protection could be improved. For example, in 1990, there was a symposium on design protection having participants from WIPO, the Commission, and representatives of Member States.[159]

A major step toward the harmonization of industrial design protection was the publication of the two critical documents, which were the proposal of the Max Planck Institute on a model design

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154 *See* STONE, EU DESIGN LAW, *supra* note 36, at 2 (citing William T Fryer, *Design users suggest national law changes, EC approach and harmonisation strategy: Federal Republic of Germany surveys on design protection*, 12 E.I.P.R. 360 (1990)).

155 *See id.*, at 183 (citing art. 4(1)(a) of the Uniform Benelux Design Law).

156 On December 1, 2009, the Treaty of Lisbon entered into force and the Court of Justice of the European Communities was renamed the Court of Justice of the European Union [hereinafter the "CJEU"].

157 These cases were: Case C-144/81, Keurkoop BV v. Nancy Kean Gifts BV, ECLI:EU:C:1982:289 (holding that the rightsholder of the design acquired under a Member State's law could prevent the unauthorized importation of products infringing the national design rights); Case C-53/87, Consorzio Italiano della Componentistica di Ricambio per Autoveicoli and Maxicar v. Régie nationale des usines Renault, ECLI:EU:C:1988:472 (reiterating the holding in Keurkoop BV v. Nancy Kean Gifts); and Case C-238/87, AB Volvo v. Erik Veng (UK) Ltd., ECLI:EU:C:1988:477.

158 STONE, EU DESIGN LAW, *supra* note 36, at 4.

159 *Id.* at 5.

law [hereinafter the "Max Planck Proposal"],[160] and the 1991 European Commission's Green Paper on the protection of industrial design [hereinafter the "Green Paper"].[161] The Max Planck Proposal "was based on the 1988 Commission draft Council Regulation on the Community trade mark"[162] and also "borrowed language from the European Patent Convention and the Community Patent Convention."[163] Following the Max Planck Proposal, the Commission issued the Green Paper in June 1991, [164] which was clearly influenced by the Max Planck Proposal.[165] The economic justifications of industrial design protection are recognized in the opening paragraph of the Green Paper, which states:

> In recent years, the legal protection of industrial design has become an increasingly important issue. Design products now occupy an important place in the economy. At the national level design protection has existed since the start of industrialization but national legislation in general falls short of the needs of industry in at least two aspects. First its legal effect is limited to the territory of a single member state (except for the Benelux countries which have introduced a regional protection system); secondly, it protects only insufficiently the salient features of contemporary industrial design, which is the enhanced functionality of a product by way of its design. It is often limited to the protection of the ornamentation of a product.[166]

Both documents largely influenced the enactment of the Design Directive and Design Regulation.[167] Many provisions proposed in the Green Paper and Max Planck Proposal were similar,[168] emphasizing the harmonization and a unitary system aiming to improve industrial design protection and facilitate the functioning of the EU internal market. For example, both documents proposed the

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160 Max Planck Institute for Foreign and International Patents, Copyright and Competition law, *Towards a European Design Law* (Aug. 1, 1990) [hereinafter the "Max Planck Proposal"]. Members of the working group on the Max Planck Proposal included Dr. Annette Kur, Professor Friedrich-Karl Beier, Dr. Kurt Haertel, and Dr. Marianne Levin; *see* Riichi Ushiki, *Legal Protection of Industrial Designs* 46 (2001), at 20.

161 European Commission, *Green Paper on the Legal Protection of Industrial Design*, 111/F/5131/91-EN (Brussels, June 1991) [hereinafter the "Green Paper"].

162 Draft for a Council Regulation on the Community trade mark, Document 5865/88, May 11, 1988 (cited in STONE, EU DESIGN LAW, *supra* note 36, at 5).

163 STONE, EU DESIGN LAW, *supra* note 36, at 5.

164 *Id*. at 6.

165 Audrey A. Horton, *Industrial Design Law: The Future For Europe*, 13 E.I.P.R. 442 (1991) [hereinafter "Horton, *Industrial Design Law*"].

166 *Id*.

167 *See* Herman Cohen Jehoram, *Cumulation of Protection in the EC Design Proposals* (1994); Estelle Derclaye, *EU Design Law: Transitioning Towards Coherence? Fifteen Years of National Case Law*, *in* TRANSITION AND COHERENCE IN INTELLECTUAL PROPERTY LAW: ESSAYS IN HONOUR OF ANNETTE KUR 56 (Niklas Bruun et al. eds., 2019).

168 Horton, *Industrial design Law*, *supra* note 165 (discussing the Green Paper and the Max Planck Proposal in detail).

establishment of a two-tier protection regime at the Community level alongside the national level,[169] offering unregistered and registered Community design protection.[170] Other similarities include the eligibility requirements,[171] the overall impression test, the definition of eligible design, the functionality exclusion, and requirements for establishing infringement of design rights. Possibly the most interesting similarity concerns the eligibility requirements, in which both documents proposed a two-pronged test for the assessment of distinctive character.[172] According to the test, 1) a design must not be identical or substantially similar to already available designs in the eyes of a circle specialized in the field, and 2) a design must differentiate from already known designs in the eyes of ordinary consumers. In addition, both documents proposed the twelve months grace period from the first disclosure to the public during which any disclosure of designs does not destroy the novelty and distinctive character requirements.[173] There was also no difference regarding the protection period of registered design rights, which lasted for a maximum of twenty-five years from the date of filing. On the other hand, a difference existed in the term of informal protection (unregistered design protection) – the Green Paper proposed a tentative period of three years from the date of the first disclosure to the public, while the Max Planck Proposal provided for two-year protection.

Many provisions proposed in the Max Planck Proposal and the Green Paper were enacted in the Design Regulation.[174] Examples are as follows: a maximum of twenty-five-year period of protection for a registered design, unregistered design protection (the three-year term proposed in the Green Paper was adopted),[175] the protection requirements of "new" and "distinctiveness," the twelve-

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169 *See* the Green Paper, *supra* note 161, art. 5 and the Max Planck Proposal, *supra* note 160, art. 8 (offering registered design protection lasting for a maximum of 25 years).

170 Both documents proposed the "informal design" protection later adopted as unregistered design protection in the Design Directive and Design Regulation; Green Paper, *supra note* 161, art. 9(1).

171 *See* the Green Paper, *supra* note 161, art. 5 and the Max Planck Proposal, *supra* note 160, art. 5–7 (proposing the eligibility requirement of distinctive character); *see* also Horton, *Industrial design Law*, *supra* note 165 (describing that the Max Planck Proposal even required the design to have the market impact on a product in order to pass the distinctive character standard).

172 *See* Horton, *Industrial Design Law*, *supra* note 165 at 444.

173 A key proposal of the grace period is for design owners to test the market before filing an application for registration; *see also* Design Regulation, *supra* note 39, rec. 20 (affirming the necessity for allowing designers "to test the products embodying the design in the marketplace before deciding whether the protection resulting from a registered Community design is desirable.").

174 *See* STONE, EU DESIGN LAW, *supra* note 36, at 6–7.

175 *Id*. (noting that the unregistered protection was aimed to test the commercial value of designs in the market).

month grace period, the exclusion precluding a design that is against public order or morality, and the functionality exclusion which precludes a design solely dictated by its technical function. On the contrary, some aspects proposed in both documents failed to be enacted in the Design Directive and Design Regulation. An example of the rejected proposals involved a mechanism in which a registered Community design, once granted, would invalidate the national registered and unregistered Community designs from the date of published registration.[176] Moreover, the concept of the postponement period of twelve months proposed to protect the development phase of industrial designs was also not adopted in the Design Directive and Design Regulation.[177]

In 1993, the Commission finalized the draft proposals:[178] 1) a Proposal for a European Parliament and Council Directive on the legal protection of designs,[179] and 2) a Proposal for a European Parliament and Council Regulation on the Community Design.[180] The draft proposals, which closely resemble the Green Paper,[181] became the actual texts of the Design Directive and Design Regulation.[182] In 1995, the Economic and Social Committee delivered an Additional Opinion that expressed an objection against the worldwide novelty and therefore proposed a "safeguard" clause to exclude designs from the assessment of protection requirements.[183] The Commission also supported the introduction of the "repair clause" as proposed. There were debates, for instance, on the legislative basis and the spare parts issue, which caused a delay in adopting the Design Directive and Design Regulation.[184] On October 13, 1998, the European Parliament and the Council adopted the Design

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176 The Green Paper, *supra* note 161, art. 96(1) and 9(2), respectively.
177 *See id.* art. 46; the Max Planck Proposal, *supra* note 160, art. 51.
178 *See* STONE, EU DESIGN LAW, *supra* note 36, at 6 n.42–43.
179 Proposal for a European Parliament and Council Directive on the Legal Protection of Designs, Com (93) 344 final-COD 464, Brussels, Dec. 3, 1993, O.J. EC No. C 345/14 of Dec. 23, 1993.
180 Proposal for a European Parliament and Council Regulation on the Community Design, Com (93) 342 final-COD 463, Brussels, 3 Dec. 1993, O.J. EC No. C 29/20 of Jan. 31, 1994.
181 STONE, EU DESIGN LAW, *supra* note 36, at 9.
182 *See* SUTHERSANEN, DESIGN LAW IN EUROPE, *supra* note 68, at 24 n.9 (providing details about the amendments).
183 *See* Design Regulation, *supra* note 40, art. 7 ("… except where these events could not reasonably have become known in the normal course of business to the circles specialised in the sector concerned, operating within the Community.").
184 *See* STONE, EU DESIGN LAW, *supra* note 36, at 10–14 (discussing further about the debates).

Directive,[185] whereas the Design Regulation was later adopted in 2001 and became effective on March 6, 2002.[186]

3.1.2 The Current EU Legal Framework related to Industrial Design Protection: The Design Directive and Design Regulation

3.1.2.1 Introduction

The EU revolutionized design protection in the region through the Design Directive harmonizing national design laws of EU Member States and the Design Regulation establishing a unitary design right. There are two chief reasons for the design protection regime in the EU. First, harmonizing the national design laws of EU Member States was crucial in advocating the free movement of goods.[187] This notion considers that diverse national legislation related to design protection can disrupt the peaceful operation of the EU internal market.[188] Second, the harmonization of design protection will ensure effective protection and help prevent conflicting judgments of the CJEU, which could jeopardize the EU economic objectives.[189] The unitary system will also support the well-functioning of the Community design protection and "further the objectives of the Community."[190] The Community design courts are national courts designated by EU Member States to hear the case related to the Design Regulation.[191] The CJEU has jurisdiction over the appeals against

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185 Design Directive *supra* note 39.
186 Design Regulation, *supra* note 40.
187 *See* Design Directive, *supra* note 39, rec. 1 (describing the significance of harmonized design legislation of EU Member States to foster objectives of the EU).
188 *See* art. 26 of the Treaty on the Functioning of the European Union (TFEU) (describing an objective to ensure the functioning of the internal market and the free movement of goods without internal frontiers); *see also* Design Directive, *supra* note 39; rec. 2 (stating "[w]hereas the differences in the legal protection of designs offered by the legislation of the Member States directly affect the establishment and functioning of the internal market as regards goods embodying designs; whereas such differences can distort competition within the internal market.").
189 *See supra* note 157 (describing three cases in which the CJEU applied different national laws in deciding the case related to design protection).
190 Design Regulation, *supra* note 40, rec. 1.
191 *See* Design Regulation, *supra* note 40, arts. 80, 81 (stipulating the jurisdiction of Community design courts).

the decisions of the Board of Appeal[192] and the Design Directive's interpretation referred by the national courts, as will be later discussed in 3.1.3.2, 3.1.3.3, and 3.1.3.4.

The Design Directive is a supranational law exemplifying the EU legal structure, serving as an essential tool to harmonize the national design laws of EU Member States.[193] Accordingly, EU Member States were obliged to implement the Design Directive's provisions in their national legislation by the deadline of October 28, 2001.[194] The Design Directive, thus, facilitates and enhances design protection through the harmonization of registered design protection in EU Member States,[195] while unregistered design protection remains the individual autonomy of EU Member States.[196] On the other hand, the Design Regulation aims to unify design protection with its direct legal effects in all EU Member States, establishing uniform Community-wide design rights.[197] The term "Community design" refers to "[a] design which complies with the conditions contained" in the Design Regulation.[198] Under the Community design protection regime established by the Design Regulation, a two-tier protection regime provides unitary design rights in EU Member States: unregistered Community design rights and registered Community design rights.[199] Design owners can obtain a short period protection for their designs without registration, and if they desire, they can register their designs for longer and stronger protection effective throughout the EU. As a result, the Community

192 *Id*. art. 61 (1).
193 *See, e.g.*, Design Directive, *supra* note 39, rec. 9 ("Whereas the attainment of the objectives of the internal market requires that the conditions for obtaining a registered design right be identical in all the Member States; whereas to that end it is necessary to give a unitary definition of the notion of design and of the requirements as to novelty and individual character with which registered design rights must comply.").
194 *See*, Design Directive, *supra* note 39, art. 19 (1).
195 *See, e.g.*, Design Directive, *supra* note 39, rec. 17 ("Whereas it is fundamental for the smooth functioning of the internal market to unify the term of protection afforded by registered design rights.").
196 *See* Design Regulation, *supra* note 40, rec. 17 and art. 11 (providing that there must have two forms of protection, "one being a short-term unregistered design and the other being a longer term registered design.").
197 *Id.* rec. 1.
198 Design Regulation, *supra* note 40, art. 1 (1).
199 *Id.* art. 2.

design protection regime can fulfill the desire to seek a cheaper and more convenient alternative than patent protection and immediately protect designs with short life cycles.[200]

3.1.2.2 Requirements for protection

In essence, there are two levels of protection available in EU Member States, national design rights and Community design rights. To obtain Community design rights, an industrial design must satisfy the following requirements:

1) An industrial design eligible for protection must be "the appearance of the whole or a part of a product resulting from the features of, in particular, the lines, contours, colours, shape, texture and/or materials of the product itself and/or its ornamentation."[201]
2) An industrial design must be new[202] and have individual character.[203]

(i) Protectable subject-matter

First, an industrial design must satisfy the legal definition of "design," meaning that the Community design rights afford protection, wholly or partially, to the external appearances of products irrespective of their characteristics.[204] The appearances included in the legal definition are colors, lines, contours, textures, materials, or shapes of designs and/or products. Other features may also be eligible for protection since the term "in particular" used in the provision indicates that the features listed are not exhaustive. The Community design rights protect appearances that must be visible in "physical form"[205] or relevant to the "sense of sight."[206] The design rights do not subsist in ideas,

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200 *See* STONE, EU DESIGN LAW, *supra* note 36, at 2 (citing the survey conducted by the Max Planck Institution for Foreign and International Patent, Copyright and Competition Law). Provisions related the unregistered Community design protection became effective on Mar. 6, 2002.

201 *See* Design Regulation, *supra* note 40, art. 3 (defining the legal definition of "design" eligible for protection under the Community design rights).

202 *See id.* art. 5.

203 *See id.* art. 6.

204 *See supra* 2.1.1 & 2.1.2 (examining general and legal definitions of industrial designs in different jurisdictions).

205 STONE, EU DESIGN LAW, *supra* note 36, at 49.

206 *Id*. at 49 n.15; *see also id*. at 52 (noting that the Green Paper also proposed the sense of touch for 'texture,' but it failed to be adopted in the Design Regulation).

design concepts, or methods.[207] The Max Planck Proposal suggested that the appearances are "capable of having an effect on the human senses of form and/or colour."[208] The Green Paper provided that the appearances are capable of being perceived by the human senses as regards form and/or colour."[209] There is also a reference to the sense of sight in the Design Regulation, recital 14, which mentions the term "viewing" of an informed user in the assessment of individual character.[210] As a consequence, the European definition of protectable designs is exceptionally broad, encompassing "all aspects of the appearance of a product or part of a product."[211] The visibility is not expressly confined to the naked eye; therefore, a design perceivable by a microscope may be eligible for protection.[212] The statutory definition also does not restrict the protected appearances to merely at the time of purchase; graphic symbols that later appear on a computer screen are, hence, covered under the definition.[213] In addition to the "appearances," the term "product" is of equal importance. Article 3(b) states:

> 'product' means any industrial or handicraft item, including inter alia parts intended to be assembled into a complex product, packaging, get-up, graphic symbols and typographic typefaces, but excluding computer programs.

The definition of "product" is broad and inexhaustive since it encompasses any industrial or handicraft item and other kinds of articles, further extending the scope of a "product" in which a "design" is incorporated. Packaging means "the container or material that a product is sold in."[214] Get-up generally means "aspects of distinctive appearance of the way in which a product is sold, or a service delivered,"[215] Graphic symbols and typographic typefaces are expressly covered to offer protection to them under the Community designs. Graphic symbols refer to "a written symbol that is

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[207] *Id*. at 49 n.12-14.
[208] The Max Planck Proposal, *supra* note 160, art. 4
[209] Green Paper, *supra* note 161, art. 3.
[210] Design Regulation, *supra* note 40, rec. 14 ("The assessment as to whether a design has individual character should be based on whether the overall impression produced on an informed user viewing the design clearly differs from that produced on him by the existing design corpus…."); *see* STONE, EU DESIGN LAW, *supra* note 36, at 50.
[211] STONE, EU DESIGN LAW, *supra* note 36, at 50.
[212] UMA SUTHERSANEN, DESIGN LAW: EUROPEAN UNION AND UNITED STATES OF AMERICA 95 (2010) [hereinafter SUTHERSANEN, DESIGN LAW], (cited in STONE, EU DESIGN LAW, *supra* note 36, at 54.)
[213] *Id*. at 57; *see, e.g.*, Thomas Dubuisson, *IP protection for graphical user interfaces in the EU, US and China*, 10 J. INTELL. PROP. L. & PRAC. 767 (2015).
[214] *Packaging*, Longman Dictionary (5th ed. 2009).
[215] STONE, EU DESIGN LAW, *supra* note 36, at 61.

used to represent speech."[216] Typographic typefaces essentially refer to how letters and characters are arranged in ways that are, for instance, artistically pleasing or legible.[217] The only exclusion that appeared in the provision concerns computer programs since they are subject to the copyright regime.[218] Nevertheless, the appearance of the whole or a part of a product protected by the Community designs only extends to the component parts that are visible during normal use of a product.[219] The wording "a part of a product" does not refer to the component parts of a complex product which concerns the spare parts issue.

(ii) Requirements for protection

Second, having passed the "design" definition criterion, an industrial design must satisfy another two requirements of being new and having individual character.[220] The novelty and individual character criteria are two separate requirements; hence, the assessment of the novelty criterion is different from that of the individual character criterion. Under the Design Regulation, a design is new when there is no identical design available to the public before the date on which the design is first made available to the public in the case of an unregistered Community design,[221] and the date of filing an application for registration or the date of priority if claimed in the case of a registered Community design.[222] What is considered as having been made available to the public is an open question, but an industrial design disclosed in a foreign language document and misplaced in irrelevant sections at the

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[216] *Definitions of graphic symbol*, DEFINITIONS, https://www.definitions.net/definition/graphic+symbol (last visited May 3, 2021).

[217] *See generally*, Warren E. Preece, *Typography*, ENCYCLOPEDIA BRITANNICA, https://www.britannica.com/technology/typography (last visited May 3, 2021).

[218] *See id.* at 67 (citing Green Paper and Council Directive (EC) 91/250 of May 14, 1991, on the legal protection of computer programs [1991] OJ L122/42).

[219] *See* Design Regulation, *supra* note 40, art. 4 (2) ("A design applied to or incorporated in a product which constitutes a component part of a complex product shall only be considered to be new and to have individual character: (a) if the component part, once it has been incorporated into the complex product, remains visible during normal use of the latter; and (b) to the extent that those visible features of the component part fulfil in themselves the requirements as to novelty and individual character."); *see also* art. 4(3) (noting that the normal use is defined as meaning "use by the end user, excluding maintenance, servicing or repair work.").

[220] *Id*. art. 4(1).

[221] *Id.* arts. 1(2)(a), 5(1)(a).

[222] *See* Design Directive, *supra* note 39, art. 4; Design Regulation, *supra* note 40, arts. 5(1), 7(1).

public library would still be regarded as having been made available to the public.[223] The "disclosure" is further elaborated in the Design Regulation, which provides that "a design shall be deemed to have been made available to the public if it has been published following registration or otherwise, or exhibited, used in trade or otherwise disclosed, before the date referred to…."[224] By contrast, a design is not "deemed to have been made available to the public for the sole reason that it has been disclosed to a third person under explicit or implicit conditions of confidentiality"[225] in cases "where these events could not reasonably have become known in the normal course of business to the circles specialised in the sector concerned, operating within the Community."[226]

Moreover, it is not considered a disclosure for the purposes of novelty and individual character requirements when the disclosure has been made available to the public:

1) by the design his successor in title, or a third person as a result of information provided or action taken by the designer or his successor in title;[227]
2) during the 12-month period preceding the date of filing of the application or, if a priority is claimed, the date of priority;[228] or
3) as a consequence of an abuse in relation to the designer or his successor in title.[229]

Article 5(2) of the Design Regulation also provides that "[d]esigns shall be deemed to be identical if their features differ only in immaterial details.[230] According to the provision, the definition of "identical" means "close, but not exact."[231] Hence, designs are not identical if they differ not only in immaterial details. A different color of the same appearance, for instance, does not make designs different in more than immaterial details.[232]

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223 *See, e.g.*, Green Lane Products Ltd. v. PMS International Group, [2008] EWCA (Civ) 358, [27] (Eng.) (noting that "a disclosure in a document written in Sanskrit and misplaced in the children's section of Alice Springs public library is one which is made available to the public").
224 Design Regulation, *supra* note 40, art. 7(1).
225 *Id.*
226 *Id.; see supra* 3.1.1 (providing details about the origin of the safeguard clause).
227 Design Regulation, *supra* note 40, art. 7(2)(a).
228 *Id.* art. 7(2)(b).
229 *Id*. art. 7(3).
230 *Id*. art. 5(2).
231 STONE, EU DESIGN LAW, *supra* note 36, at 194.
232 This interpretation came from a decision of the Board of Appeal, which found that the registered Community design of coffee maker (R 216/2005-3) was identical to the earlier registered trade mark because the differences in the color and logo were immaterial.

In addition to the novelty requirement, the individual character is a requirement for Community design protection.[233] Contrary to the national laws of some EU Member States, there is no requirement of any aesthetic quality or creativity as a prerequisite to the protection.[234] Article 6 (1) of the Design Regulation prescribes the requirement of individual character:[235]

> 1. A design shall be considered to have individual character if the overall impression it produces on the informed user differs from the overall impression produced on such a user by any design which has been made available to the public:
> (a) in the case of an unregistered Community design, before the date on which the design for which protection is claimed has first been made available to the public;
> (b) in the case of a registered Community design, before the date of filing the application for registration or, if a priority is claimed, the date of priority.

The individual character requirement means that a design must produce a different overall impression on an informed user when compared with the overall impression produced by the earlier designs. The assessment of individual character is conducted at the filing date or the priority date in the case of registered Community designs and at the date on which design is first made available to the EU in the case of unregistered Community designs. The explanation of individual character requires further understandings of an informed user.

There are one recital and two provisions mentioning the term "informed user:" Recital 14, Article 6, and Article 10 of the Design Regulation.

Recital 14 states:

> The assessment as to whether a design has individual character should be based on whether the overall impression produced on an informed user viewing the design clearly differs from that produced on him by the existing design corpus, taking into consideration the nature of the product to which the design is applied or in which it is incorporated, and in particular the industrial sector to which it belongs and the degree of freedom of the designer in developing the design.

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233 Design Regulation, *supra* note 40, art. 4.

234 *See* Design Regulation, rec. 10 ("It is understood that this does not entail that a design must have an aesthetic quality."); *see also* STONE, EU DESIGN LAW, *supra* note 36, at 53 (discussing aesthetic appeal).

235 *See* Design Directive, *supra* note 39, art. 5 ("1. A design shall be considered to have individual character if the overall impression it produces on the informed user differs from the overall impression produced on such a user by any design which has been made available to the public before the date of filing of the application for registration or, if priority is claimed, the date of priority.").

Article 6 states:

> A design shall be considered to have individual character if the overall impression it produces on the informed user differs from the overall impression produced on such a user by any design which has been made available to the public.

Article 10 states:

> The scope of the protection conferred by a Community design shall include any design which does not produce on the informed user a different overall impression.

Such appearances of the term "informed user" indicates that it is a legal fiction playing an important role in determining the eligibility of design and the scope of protection conferred by a registered community design in respect of infringement.[236] However, the Design Regulation does not define the term "informed user,"[237] and it has been further elaborated in case law.

The first landmark ruling of the CJEU on a registered Community design was *PepsiCo, Inc. v. Grupo Promer Mon Graphic SA*.[238] In *PepsiCo*, the CJEU clarified the scope of Community design protection and defined the term "informed user" and "degree of freedom of the designer." The disputed issues were the validity of PepsiCo's registered design due to the failure to satisfy the relevant requirements[239] and that the design was in conflict with Grupo Promer's design.[240] The fact of this case concerned the design of items known as "Pogs" or "Tazos," colorful round shapes like coins made of materials such as plastics or aluminum. Grupo Promer had a registered Community design for the "metal plate[s] for games, claiming the priority of a Spanish design filed for registration on July 17,

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[236] *Id.* art. 10(1) ("The scope of the protection conferred by a Community design shall include any design which does not produce on the informed user a different overall impression.").

[237] The term "informed user" appears in the Design Regulation, rec. 10, arts. 6, 10.

[238] Case C-281/10 P, PepsiCo, Inc v. Grupo Promer Mon Graphic SA, 2011 E.C.R. I-10178 [hereinafter "*PepsiCo*"].

[239] *See* Design Regulation, *supra* note 40, art. 26(1)(b) ("A Community design may be declared invalid...if it does not fulfil the requirements of Articles 4 to 9."— the novelty, and individual character requirements, for instance).

[240] *Id*. art. 25(1)(d) ("A Community design may be declared invalid if the Community design is in conflict with a prior design which has been made available to the public after the date of filing of the application or, if a priority is claimed, the date of priority of the Community design, and which is protected from a date prior to the said date by a registered Community design or an application for such a design, or by a registered design right of a Member State, or by an application for such a right.").

2003,"[241] whereas PepsiCo started distributing the "promotional items for games," claiming the priority of a Spanish design filed for registration on July 23, 2003, as shown in Figure 3.1.[242]

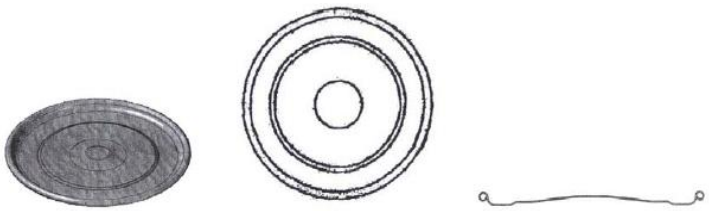

Figure 3.1 PepsiCo's registered design[243]

On September 9, 2003, Grupo Promer filed an application for a declaration of invalidity against PepsiCo's registered Community design to the Office of Harmonization for the Internal Market (OHIM); the declaration was based on the "prior design," registered community design No. 53186-001 filed on July 17, 2003, which claimed the priority of a Spanish design No. 157098 filed on July 8, 2003. The registered Community design was for "metal plate(s) for games," as shown in Figure 3.2.

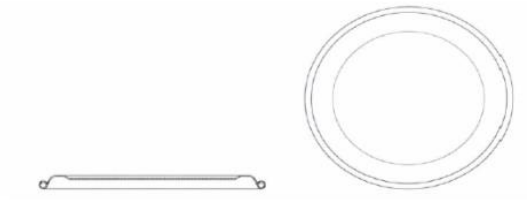

Figure 3.2 The prior design[244]

The OHIM invalidated PepsiCo's registered Community design. PepsiCo then appealed to the Board of Appeal, which later revoked the invalidation. In contrast, the General Court ruled in favor of Grupo Promer, holding that PepsiCo's design was invalid due to the lack of novelty resulting from too insignificant differences between the designs at issue and that the degree of the freedom of the designer was not too restricted, for instance, by a technical necessity to avoid the similarity of designs. PepsiCo then appealed to the CJEU, contesting the interpretation of "informed users" and "designer's

241 *PepsiCo*, *supra* note 238, ¶ 12 (describing the background to the dispute and showing the representative image).
242 *Id.* ¶¶ 9-10 (describing the background to the dispute and showing the representative image).
243 *Id.* ¶ 10.
244 *Id.* ¶ 12.

freedom." In essence, the CJEU rejected PepsiCo's arguments, holding that informed users are more knowledgeable about the design at issue than average consumers but are not sectoral experts.[245] When comparing two designs, the informed users can consider the designs as embodied in the actual products and assess the overall impression based on their personal knowledge as observant users.[246]

In *El Hogar Perfecto del Siglo XXI, SL v. OHIM; Wenf International Advisers Ltd,*[247] the term "informed user" was interpreted as referring to a user who is "particularly observant, either because of his personal experience or because of his extensive knowledge of the sector in question."[248] Moreover, the subjective assessment of personifying the informed user can be contentious since the informed user is a legal fiction or an imaginary individual[249] and should be assessed objectively as the reasonably circumspect consumer in trademark law.[250] In cases where there is more than one group of the informed users, the General Court in *Sphere Time v OHIM—Punch*[251] held that "one of the two groups of informed users mentioned above perceives the designs at issue as producing the same overall impression is sufficient for a finding that the contested design lacks individual character."[252] To put it succinctly, the informed user is a legal fiction whose personality is unnecessary, but their experience and knowledge in the relevant field are required to observe the designs through the use of the product. An informed user does not have to be an expert but must be more knowledgeable than an average consumer about the product at issue. Although there is an issue whether an informed user refers to a user of the "design" or the "product," it is apparent that the latter is more sensible, considering that the

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245 *See also PepsiCo*, *supra* note 238, ¶ 53 (The concept of the informed user "must be understood as lying somewhere between that of the average consumer, applicable in trade mark matters, who need not have any specific knowledge and who, as a rule, makes no direct comparison between the trade marks in conflict, and the sectoral expert, who is an expert with detailed technical expertise. Thus, the concept of the informed user may be understood as referring, not to a user of average attention, but to a particularly observant one, either because of his personal experience or his extensive knowledge of the sector in question.").

246 *See id.* ¶ 74 (holding that the assessment of the overall impression by comparing the registered designs and the actual goods was justified because "the comparison of the actual goods was used only for illustrative purposes in order to confirm the conclusions already drawn").

247 Case T-337/12, El Hogar Perfecto del Siglo XXI, SL v. OHIM; Wenf International Advisers Ltd., ECLI:EU:T:2011:60 (holding that the informed user of corkscrews is not only sommeliers, but also private wine buffs).

248 *Id.* ¶ 27.

249 *See* STONE, EU DESIGN LAW, *supra* note 36, at 219.

250 *Id.* at 220.

251 Case T-68/10, Sphere Time v. OHIM – Punch SAS, ECLI:EU:T:2011:269.

252 *Id.* ¶ 56.

term is interpreted as meaning a person who lies between the average consumer and the sectoral expert.[253] On this point, Stone notes that "the language of the Regulation and the Directive points clearly to the informed user being the informed users of a product made to the registered design, not the informed user of the prior design,"[254] and states that if the allegedly infringed product is a tablet, the informed user must be that of a tablet.[255]

Furthermore, the degree of freedom of the designer is a core factor in assessing individual character[256] and the scope of protection.[257] The Design Regulation and Design Directive do not elaborate on the extent to which factors are relevant to the assessment of the degree of freedom. In developing the design, the degree of freedom can be affected by several factors, such as "(i) the technical function of the product or an element thereof; (ii) the need to incorporate features common to such products; and/or (iii) economic considerations."[258] However, product trends are not a constraint on the designer's freedom in developing the design.[259] The term "designer" also does not refer to an actual designer but a putative one.[260] The design freedom also does not change as time passes.[261] The degree of freedom affects the difference in the overall impression produced by the design on the informed user because "the more the designer's freedom in developing the contested design is restricted, the more likely it is that minor differences between the designs at issue will be sufficient to produce a different overall impression on the informed user."[262]

As regards the "overall impression," the Design Regulation and Design Directive merely mention that the informed user must take into consideration "the nature of the product to which the design is applied or in which it is incorporated and in particular, the industrial sector to which it

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253 *See supra* note 245 (quoting *PepsiCo*, *supra* note 238, ¶ 53).
254 STONE, EU DESIGN LAW, *supra* note 36, at 222.
255 *Id.* at 224 (citing Case ICD 8539 Samsung Electronics Co Limited and Others v. Apple Inc. (Invalidity Division, 5 July 2013)).
256 Design Regulation, *supra* note 40, art. 6(2) ("In assessing individual character, the degree of freedom of the designer in developing the design shall be taken into consideration.").
257 *Id.* art. 10(2) ("In assessing the scope of protection, the degree of freedom of the designer in developing his design shall be taken into consideration.").
258 SUTHERSANEN, LEGAL REVIEW ON INDUSTRIAL DESIGN PROTECTION IN EUROPE, *supra* note 38, at 65.
259 *See* Case T-357/12, Sachi Premium-Outdoor Furniture v. OHMI - Gandia Blasco SA, ECLI:EU:T:2014:55.
260 *See* STONE, EU DESIGN LAW, *supra* note 36, at 230.
261 *See id.*; *see also* Design Regulation, *supra* note 40, art. 6(1).
262 *PepsiCo*, *supra* note 238, ¶ 29.

belongs."[263] Such considerations matter in assessing whether "a design has individual character when the overall impression produced on an informed user viewing the design clearly different from that produced on him by the existing design corpus."[264] The difference of the overall impression must occur from comparing the designs side by side and must be based on the comparison of the design as a whole, not a mix of different features.[265] The comparison is also not restricted to the design registered or disclosed because "it is not mistaken, in the assessment of the overall impression of the designs at issue, to take account of the goods actually marketed which correspond to those designs."[266] In this regard, only the relevant industrial sector matters to the assessment of the individual character[267] and is also consistent with the assessment of the novelty of the design, [268] as previously discussed.

(iii) Statutory exclusions

In addition to the requirements for protection, the Community design rights do not subsist in "a design which is contrary to public policy or to accepted principles of morality."[269] Other exclusions concern technical function and interconnections. With the aim to prevent unduly restricting innovation and competition,[270] the Community design rights do not subsist in features solely dictated by technical function.[271] The functionality exclusion indirectly demarcates subject-matter that is more appropriate to be protected under patent law. The assessment of the exclusion is not without intense debates. There are chiefly two approaches to determine whether a feature of the appearance of a product is solely

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263 Design Regulation, *supra* note 40, rec. 14; *see also* Design Directive, *supra* note 39, rec.13.
264 *Id.*
265 *See* Case C-345/13, Karen Millen Fashions Ltd v. Dunnes Stores, and Another, ECLI:EU:C:2014:2013, ¶ 26 ("because that type of comparison actually relates to the impression produced on that user by earlier individualised and defined designs, as opposed to an amalgam of specific features or parts of earlier designs.").
266 *PepsiCo*, *supra* note 238, ¶ 73.
267 Design Regulation, *supra* note 40, rec. 14; *see also* Design Directive, *supra* note 39, rec.13.
268 Design Regulation, *supra* note 40, art. 7(1) (setting fourth that a design shall not be deemed to have been made available to the public "where these events could not reasonably have become known in the normal course of business to the circles specialised in the sector concerned, operating within the Community.").
269 *Id.* art. 9.
270 *Id.* rec. 10; Design Directive, *supra* note 39, rec. 14 ("Technological innovation should not be hampered by granting design protection to features dictated solely by a technical function."); SUTHERSANEN, DESIGN LAW, *supra* note 212 at 107.
271 Design Regulation, *supra* note 40, art. 8(1); Design Directive, *supra* note 39, art. 7(1).

dictated by technical function.[272] First, the "multiplicity of forms" test provides that the designer has an alternative between two or more configurations to achieve the technical function; thus, the design is not dictated solely by technical function.[273] An argument against the multiplicity of forms approach is that only a few cases are subject to the exclusion since there will be at least "one other way of achieving the technical function."[274] Nonetheless, there were proponents of the multicity of forms in multiple jurisdictions, namely the UK and France. [275] Another approach is the no aesthetic considerations, asking the designer a question whether the designer had in mind any function other than a technical function in designing that feature. If the answer is "no," then the feature is solely dictated by the technical function.[276]

In 2018, the CJEU in *Doceram*[277] clarified how the functionality exclusion should be assessed, particularly concerning designs solely dictated by its technical function as prescribed in Article 8(1) of the Design Regulation. The CJEU held that in determining whether the features of appearance of a product are solely dictated by technical function as prescribed in Article 8(1), the technical function must be the only factor determining the features of appearance of a product and that the availability of alternative designs is not a decisive factor in the assessment. The *Doceram* case indicated that the CJEU leaned towards the UK court's approach, called "Amp/causality." In *Amp v. Utilux*,[278] the UK court held that a design created only by the technical function without consideration for visual appearance was invalid. Further, the CJEU held that in determining whether the relevant features are solely dictated by technical function, the national court does not have to base the findings on the perception of an objective observer but must consider all objective circumstances relevant to the design on a case-by-case basis.

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[272] STONE, EU DESIGN LAW, *supra* note 36, at 87.
[273] *Id*.
[274] *Id*.
[275] *Id*. (citing Landor & Hawa International Ltd v. Azure Designs Ltd [2006] EWCA Civ 1285 (July 28, 2006; Case 2006R00065 Procter et Gamble Co. v. SAS Reckitt Benckiser France (Tribunal de Commerce d'Evry, Apr. 5, 2006).
[276] STONE, EU DESIGN LAW, *supra* note 36, at 88.
[277] Case C-395/16, Doceram GmbH v. CeramTec GmbH, ECLI:EU:C:2018:172 [hereinafter "*Doceram*"].
[278] AMP Inc. v. Utilux Pty Ltd. [1971] FSR 572.

Another exclusion, the so-called "must fit" features, excludes from protection "features of appearance of a product which must necessarily be reproduced in their exact form and dimensions in order to permit the product in which the design is incorporated or to which it is applied to be mechanically connected to or placed in, around or against another product so that either product may perform its function."[279] Put simply, Community design rights do not subsist in the features that must fit with another product. For example, a plug connector contains features that must fit with the power socket; hence, those features are not protected by Community design rights. The primary aim of the must-fit exclusion is to ensure interoperability and competition, preventing those features from becoming monopolies.[280] Nevertheless, the exclusion does not apply to a modular product, which means "a design serving the purpose of allowing the multiple assembly or connection of mutually interchangeable products within a modular system."[281] In other words, Community design rights subsist in such a modular product: a building block made to facilitate multiply forms of assembly in a system, for instance. The rationale behind the protection is different from that of the functionality and must-fit exclusions, emphasizing the monetary values of modular products. [282]

(iv) Scope of protection

Once the design satisfies all the requirements for protection, the right to the Community design vests in the "designer or his successor in title."[283] There is an exception to the rule when the design is "developed by an employee in the execution of his duties or following the instructions given by his employer."[284] In such a case, the employer has the right to the Community design, "unless otherwise agreed or specified under national law."

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279 Design Regulation, *supra* note 40, art. 8(2).
280 STONE, EU DESIGN LAW, *supra* note 36, at 100 (citing the Green Paper, at 63-4).
281 *Id.* at 53.
282 Design Regulation, *supra* note 40, rec. 11 ("The mechanical fittings of modular products may nevertheless constitute an important element of the innovative characteristics of modular products and present a major marketing asset, and therefore should be eligible for protection.").
283 *Id.* art. 14(1).
284 *Id.* art. 14(3).

The rightsholders of a registered Community design have the exclusive rights "to use it and to prevent any third party not having his consent from using it."[285] The term "use" includes "the making, offering, putting on the market, importing, exporting or using of a product in which the design is incorporated or to which it is applied, or stocking such a product for those purposes."[286] The rightsholders of an unregistered design have the right to prevent the acts prescribed in the exclusive right conferred for the registered Community design "only if the contested use results from copying the protected design."[287]

Under the Design Regulation, many provisions apply to both registered and unregistered Community designs, such as the provisions concerning the eligibility requirements, the functionality exclusion, and the limitation of Community design rights, for instance.[288] Major differences are that both registered and unregistered Community designs obtain different types and terms of the protection afforded to them under the Design Regulation. Unregistered design right holders have merely the right to prevent copying of their designs during the three year-term of protection from the first disclosure within the EU;[289] while registered design rights holders have the exclusive right to prevent unauthorized use that does not create a different overall impression on the informed user during a maximum of the twenty-five-year term of protection: the initial term is for five years from the filing date and can be "renewed for one or more periods of five years each."[290]

The European Union Intellectual Property Office (EUIPO) administers the system for registered Community designs.[291] In principle, the EUIPO examines only formal requirements regarding the application.[292] However, a substantive examination is conducted for two issues: whether the design applied for registration qualifies as the "design" eligible for registered Community design

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285 *Id.* art. 19(1).
286 *Id*.
287 *Id*. art. 19(2).
288 *See* Design Regulation, *supra* note 40, arts. 20-23 (prescribing acts that limit the Community design rights).
289 Design Regulation, *supra* note 40, arts. 11, 19.
290 Design Regulation, *supra* note 40, art. 12.
291 *See* Design Regulation, *supra* note 40, art. 2 ("EUIPO" became the new name of "OHIM" since Mar. 23, 2016).
292 *Registration Process*, EUIPO, https://euipo.europa.eu/ohimportal/en/rcd-registration-process (last visited May 2, 2021).

protection and whether the design is contrary to public policy and morality in the EU.[293] Individuals or legal persons can own a registered Community design.[294] The Design Directive and Design Regulation do not cover the enforcement of design rights as it is up to national laws,[295] which are to some extent harmonized by the Enforcement Directive.[296] In 2008, the EU became an official member of the Hague Agreement, which means:[297] 1) any person, who is a national or habitual resident of an EU Member State, or have a domicile or real and effective industrial or commercial establishment in an EU Member State, can seek industrial design protection in one or more contracting parties of the Hague Agreement; and 2) there is an option to designate the EU and enjoy the same benefits provided for the Community design protection.[298]

3.1.3 The Interface between Design and Copyright for Industrial Design Protection in the EU

This section first investigates the legal framework related to cumulative protection between design and copyright under the Design Directive and Design Regulation. It then examines the landmark cases of *Flos,*[299] *Cofemel,*[300] and *Brompton.*[301]

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293 *Id*.

294 *See* Design Regulation, *supra* note 40, arts. 77, 78.

295 *See* Design Directive, *supra* note 39, rec. 5 ("…provisions on sanctions, remedies and enforcement should be left to national law."). *See also* Design Regulation, *supra* note 40, rec. 22 ("The enforcement of these rights is to be left to national laws….".

296 *See* Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights (Official Journal of the European Union L 157 of Apr. 29, 2004).

297 The EU officially became a contracting party on Jan. 1, 2008.

298 The UK cannot be designated after Dec. 31, 2020, due to the end of Brexit transition period.

299 Case C-168/09, Flos SpA v. Semeraro Casa e Famiglia SpA, ECLI:EU:C:2011:29 [hereinafter "*Flos"*].

300 Case C-683/17, Cofemel– Sociedade de Vestuário SA v. G-Star Raw CV, ECLI:EU:C:2019:721 [hereinafter "*Cofemel*"].

301 Case C-833/18, SI, Brompton Bicycle Ltd v. Chedech/Get2Get, ECLI:EU:C:2020:461 [hereinafter "*Brompton*"].

3.1.3.1 Cumulative protection between design rights and copyright under the Design Directive and Design Regulation

The interrelationship between design and copyright protection is equivocal under the Design Directive and Design Regulation. EU Member States are "free to establish the extent of copyright protection and the conditions under which such protection is conferred."[302] For example, EU Member States can establish the level of originality required for the copyrightability of industrial designs as well as other conditions and the scope of copyright protection.[303] The absence of harmonization in copyright law contributes to the different degrees of protection for industrial designs in the EU.[304] Historically, the Green Paper and the Max Planck Proposal allowed cumulation between design and copyright protection.

The Green Paper provides:

> No design should be denied protection under copyright law for the 'sole' reason that it has been registered either at national or at Community level.[305]

The Max Planck Proposal provides:

> A community design right does not preclude protection of the appearance of the product from being protected as a work under national copyright law.[306]

Following both proposals, the Design Directive and Design Regulation adopted the proposed drafts prohibiting EU Member States from excluding copyright protection for designs protected at the EU level as set forth in the Preamble of the Design Directive and Design Regulation:

Recital 8 of the Design Directive provides:

> Whereas, in the absence of harmonisation of copyright law, it is important to establish the principle of cumulation of protection under specific registered design protection

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302 *See* Design Directive, *supra* note 39, rec. 8; Design Regulation, *supra* note 40, rec. 32.
303 *See id.* art. 17.
304 *See* Estelle Derclaye, *Are Fashion Designers Better Protected in Continental Europe than in the United Kingdom? A Comparative Analysis of the Recent Case Law in France, Italy and the United Kingdom*, 13 J. WORLD INTELL. PROP. 315 (2010).
305 The Green Paper, *supra* note 161, at 146.
306 The Max Planck Proposal, *supra* note 160, art. 14.

> law and under copyright law, whilst leaving Member States free to establish the extent of copyright protection and the conditions under which such protection is conferred.[307]

Recital 32 of the Design Regulation provides:

> In the absence of the complete harmonisation of copyright law, it is important to establish the principle of cumulation of protection under the Community design and under copyright law, whilst leaving Member States free to establish the extent of copyright protection and the conditions under which such protection is conferred.[308]

Comparing recital 8 of the Design Directive and recital 32 of the Design Regulation, the fundamental principle underlying both recitals is the establishment of cumulative protection under design and copyright laws and that Member States maintain the freedom to legislate the conditions and extents of copyright protection for industrial designs. A noticeable difference between the recitals relates to the absence of the harmonization of copyright law: recital 32 added the term "complete" to the phrase, opening to different interpretations as to whether cumulative protection is not required when copyright law is wholly harmonized in the EU. An explanation for the term also results from the enactment of the Information Society Directive,[309] which entered into force in 2001 after the enactment of the Design Directive to harmonize aspects of copyright law throughout the EU. Professor Lionel Bently noted that the added term "complete" reaffirmed the freedom of EU Member States, although the Information Society Directive harmonizes some aspects of national copyright laws.[310] In this regard, EU Member States retain their autonomy to set conditions required for cumulative protection with copyright in industrial designs.

The key provisions prescribing the relationship between industrial design and copyright are Article 17 of the Design Directive and Article 96(2) of the Design Regulation, which mirrors recital 8 of the Design Directive and recital 32 of the Design Regulation; the provisions allow either partial or full cumulation with copyright over the same subject-matter and provide autonomy to Member States in respect of the extent and conditions required for protection under copyright law.

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307 Design Directive, *supra* note 39, rec. 8.
308 Design Regulation, *supra* note 40, rec. 32.
309 Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society [hereinafter the "Information Society Directive"].
310 Lionel Bently, *The Return of Industrial Copyright?*, 10 E.I.P.R. 654 (2012).

Article 17 of the Design Directive states:

> A design protected by a design right registered in or in respect of a Member State in accordance with this Directive shall also be eligible for protection under the law of copyright of that State as from the date on which the design was created or fixed in any form. The extent to which, and the conditions under which, such a protection is conferred, including the level of originality required, shall be determined by each Member State.[311]

Article 96(2) of the Design Regulation states:

> A design protected by a Community design shall also be eligible for protection under the law of copyright of Member States as from the date on which the design was created or fixed in any form. The extent to which, and the conditions under which, such a protection is conferred, including the level of originality required, shall be determined by each Member State.[312]

The provisions unequivocally determine the relationship between copyright and design rights in that both rights can co-exist: an industrial design already enjoying Community design protection is still eligible for copyright protection under the national legislation of EU Member States. Accordingly, EU Member States have a leeway to adopt full or partial cumulation between copyright and design rights.[313] In other words, it is clear under Article 17 of the Design Directive and Article 96(2) of the Design Regulation that cumulative protection by design rights and copyright is permitted and cannot be excluded in EU Member States. Aside from the expressly permissible cumulation, there are no other provisions regulating the design/copyright interface in detail. Article 7 of the Design Directive and Article 8 of the Design Regulation are relevant merely to the scope of cumulation by virtue of the functionality and interconnection exclusions because it can be inferred that cumulative protection between design rights and copyright cannot occur for designs solely dictated by its technical function and designs required to be reproduced to permit interconnections with a product so as to perform its function. In other words, the Design Directive mainly harmonized aspects of national design laws and slightly tackled the issues related to cumulation with copyright. Further, the national copyright laws have not been fully harmonized in the EU since merely some aspects of copyright laws have been

311 Design Directive, *supra* note 39, art. 17.
312 Design Regulation, *supra* note 40, art. 96(2).
313 *See supra* 4.3.1 (discussing in detail about the different levels of cumulative protection among EU Member States).

harmonized by the EU Copyright Directives, including the Information Society Directive, Copyright Term Directive,[314] and Digital Single Market Directive.[315] As a consequence, the different levels of protection conferred by the national legislation of EU Member States additionally contribute to complications of the EU design/copyright interface.

After the enactment of the Design Directive, the relationship between industrial design and copyright protection changed in many EU countries. For example, in Germany, the German Federal Court of Justice (BGH), in the so-called "*Birthday train*" case (2013),[316] abolished the distinction between works of art and works of applied art under the two-tier theory (*Stufentheorie*), which provides that design law protects new and individual designs (step 1), whereas copyright protects highly creative designs (step 2).[317] The change did not result from the EU mandate but rather the German "homemade" solution, although "the court was eager to avoid a conflict with the CJEU case."[318] Subsequently, the requirement of a higher level of originality for protecting industrial designs by copyright no longer exists in Germany after the decision in 2013. Furthermore, Italy revolutionized its legislation related to industrial design protection because cumulative protection between industrial design and copyright was impermissible before the implementation of the Design Directive, as will be examined below.

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314 Directive 2006/116/EC of the European Parliament and of the Council of 12 December 2006 on the term of protection of copyright and certain related rights [hereinafter the "Copyright Term Directive"].

315 Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC [hereinafter the "Digital Single Market Directive"].

316 *See Geburtstagszug*, Case No. I ZR 143/12, Nov. 13, 2013 [hereinafter "*Birthday train*"].

317 Ansgar Ohly, *The Case for Partial Cumulation in Germany*, in THE COPYRIGHT/DESIGN INTERFACE: PAST, PRESENT, AND FUTURE 128 (Estelle Derclaye ed., 2018) [hereinafter "Ohly, *The Case for Partial Cumulation in Germany*"] at 167.

318 *Id.*

3.1.3.2 The stance of CJEU on cumulative protection between design and copyright: The *Flos* case[319]

The CJEU ruled on the issue of the design/copyright interface in the case of *Flos v. Semeraro*, broadly interpreting cumulative protection between design rights and copyright. *Flos* was a landmark case affirming the permissible cumulation and prohibiting EU Member States from precluding copyright protection for industrial designs by virtue of being incompatible with Article 17 of the Design Directive. The CJEU interpreted the term "the extent" in Article 17 as meaning that Member States could not prevent the existence of cumulation and voluntarily assigned the term of copyright protection for industrial designs because it must comply with the Copyright Term Directive.[320]

The fact of the case concerns the iconic *Arco* lamp created in 1962 by Achille and Pier Giacomo Castiglioni,[321] as illustrated in Figure 3.3.

Figure 3.3 Arco lamp[322]

Prior to implementing the Design Directive, [323] Italy had adopted the principle of "separability" ("scindibilità"), conferring copyright protection to industrial designs only where the artistic aspect is separable from the inherent nature of the article. Following the implementation of the

[319] *Flos*, *supra* note 299.
[320] *See* Copyright Term Directive, *supra* note 314. Note that the CJEU referred to Council Directive 93/98/EEC of Oct.29, 1993 harmonising the term of protection of copyright and certain related rights [hereinafter the "Copyright Duration Directive"], which was replaced by Copyright Term Directive in 2006.
[321] The *Arco* lamp designed by the Castiglioni brothers became very popular in the Italian household.
[322] *Arco*, FLOS (May 10, 2021), https://flos.com/products/floor/arco/arco/.
[323] *See* Legislative Decree No. 95/2001 (enforcing the Design Directive in Italy in 2001).

Design Directive in 2001, the amended Italian Copyright Law eradicated the separability requirement, affording protection to industrial designs having "inherent creativity and artistic value." [324] Furthermore, amendments to the Italian Industrial Property Code established twenty-five years of protection from the rightsholder's death [325] and a 10-year transitional regime exempting implementation of the newly amended copyright law to designs fallen into the public domain before 2001.[326] Copyright protection, therefore, could not be invoked against third parties who manufactured, sold, or marketed products using the designs in good faith during the 10-year moratorium period prior to April 19, 2001.[327] In 2007, Article 239 of the Italian Industrial Property Code was amended, and the 10-year moratorium period was abolished. The amendment stirred controversy in Italy and was later amended several times after the *Flos* case.[328]

In 2006, *Flos*, the manufacturer of the *Arco* lamp,[329] initiated a legal proceeding against *Semeraro* for copyright infringement of the *Arco* lamp because Semeraro imported its *Fluica* lamps from China and marketed them in Italy. *Semeraro* argued that there was no copyright infringement, and that the *Arco* lamp did not have copyright protection. The Court of Milan held that *Semeraro* infringed the *Flos*'s design rights and that the *Arco* lamp obtained copyright protection under the Italian copyright law. In 2009, the Court of Milan then made a reference to the CJEU on the legal issue as to whether the amended Italian copyright law related to industrial designs was non-conforming with the Design Directive.

In 2011, the CJEU held that the Italian law did not comply with the Design Directive because it denied copyright protection to industrial designs, albeit they were in the public domain. It further noted that industrial designs that were unregistered and belonged to the public domain before the date

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[324] *See* Legislative Decree No. 633 of Apr. 22, 1941, last amended by Legislative Decree No. 68 of Apr. 9, 2003 [hereinafter "Italian Copyright Law"], art. 2(10).

[325] *See* Legislative Decree No. 30/2005 of Feb.10, 2005 [hereinafter "Italian Industrial Property Code"], art. 44.

[326] *Id.* art. 239.

[327] The date on which Legislative Decree No. 95/2001 entered into force.

[328] *See* Italian Industrial Property Code, *supra* note 325, art. 289 (amendments were made by art. 4, Legislative Decree No. 10 of Feb. 15, 2007; art. 19, Legislative Decree No. 99 of July 23, 2009; art. 123, Legislative Decree No. 131 of Aug. 13, 2010; art. 8, Legislative Decree No. 70 of May 13, 2011; and art. 22bis, Legislative Decree No. 216 of Dec. 29, 2011.

[329] The *Arco* lamp was one of the industrial designs fallen to the public domain before 2001.

of entry into force of the domestic law implementing the Design Directive were outside the scope of Article 17 of the Design Directive. The CJEU clarified that Article 17 of the Design Directive enforced the copyrightability of only registered designs and that the copyrightability of unregistered designs was a matter under the Information Society Directive.

Arguably, the CJEU's ruling appeared questionable as to the correctness of the interpretation of Article 17 because "[t]he Court indicates that Member States are obliged to protect all original designs (not just registered designs) by copyright and implicitly precludes the possibility of imposing conditions on acquisition."[330] The CJEU also "explicitly prohibits limitations on the term of protection afforded by such copyright, and implicitly disallows limitation that are intended to cabin the scope of the rights conferred or to regulate the relationship with other protection regimes."[331] Literature criticized the CJEU's ruling of *Flos* about the scope of interpretation of Article 17 vastly overriding the autonomy of a Member State to regulate copyright protection in industrial designs.[332] Professor Bently criticized the court's application of the Information Society Directive, Article 9 of which explicitly affirms the continued application of other legal provisions, stating that "[t]his Directive shall be without prejudice to provisions concerning in particular patent rights, trade marks, design rights…."[333] In addition, Recital 60 of the Directive states:

> The protection provided under this Directive should be without prejudice to national or Community legal provisions in other areas, such as industrial property...which may affect the protection of copyright or related rights.

Hence, applying the Information Society Directive in *Flos* might not be a correct approach since the case concerned industrial design, which is industrial property prescribed in recital 60. In other words, recital 60 provides that the protection afforded by the Information Society Directive must not be prejudiced against the Community legal provisions in the area of industrial property. The

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330 *See* Bently, *The Return of Industrial Copyright, supra* note 310, at 2.

331 *Id*.

332 *Id*. ("[T]he Court virtually deletes Article 17 of the Design Directive, a provision which had explicitly reserved to Member States control over the conditions for granting and extent of protection afforded to designs by copyright."); *see also id.* at 15 (noting that the CJEU misread the legislative history, wrongly prioritized cumulation with copyright as initially expressed by the Commission's intention and discarded the changes of legislative intent).

333 Information Society Directive, *supra* note 309, art. 9.

CJEU's ruling in *Flos*, thus, failed to correctly interpret recital 60 and Article 9 of the Information Society Directive by jeopardizing the Design Directive, Article 17, which ensures that EU Member States have the freedom to determine the extent to which and the conditions under which copyright protection is conferred for industrial designs.[334]

After *Flos*, Italy amended its national legislation to align with the CJEU's ruling on the relationship between industrial design and copyright protection. The Italian Industrial Property Code affords industrial designs full copyright protection, provided that the requirements are met. Additionally, copyright protection is now available to industrial designs fallen into the public domain before April 19, 2001; and that any third parties who, before that date, manufactured or sold products incorporating the industrial designs already in the public domain are not liable for copyright infringement even if those activities had continually occurred after that date. Nevertheless, a limitation applies to those actions which occurred before that date or within the thirteen years after that date if they do not exceed the quantitative limits of prior use.[335] Another impact of the *Flos* case occurred in the UK; following the CJEU's ruling, the UK repealed a statutory provision limiting the term of copyright protection for designs industrially exploited in more than fifty copies; and so, from July 28, 2016, there is no limited term of protection for such industrial design because the term of protection for the life of the creator plus seventy years applies to all artistic works.

3.1.3.3 The stance of CJEU on the originality requirement of copyright protection for industrial designs: The *Cofemel* case[336]

In 2019, the *Cofemel* case had a significant impact on copyright protection for industrial designs in relation to the Information Society Directive. The fact of this case concerns clothing designs of "GStar," a Dutch clothing company, and "Cofemel," a Portuguese company. In 2013, GStar filed a copyright infringement lawsuit against Cofemel, alleging that Cofemel copied GStar's designs for

334 *See* Bently, *The Return of Industrial Copyright*, *supra* note 310, at 18 n.84.
335 *See* Italian Industrial Property Code, *supra* note 326, as amended by art. 22bis, Legislative Decree No. 216 of Dec. 29, 2011.
336 *Cofemel*, *supra* note 300.

clothing such as jeans and t-shirts. The Portuguese law, at the time, conferred copyright to industrial designs having the artistic character as works of art.[337] The Portuguese court then referred a question to the CJEU: whether Article 2(a) of the Information Society Directive precluded Member States from requiring industrial designs to possess aesthetically visual effects as works of art for copyright protection.

In 2019, the CJEU held that Member States cannot require an additional requirement other than the originality requirement for copyright protection of industrial designs. The CJEU concluded:

> Article 2(a) of Directive 2001/29 must be interpreted as precluding national legislation from conferring protection, under copyright, to designs such as the clothing designs at issue in the main proceedings, on the ground that, over and above their practical purpose, they generate a specific, aesthetically significant visual effect.[338]

The CJEU further reasoned that copyright protection is available for industrial designs, provided they satisfy the originality requirement of being a "work" under the Information Society Directive.[339] Even though the notion of "work" is absent from the Information Society Directive, it can be explained through CJEU case law. The qualifications of "work" require an intellectual creation of an author, reflecting his or her personality, including free and creative choices,[340] and that the expression of work must be identifiable with sufficient precision and objectivity.[341] Furthermore, industrial designs may obtain both design rights and copyright protection cumulatively if they fulfill all requirements for protection.[342] In this regard, the CJEU reasoned that both protections serve

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337 *See* Code on Copyright and Related Rights (*Código do Direito de Autor e dos Direitos Conexos*), art. 2 (stipulating that original works are: "1.Intellectual creations in the literary, scientific and artistic fields, irrespective of their genre, form of expression, quality, mode of communication and objective, shall include, inter alia:…(i) Works of applied art, industrial designs and works of design which constitute an artistic creation, irrespective of the protection relating to industrial property." (as cited in *Cofemel*, *supra* note 300, ¶ 15).

338 *Cofemel*, *supra* note 300, ¶ 56.

339 *See* Information Society Directive, *supra* note 309, art. 2(a) ("Member States shall provide for the exclusive right to authorise or prohibit direct or indirect, temporary or permanent reproduction by any means and in any form, in whole or in part: (a) for authors, of their works.").

340 *See Cofemel*, *supra* note 300, ¶ 30 (citing Case C-145/10, Eva-Maria Painer v. Standard VerlagsGmbH and Others, ECLI:EU:C:2011:798 [hereinafter "*Painer*"]; Case C-161/17, Land Nordrhein-Westfalen v. Dirk Renckhoff, ECLI:EU:C:2018:634).

341 *Id.* ¶ 32 (citing Case C-310/17, Levola Hengelo BV v. Smilde Foods BV, ECLI:EU:C:2018:899).

342 *Id.* ¶ 52.

different purposes and respect different rules, and allowing cumulation must not undermine the purposes and effectiveness of design and copyright laws. The CJEU stated:

> the protection of designs and the protection associated with copyright may, under EU law, be granted cumulatively to the same subject-matter, that concurrent protection can be envisaged only in certain situations.[343]

With regard to the CJEU's ruling in *Cofemel*, there are both positive and negative criticisms. The *Cofemel* case confirmed that copyright protection is available for industrial designs and, hence, full cumulation is permissible. Such a situation is welcomed by several industries, particularly the fashion industry. By contrast, legal scholars voiced concerns about broadening the scope of designs eligible for protection under copyright law, adding a caution that anti-competitive effects may arise from the longer term of copyright protection for functional designs.[344] Moreover, *Cofemel* implied that the degree of originality is not a matter of importance to industrial designs, provided they qualify as "works" of copyright under the Information Society Directive and meet the standards established in the CJEU's case-law.[345] In this regard, the different assessments of originality in EU Member States can be problematic, especially in cases related to industrial designs. The free and creative choices required to constitute a copyrightable "work" can be difficult to determine objectively for industrial designs which embody both aesthetic and technical achievements. The aesthetic effect does not, in essence, determine whether the industrial design constitutes an intellectual creation reflecting the creator's personality and the freedom of choices, albeit showing a creative activity.[346] By contrast, the technical functions play a vital role in assessing the originality requirement. When industrial designs

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[343] *Id.* ¶ 51.

[344] *See, e.g.*, IGIR, *The copyright implications of Cofemel*, MAASTRICHT U. (Jan. 29, 2020), https://www.maastrichtuniversity.nl/blog/2020/01/copyright-implications-cofemel.

[345] *See, e.g.*, Tito Rendas, *Copyright protection of designs in the EU: how many originality standards is too many?*, 13 JOURNAL OF INTELLECTUAL PROPERTY LAW & PRACTICE 439 (2018).

[346] *See Cofemel*, *supra* note 300, ¶¶ 53-55 (the CJEU reasoned that "the aesthetic effect that may be produced by a design is the product of an intrinsically subjective sensation of beauty experienced by each individual who may look at that design. Consequently, that subjective effect does not, in itself, permit a subject matter to be characterised as existing and identifiable with sufficient precision and objectivity, within the meaning of the case-law cited…;" and that "aesthetic considerations play a part in creative activity. Nonetheless, the fact remains that the circumstance that a design may generate an aesthetic effect does not, in itself, make it possible to determine whether that design constitutes an intellectual creation reflecting the freedom of choice and personality of its author.").

are subject to constraints of technical considerations, leaving no room for creative freedom, they will not qualify as the creator's own intellectual creations, and therefore, are not eligible for copyright protection.[347] Almost ten years after *Flos,* the CJEU affirmed once again in *Cofemel* that the freedom of EU Member States to regulate copyright protection for industrial designs is circumscribed by the EU legal and judicial frameworks.

3.1.3.4 The stance of CJEU on copyright protection of an industrial design dictated by its technical function: The *Brompton* case[348]

In 2020, the CJEU ruling in *Brompton* demonstrates that copyright can subsist in an industrial design dictated by its technical function. The fact of this case concerns a folding bicycle created in 1975 by Mr. SI who founded Brompton Ltd. to market his folding bicycles since 1987 [hereinafter the "Brompton bicycle"] The Brompton bicycle has a unique feature relating to a folded position, an unfolded position, and a stand-by position; the folding mechanism was protected by a now expired patent. Get2Get, a Korean company marketed folding bicycles called "Chedech," having similarity in the visual appearance and the folding positions as the Brompton bicycle. In 2017, Brompton filed a lawsuit against Get2Get to the *tribunal de l'entreprise de Liège* (Companies Court, Liège, Belgium) that the Chedech bicycle had infringed copyright in the Brompton bicycle. Get2Get argued that there was no copyright infringement because the appearance of the Chedech bicycle was dictated by the technical solution and thus "could be protected only under patent law, not under copyright law."[349]

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[347] *Id.* ¶ 31 ("[W]hen the realisation of a subject matter has been dictated by technical considerations, rules or other constraints, which have left no room for creative freedom, that subject matter cannot be regarded as possessing the originality required for it to constitute a work.") (citing e.g., Case C-604/10, Football Dataco and Others, ECLI:EU:C:2012:115, ¶ 39).

[348] *Brompton*, *supra* note 301.

[349] *Id.* ¶ 14.

Figure 3.4 Brompton bicycle[350]

The Belgian Court referred two main questions to the CJEU for a preliminary ruling. The first question is whether copyright protection under the Information Society Directive applies to a product whose shape is necessary to obtain a technical result. The second question concerns criteria for assessing whether a shape is necessary to obtain a technical result: such criteria are the existence of other possible shapes which achieve the same technical result, the effectiveness of the shape in achieving the result, the intention of the alleged infringer to achieve the result, and the existence of an earlier, now expired, patent for such a result.[351]

The CJEU held that Article 2 to 5 of the Information Society Directive[352] must be interpreted as meaning:

> the copyright protection provided for therein applies to a product whose shape is, at least in part, necessary to obtain a technical result, where that product is an original work resulting from intellectual creation, in that, through that shape, its author expresses his creative ability in an original manner by making free and creative choices in such a way that that shape reflects his personality, which it is for the national court to verify, bearing in mind all the relevant aspects of the dispute in the main proceedings.[353]

According to the CJEU's ruling in Brompton, copyright can subsist in a shape that is necessary to obtain a technical result. In this regard, the shape must be original, which means that it is

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350 Case C-833/18, SI, Brompton Bicycle Ltd v. Chedech/Get2Get, Opinion of Advocate General M. Campos Sánchez-Bordona, ECLI:EU:C:2020:79 [hereinafter the "Opinion of the AG Campos Sánchez-Bordona in *Brompton*"], ¶ 21.

351 *Brompton*, *supra* note 301, ¶ 19.

352 *Id.* ¶ 21 ("In accordance with Articles 2 to 5 of Directive 2001/29, authors are protected against the reproduction, communication to the public and distribution to the public of their works without their authorization.").

353 *Id.* ¶ 38.

an expression of the creator's own intellectual creation reflecting the creator's personality by making his or her free and creative choices.[354] The CJEU pointed out that the shape of the Brompton bicycle appears necessary to obtain a technical result because "the bicycle may be folded into three positions, one of which allows it to be kept balanced on the ground;" however, copyright protection is still available for the shape that is regarded as original.[355] The referring court has to determine whether the Brompton bicycle is a "work" eligible for copyright protection[356] and satisfies the originality requirement:[357] whether "through that choice of the shape of the product, its author has expressed his creative ability in an original manner by making free and creative choices and has designed the product in such a way that it reflects his personality."[358]

As regards the second question, the CJEU held that the assessment of originality of the product is necessary although there is a possibility of other shapes achieving the same technical result.[359] The intention of the alleged infringer is an irrelevant criterion in assessing originality.[360] The effectiveness of the shape in achieving the same technical result and the existence of an earlier, now expired, patent "should be taken into account only in so far as those factors make it possible to reveal what was taken into consideration in choosing the shape of the product concerned."[361] The CJEU concluded that the

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354 *See id.* ¶ 26 ("[A] subject matter satisfying the condition of originality may be eligible for copyright protection, even if its realisation has been dictated by technical considerations, provided that its being so dictated has not prevented the author from reflecting his personality in that subject matter, as an expression of free and creative choices.").

355 *Id.* ¶ 29.

356 *Id.* ¶ 30; ¶ 22 ("According to the Court's settled case-law, the concept of 'work' has two conditions. First, it entails an original subject matter which is the author's own intellectual creation and, second, it requires the expression of that creation."); ¶ 23 ("[I]f a subject matter is to be capable of being regarded as original, it is both necessary and sufficient that the subject matter reflects the personality of its author, as an expression of his free and creative choices.").

357 *Id*. ¶ 31 (It is not an original work "where the realisation of a subject matter has been dictated by technical considerations, rules or other constraints which have left no room for creative freedom or room so limited that the idea and its expression become indissociable.").

358 *Id.* ¶ 34 ("Therefore, in order to establish whether the product concerned falls within the scope of copyright protection, it is for the referring court to determine whether, through that choice of the shape of the product, its author has expressed his creative ability in an original manner by making free and creative choices and has designed the product in such a way that it reflects his personality.").

359 *Id.* ¶ 35 ("In that context, and in so far as only the originality of the product concerned needs to be assessed, even though the existence of other possible shapes which can achieve the same technical result makes it possible to establish that there is a possibility of choice, it is not decisive in assessing the factors which influenced the choice made by the creator. Likewise, the intention of the alleged infringer is irrelevant in such an assessment.").

360 *Id*.

361 *Id.* ¶ 36.

Information Society Directive does not exclude from copyright protection a product whose shape is necessary to achieve a technical result. However, the CJEU held that "[w]here the shape of the product is solely dictated by its technical function, that product cannot be covered by copyright protection."[362]

The CJEU's ruling in *Brompton* has important implications for copyright in functional industrial designs. The CJEU rejected the multiplicity of forms theory,[363] holding that the existence of an alternative shape achieving the same technical solution is not a decisive factor influencing the creator in choosing the shape,[364] and does not necessarily mean that the subject-matter is considered a "work" within the meaning of the Information Society Directive.[365] The CJEU also rejected the causality theory, which was described as the effectiveness of the shape in *Brompton*: the theory refers to cases where the only consideration for the design feature is to achieve its technical function, the functionality exclusion applies to the design feature.[366] According to *Brompton,* an industrial design dictated by technical considerations or other constraints can still be eligible for copyright protection if it possesses the originality reflecting the creator's personality as an expression of free and creative choices.[367]

There are both positive and negative comments about *Brompton*.[368] The positive one includes the CJEU's correct application of copyright principles, namely the concept of "work," the originality, and the idea-expression dichotomy:[369] the CJEU opted for objectivity in assessing the originality and upheld the harmonizing effect of copyright in industrial designs.[370] As for negative comments, the

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362 *Id.* ¶ 33.
363 *See supra* 3.1.2.2(iii) (providing details about the multiplicity of forms theory).
364 *See supra* note 359.
365 *Brompton*, *supra* note 301, ¶ 32.
366 *Id.* ¶ 17.
367 *Id.* ¶¶ 24, 26.
368 *See, e.g.*, Estelle Derclaye, *The CJEU Decision in Brompton Bicycle – A Welcome Double Rejection of the Multiplicity of Shapes and Causality Theories in Copyright Law*, KLUWER COPYRIGHT BLOG (June 25, 2020), http://copyrightblog.kluweriplaw.com/2020/06/25/the-cjeu-decision-in-brompton-bicycle-a-welcome-double-rejection-of-the-multiplicity-of-shapes-and-causality-theories-in-copyright-law/.
369 *See id.* ¶¶ 22-25, 27 (providing details about these concepts settled by the CJEU's case-law).
370 Estelle Derclaye, *Doceram, Cofemel and Brompton: How does the Current and Future CJEU Case Law Affect Digital Designs?* (Dec. 20, 2019) B. Pasa (ed.), Il design, l'innovazione tecnologica e digitale, Un dialogo interdisciplinare per un ripensamento delle tutele - Design, technological and digital innovation. Interdisciplinary proposals for reshaping legal protections, ESI Press, Naples, (forthcoming) (available at https://ssrn.com/abstract=3507802) [hereinafter "Derclaye, *Doceram, Cofemel and Brompton*"] at 14.

CJEU is criticized for being equivocal about important issues,[371] including the notion of free and creative choices. The CJEU should have clarified the notion to prevent its different application in each EU Member States: for instance, how it differs from the designer's freedom in design law.[372] This autonomy may lead to the different degree of creative freedom affecting the level of originality requirement for copyright of industrial designs dictated by technical considerations or other constraints.[373] The CJEU also disregarded several points presented in the opinion of the Advocate General Campos Sánchez-Bordona[374] about the design/copyright interface,[375] the analogy with other intellectual property rights,[376] the relevance of the earlier patent,[377] and the designer's intention,[378] for instance. Despite the ambiguities, the CJEU in *Brompton* presents an opportunity for an industrial design that is not exclusively dictated by a technical solution to be eligible for copyright protection if it is an original work,[379] as guided by CJEU Jurisprudence.

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371 *Id*. at 10.

372 Marco Ricolfi & Estelle Derclaye, *Opinion of the European Copyright Society in Relation to the Pending Reference Before the CJEU in Brompton Bicycle v Chedech / Get2Get, C-833/18*, (2019) [hereinafter "Ricolfi, *Opinion of the ECS in Brompton*"], ¶ 21.

373 *See* Derclaye, *Doceram, Cofemel and Brompton*, *supra* note 370, at 10.

374 *See, e.g.*, Ilanah Fhima, *Functionality, Cumulation and Lessons from Trade Mark Law: The Advocate General's Opinion in Brompton Bicycle*, 15 J. INTELL. PROP. L. & PRAC. 301 (2020) (criticizing Opinion of the AG Campos Sánchez-Bordona in *Brompton* before the CJEU's ruling).

375 Opinion of the AG Campos Sánchez-Bordona in *Brompton*, *supra* note 350, ¶ 41 ("That careful balance — which is most directly reflected in the short protection period granted to an inventor or designer — would be upset if the allotted term were simply extended to reach the generous periods afforded to copyright protection. Designers would lose the incentive to avail themselves of the industrial property system if, in return for lower costs and fewer procedural requirements (inter alia lack of registration), they were guaranteed copyright protection of their creations for a much longer term.").

376 *Id.* ¶ 70 ("It is true that each of those three fields (designs, trade mark law and copyright) have their own features which mean that the legal provisions governing them cannot be treated identically. However, I do not believe there is any reason why the Court's considerations concerning one of those fields should not be cautiously applied to the others where it is a case of interpreting a rule applicable, albeit with nuances, to all of them.").

377 *Id.* ¶ 80 ("[A] registered patent may serve to determine whether there were technical constraints which dictated the shape of the product….the choice of a patent as the tool for protecting the activity of the person registering that patent permits the assumption that there is a close relationship between the shape patented and the result intended.").

378 *Id.* ¶ 92 ("When examining whether or not there is a right for the object to be protected as a work, the court is entitled to explore the inventor or designer's original intention rather than that of the person who reproduces his invention or design.").

379 *See supra* note 353 (quoting the CJEU's ruling).

3.1.4 Conclusion

The EU streamlined the protection of industrial designs by harmonizing Member States' national design laws through the Design Directive and establishing the sui generis design protection regime under the Design Regulation. The EU Member States protect industrial designs by different approaches: the most commonly adopted approach appeared to be the patent approach in sui generis design legislation.[380] The national registration-based protection regime of industrial designs can co-exist with the EU-wide unitary design protection regime. The Design Directive, to a large extent, harmonizes the protection of industrial designs concerning the substantive aspects of EU Member States' laws. By contrast, there is no EU-wide copyright protection, although EU copyright laws harmonized some aspects of copyright protection in EU Member States. As a consequence, the approach to cumulative protection with copyright is not all harmonized in EU Member States; the four approaches adopted in EU Member States are: partially cumulative protection, non-cumulative protection, full cumulative protection, and total cumulative protection. The divergence of cumulation led to the CJEU resolving issues related to the design/copyright interface, playing a vital role in the harmonization of EU copyright laws. Nevertheless, those rulings are not without provoking debate. Owning to the EU's remit of fostering economic prosperity, the design/copyright interface in the EU is purported to be accommodating to the proprietors of industrial designs. As previously examined, the EU legal framework and the CJEU's rulings appear to advocate for the protection of industrial designs to the full.

[380] SUTHERSANEN, DESIGN LAW IN EUROPE, *supra* note 68, at 109.

3.2 The UK Experience

In the eighteenth century, the industrial revolution began in the UK because of new developments in various fields,[381] shaping the social and economic structures, which consequently affected the legal protection of industrial designs. The transformation of manufacturing processes led to many industrial innovations in the production of cotton, wool, iron, and coal.[382] The textile industry flourished from innovative methods which considerably facilitated the production of saleable commodities.[383] A factory system then emerged after the relevant technological developments, enabling a fast and large production. Consequently, the industrial revolution led to the increasing numbers of factories and textile mills: a cotton mill was the first factory in the UK. The cotton industry had played a vital role in the growth of the British economy and was also a key driving force of industrial design protection in the UK.[384] The changing environment resulted in the market expansion from exclusive to mass consumption, exacerbating counterfeit problems. Due to the industrial revolution and the ongoing counterfeit problems, the British legislature paid more attention to the protection of industrial products, which chiefly became one of the UK's valuable sources of income. For more than two hundred years, UK legislation related to industrial designs has been developed over time.[385]

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[381] From 1760 to 1840, the so-called "first industrial revolution" was due to machine technologies; *see generally* CAPTIVATING HISTORY, THE INDUSTRIAL REVOLUTION: A CAPTIVATING GUIDE TO A PERIOD OF MAJOR INDUSTRIALIZATION AND THE INTRODUCTION OF THE SPINNING JENNY, THE COTTON GIN, ELECTRICITY, AND OTHER INVENTIONS (2020) (providing basic information about the first industrial revolution).

[382] *See id.* (containing information about industrial innovations: for example, the "spinning jenny," invented by James Hargreaves, was a breakthrough innovation in cotton production).

[383] *See, e.g.*, CARTER-SILK & LEWISTON, *supra* note 3, at 5.

[384] *See generally* Lionel Bently, *The Design/Copyright Conflict in the United Kingdom: A History*, in THE COPYRIGHT/DESIGN INTERFACE 183 (Estelle Derclaye ed., 2018) [hereinafter "Bently, *The Design/Copyright Conflict*"] (describing that "the cotton industry – the number one British export industry from 1803 to 1938 – was to be the primary user of the design regime for the next century.").

[385] *See, e.g.*, JOHN SYKES, INTELLECTUAL PROPERTY IN DESIGNS (2005).

3.2.1 Historical Background in Brief: From the First Design Legislation to the Implementation of the Design Directive

The development of UK legislation related to industrial design protection started in the eighteen century and progressed toward more complex frameworks. As described above, the UK was the first nation to begin the industrial revolution, which, in turn, emphasized the need for industrial design protection. Subsequently, the UK was also the first nation to promulgate a sui generis design law.[386] However, the first nation that began protecting industrial designs was France. In the fifteenth century, the French king granted exclusive rights to protect textiles against fabrications. In 1711, the French Ordinance of the Consuls of Lyons outlawed the counterfeiting of weavings.[387] The French law of March 18, 1806, had prominently governed design protection for over a century in France and influenced design laws of many countries, including the UK.[388] To simplify the complex information, this dissertation explores the UK legislative developments concerning industrial design protection in chronological order by year, dividing them into four periods prior to the implementation of the Design Directive.

3.2.1.1 From 1700 to 1838

In 1700, the British Parliament enacted the first Calico Act[389] to ban the importation of printed calicos to safeguard the interests of the British textile industry.[390] Later, in 1721, the second Calico Act was passed to enforce more rigid control of the market.[391] After the industrial revolution, the UK became the world's leading textile manufacturer; the economic value of designs, thus, became

386 SUTHERSANEN, DESIGN LAW IN EUROPE, *supra* note 68, at 4.
387 *See* GRAHAM DUTFIELD & UMA SUTHERSANEN, DUTFIELD AND SUTHERSANEN ON GLOBAL INTELLECTUAL PROPERTY LAW 235 (2d ed. 2020).
388 *See generally* Teilmann-Lock, *Industrial Property*, *supra* note 128.
389 An Act for the more effectual employing the Poor, by encouraging the Manufactures of this Kingdom, 1700 [hereinafter "the first Calico Act 1700"].
390 *See generally* Jonathan P. Eacott, *Making an Imperial Compromise: The Calico Acts, the Atlantic Colonies, and the Structure of the British Empire*, 69 WM. & MARY Q. 731 (2012) (discussing the Calico Acts).
391 *Id*. at 732.

transparently obvious after the industrial revolution sparking the creators' interests to protect their works in a wide array of industrial goods. In 1735, the British Parliament enacted the Engraving Copyright Act 1735,[392] also known as the "Hogarth's Act 1735,"[393] to protect works of art concerning engravings. The Act, which closely resembled the Statue of Anne 1709, [394] conferred protection to engravings containing original designs and "implicitly made a distinction between artists and mere craftsmen."[395]

Importantly, the Calico Printers' Act 1787[396] was the first legislation conferring protection for two-dimensional designs applied to textiles such as linens, cotton, calicoes, and muslins since the textile industry contributed to the UK's economic success during the time.[397] The design obtained a two-month exclusivity from the first publication date for reprinting if the novelty and originality requirements were satisfied.[398] Any unauthorized copying was an infringement of the design right.[399] There were amended Acts in 1789[400] and 1794,[401] which extended the term of protection to three months.

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[392] An Act for the encouragement of the arts of designing, engraving, and etching historical and other prints, by vesting the properties thereof in the inventors and engravers, during the time therein mentioned, 1735, 8 Geo. II, c. 13 [hereinafter the "Hogarth's Act 1735"] (providing the protection for engravings having original designs for a period of fourteen years). The Act was enacted on June 25, 1735.

[393] The Act was named after William Hogarth who led a group of people including engravers and artists to lobby for the legal protection of works of art.

[394] An Act for the Encouragement of Learning, by Vesting the Copies of Printed Books in the Authors or Purchasers of such Copies, During the Times therein mentioned, 8 Ann. c. 19 [hereinafter the "Statute of Anne 1709"], which entered into force on Apr. 10, 1710 (providing the statutory copyright protection for literary works).

[395] Mark Rose, *Technology and Copyright in 1735: The Engraver's Act*, 21 INFO. SOC'Y 63 (2005) (providing details about the Hogarth's Act 1735).

[396] An Act for the Encouragement of the Arts of Designing and Printing Linens, Cottons, Calicoes, and Muslins, by vesting the Properties thereof, in the Designers, Printers and Proprietors, for a limited time, 1787, 27 Geo. III, c. 38 [hereinafter the "Calico Printers Act 1787"], which was enacted on June 1, 1787.

[397] *See, e.g.*, SYKES, *supra* note 385.

[398] *See, e.g.*, Teilmann-Lock, *Industrial Property*, *supra* note 128, at 409.

[399] *See* HUGH LADDIE, PETER PRESCOTT & MARY VITORIA, THE MODERN LAW OF COPYRIGHT AND DESIGNS 1870 (4th ed. 2011).

[400] An Act for the Encouragement of the Arts of Designing and Printing Linens, Cottons, Calico and Muslins by vesting in the properties thereof in the Designers, Printers and Proprietors, 1789, 29 Geo. III, c. 19 [hereinafter the "Designing and Printing of Linens Act 1789"].

[401] An Act for the Encouragement of the Arts of Designing and Printing Linens, Cottons, Calico and Muslins by vesting in the properties thereof in the Designers, Printers and Proprietors for a limited time, 1794, 34 Geo. III, c. 23 [hereinafter the "Calico Printers' Act 1794"].

The Sculptures Copyright Act 1798 conferred protection, for the first time, to new three-dimensional designs, including models, sculptures, casts, and figures.[402] The legal protection was limited to the representation of human and animal figures and granted exclusive rights to the creators for fourteen years.[403] The Act also introduced the novelty requirement and remedies for infringement.[404] The Sculptures Copyright Act 1798 was superseded by the Sculpture Copyright Act 1814, which extended the protection to cover subject-matter other than human and animal figures for fourteen years from the first publication date.[405] The Sculpture Copyright Act was later repealed by the Copyright Act 1911.[406]

3.2.1.2 From 1839 to 1874

The enactment of the Copyright of Designs Act 1839 paved the way for the modern design laws in the UK, exerting an influence over the current industrial design protection.[407] The Act conferred protection to two- and three-dimensional designs that were new and original: the copyrightable subject-matter included ornamental designs applied to "any article of manufacture," as well as shape or configuration.[408] Importantly, a system of registration was also introduced for protection conferred upon designs, except patterns for cotton fabric, from the date of registration. The registration requirement differentiated between copyright protection for industrial designs and other works.

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402 An Act for Encouraging the Art of Making New Models and Casts of Busts, and other things therein mentioned, 1798, 38 Geo. 3, c. 71 [hereinafter the "Sculptures Copyright Act 1798"].

403 *See, e.g.*, CARTER-SILK & LEWISTON, *supra* note 3, at 24.

404 *Id*.

405 An Act to Amend the Several Acts for the Encouragement of Learning by Securing Copies and Copyright of Printed Books to the Authors of such Books or their Assigns Sculpture Copyright Act, 1814, 54 Geo. 3, c. 156 [hereinafter the "Sculpture Copyright Act 1814"].

406 Copyright Act 1911, *supra* note 31.

407 Two Acts were passed in 1839: An Act For Extending The Copyright Of Designs For Calico Printing To Designs For Printing Other Woven Fabrics, 1839, 2 Vict., c. 13 [hereinafter the "first Copyright of Designs Act 1839"], which expanded the scope of protection under the Calico Printers' Acts 1787 and 1794, and the Designing and Printing Linens Act 1789 to Ireland; and An Act to Secure to Proprietor of Designs for Articles of Manufacture the Copyright of such Designs for a Limited time, 1839, 2 & 3 Vict., c. 17 [hereinafter the "Copyright of Designs Act 1839"].

408 CARTER-SILK & LEWISTON, *supra* note 3, at 28.

Since the enactment of the Copyright of Designs Act 1839, the scope of copyright protection was broadened through piecemeal legislation over the succeeding years.[409] The Copyright of Designs Act 1839 was later repealed by the Ornamental Designs Act 1842[410] and the Utility Designs Act 1843.[411] Both Acts made a clear distinction between ornamental and non-ornamental design protection, although there was some confusion regarding subject-matter in practice.[412] The Ornamental Designs Act 1842 contained a broad range of designs eligible for registration,[413] providing thirteen classes of articles having a different term of protection from one year up to a maximum of three years.[414]

The Utility Designs Act 1843 extended the protection to cover industrial designs having a utilitarian purpose in addition to their ornamental characters: it provided that copyright subsisted in any original or new design in a form of shape or configuration of any article of manufacture for the purpose of utility.[415] As a result, functional designs were eligible for the protections afforded by the design legislation from 1843 to roughly 1925, bearing a resemblance to the protection of petty patents.[416] Case law affirmed that an overlap between the subject-matter of a patent and that of a registered design was permitted. Then, there was an enactment of the Copyright of Designs Act 1850,[417] which introduced provisional registration, resembling the grace period and enabled the protection against copycats.[418] The protectable subject-matter also extended to "Sculpture, Model, Cast or Copy within the protection of the Sculpture Acts."[419] Later, the Design Act 1858 made minor

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409 *See, e.g.*, SYKES, *supra* note 385.
410 An Act to Consolidate and Amend the Laws relating to the Copyright of Designs for Ornamenting Articles of Manufacture, 5 & 6 Vict., c. 100 [hereinafter "Designs Act 1842"].
411 An Act to Amend the laws relating to the Copyright of Designs 1843, 6 & 7 Vict., c. 65.
412 Teilmann-Lock, *Industrial Property*, *supra* note 128, at 410.
413 *See id.* at 5 ("applicable to the ornamenting of any Article of Manufacture, or any Substance, artificial or natural…whether applicable for the pattern, or for the shape or configuration, or for the ornament thereof.")
414 *See, e.g.*, Bently, *The Design/Copyright Conflict*, *supra* note 384, at 182 n.40 (providing details about the Ornamental Design Act 1842).
415 *See* LADDIE, *supra* note 399, at 1870.
416 *Id.* at 1874.
417 An Act to Extend and amend the Acts relating to the Copyright of Designs, 1850, 13 & 14 Vict., c. 104 [hereinafter the "Copyright of Designs Act 1850"].
418 CARTER-SILK & LEWISTON, *supra* note 3, at 31.
419 *Id*.

amendments to the Copyright of Designs Act 1850 Act concerning the term of protection. Foreign entities were also first eligible for obtaining the protection under an amended Act in 1861.

3.2.1.3 From 1875 to 1948

In 1875, the Patent Office, which was established in 1852, began to oversee the registration and protection of designs. The influence of a patent regime, hence, affected changes in both legislative and administrative frameworks. In 1883, the Patents, Designs, and Trade Mark Act 1883 was enacted,[420] and former legislation was all repealed except for the Statute of Monopolies for patents. The protection of industrial designs was obviously influenced by a patent approach: the novelty and originality requirements were the prerequisites for registration. The Act also established the right to claim the priority date for designs applied and obtained in foreign countries and introduced the right to invalidate a design that had not been used within six months of registration in the UK.[421] The term "design" under the Act covered both ornamental and functional designs but sculptures were excluded from the definition. Other notable changes include the cancellation of the provisional registration and the protection of all articles within the class of registration; for example, unauthorized use of the protected design applied to any article within the class constituted an infringement.

There were numerous minor amendments in 1885, 1886, and 1888 before major changes occurred due to the enactment of the Patents and Designs Act 1907.[422] Among the significant changes were the extended term of protection to a maximum of fifteen years and the availability of remedies against unfounded accusations.[423] The Patents and Designs Act was the only legislation dealing with

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[420] An Act to Amend and Consolidate the Law relating to Patents for Inventions, Registration of Designs and of Trade Marks, 1883, 46 & 47 Vict., C. 57 [hereinafter the "PDTM 1883"].

[421] *See* LADDIE, *supra* note 399, at 1877.

[422] An Act to consolidate the enactments relating to Patents A.D. 1907 for Inventions and the Registration of Designs and certain enactments relating to Trade Marks, 1907, 7 Edw. 7, c. 29 [hereinafter the "Patents and Design Act 1907"].

[423] *See* LADDIE, *supra* note 399, at 1879 (describing more comprehensive amendments of the Patents and Design Act 1907).

industrial design protection at the time when there were five Acts related to the protection of purely artistic works.[424]

Another significant development occurred in 1911; the Copyright Act 1911[425] repealed previous copyright laws, transposed the first revision of the Berne Convention, and conferred copyright protection, for the first time, to all forms of artistic works.[426] The Act defined artistic works to include "works of painting, drawing, sculpture and artistic craftsmanship, and architectural works of art and engravings and photograph"[427] Importantly, the Copyright Act 1911 caused considerable overlaps related to industrial design protection, which will be later discussed in 3.2.3.1. In 1919, the Patents and Designs Act 1919 amended the Patents and Designs Act 1907.[428] Important amendments included changing the definition of design:[429] the new statutory definition eliminated the exclusion of sculpture and explicitly excluded functional features from protection.[430]

3.2.1.4 From 1949 to 2000

(i) Registered Designs Act 1949[431]

In 1949, the Registered Designs Act 1949 was enacted as primary legislation dealing with registered design protection in the UK legal framework at that time, separating the protection of registered designs from that of other intellectual property. The Act made several changes, including the term of protection, which was extended to a maximum of twenty-five years from the date of the registration of the design,[432] and the exclusive right to the proprietor of a registered design, which was

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424 *See* CARTER-SILK & LEWISTON, *supra* note 3, at 36.
425 Copyright Act 1911, *supra* note 31.
426 *See* CARTER-SILK & LEWISTON, *supra* note 3, at 36.
427 Copyright Act 1911, *supra* note 31, § 35(1).
428 Patents and Designs Act 1919, 9 & 10 Geo. 5, c. 80 [hereinafter the "Patents and Designs Act 1919"].
429 *See* CARTER-SILK & LEWISTON, *supra* note 3, at 38.
430 *Id*.
431 An Act to consolidate certain enactments relating to registered designs, 1949, 12, 13 & 14 Geo. 6, c. 88 [hereinafter the "Registered Designs Act 1949"].
432 *Id.* § 8 states:

similar to that of a patented invention.[433] The UK system of industrial design protection appeared to be largely based on a patent regime, as evidently seen, for instance, in the implementation of the same administrative procedures by the UK Patent Office.[434] A number of exceptions prescribed in the previous Acts were also available; however, the Registered Designs Act 1949 does not exclude the protection of sculptures. The Registered Designs Act 1949 explicitly excludes from protection designs solely dictated by their technical function,[435] and designs "necessarily be reproduced in their exact form and dimensions so as to permit the product in which the design is incorporated or to which it is applied to be mechanically connected to, or placed in, around or against, another product so that either product may perform its function."[436] Two- and three-dimensional designs are eligible for registration under the Act. To obtain registered design protection, industrial designs must qualify as "design" which means "the appearance of the whole or a part of a product resulting from the features of, in particular, the lines, contours, colours, shape, texture or materials of the product or its ornamentation."[437] Industrial designs must also be new and have an individual character to qualify for registered design protection.[438] These requirements mirror the requirements for the registered Community design. Similar to the EU, the UK registered design right subsists for a period of five years from the registration date: the term of protection can be renewed at five-year intervals, providing a maximum duration of twenty-five years.[439]

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(1) The right in a registered design subsists in the first instance for a period of five years from the date of the registration of the design.

(2) The period for which the right subsists may be extended for a second, third, fourth and fifth period of five years, by applying to the registrar for an extension and paying the prescribed renewal fee.

433 *Id.* §§ 7, 8.

434 The UK Intellectual Property Office [hereinafter the "UK IPO"] became the operating name of the UK Patent Office since Apr. 2, 2007.

435 *Id.* § 1C(1); *see supra* note 278 (providing details about the exclusion as interpreted in the *AMP* case).

436 *Id.* § 1C(2).

437 *Id.* § 1(2).

438 *Id.* § 1(B) (describing details about the novelty and individual character requirements).

439 *Id.* § 8; *see supra* note 432; *see also* Design Regulation, art. 12.

(ii) Copyright Act 1956[440]

The Copyright Act 1956 repealed the Copyright Act 1911 and afforded protection under the two concepts of artistic copyright and industrial copyright. Copyright subsisted in designs without requiring artistic merit, which appeared to be the British concept of design copyright at the time.[441] The notorious § 10 provided that the following cases would not constitute copyright infringement:[442]

> (1) Where copyright subsists in an artistic work, and a corresponding design is registered under the Registered Designs Act, 1949 (in this section referred to as "the Act of 1949"), it shall not be an infringement of the copyright in the work—
>
> (a) to do anything, during the subsistence of the copyright in the registered design under the Act of 1949, which is within the scope of the copyright in the design, or
>
> (b) to do anything, after the copyright in the registered design has come to an end, which, if it had been done while the copyright in the design subsisted, would have been within the scope of that copyright as extended to all associated designs and articles:[443]
>
> (2) Where copyright subsists in an artistic work, and—
>
> (a) a corresponding design is applied industrially by or with the licence of the owner of the copyright in the work, and
>
> (b) articles to which the design has been so applied are sold, let for hire, or offered for sale or hire, and
>
> (c) at the time when those articles are sold, let for hire, or offered for sale or hire, they are not articles in respect of which the design has been registered under the Act of 1949….[444]

Accordingly, § 10 created paradoxical situations where functional designs lacking any aesthetic merit could then be protected by artistic copyright under the Copyright Act 1956, but unregistrable under the Registered Designs Act 1949; and that industrial designs having artistic quality

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[440] Copyright Act 1956, § 3(1)(a) (stating that copyright subsists in any drawing "irrespective of artistic quality").

[441] Iain C. Baillie, *Design Copyright Protection in the UK*, 11 INT'L BUS. LAW. 21 (1983).

[442] Copyright Act 1956, § 10(3) states:

> (a) during the relevant period of 15 years it shall not be an infringement of the copyright in the work to do anything which, at the time when it is done, would have been within the scope of the copyright in the design if the design had, immediately before that time, been registered in respect of all relevant articles; and
>
> (b) after the end of the relevant period of 15 years, it shall not be an infringement of the copyright in the work to do anything which, at the time when it is done, would, if the design had been registered immediately before that time, have been within the scope of the copyright in the design as extended to all associated designs and articles.

[443] *Id*. § 10(1).

[444] *Id.* § 10(2).

were registrable for protection but protectable by "unenforceable industrial copyright."[445] The loss of copyright occurred when designs were exploited industrially or registered under the Registered Designs Act 1949.[446] Put simply, copyrightable industrial designs that obtained registration under the Registered Designs Act 1949 were affected by § 10 concerning the proprietor's rights in industrial designs. The protection caused concern over the adverse effects of competition in the British industries, particularly the field of spare parts.[447] The Copyright Act 1956 was later repealed by the CDPA 1988.

(iii) Design and Copyright Act 1968[448]

In 1968, the Design and Copyright Act 1968 broadened the scope of protection to cover designs that were subject-matter unregistrable under the Registered Designs Act 1949, affording protection to artistic works which were once precluded from protection by § 10 of the Copyright Act 1956 for a period of fifteen years from the date on which the industrial design was first marketed. Industrial designs, hence, could be copyrightable and registrable at the same time, provided they satisfy the protection requirements. Industrial designs, such as shape, patterns, and ornamental features, were registrable for protection up to fifteen years under the Registered Designs Act 1949 and could be protected for the life of the creator plus fifty years *post mortem auctoris* (after the creator's death) in cases where industrial designs also qualified as works of artistic craftsmanship. Furthermore, copyright subsisted in industrial designs derived from prior drawings, although they were not registrable under the Registered Designs Act 1949. The concept of industrial copyright was, therefore, introduced in 1968.[449]

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445 *See* CARTER-SILK & LEWISTON, *supra* note 3, at 42.

446 *See* Christine Fellner, *The New United Kingdom Industrial Design Law International Developments in Industrial Design Law*, 19 U. BALT. L. REV. 369, 377 (1989).

447 Brett S. Sylvester, *The Future of Design Protection in the United States: An Analysis of the Proposed Domestic System in View of Recent Developments in the United Kingdom, New Zealand, and Australia*, 20 J. MARSHALL L. REV. 261, 273 (1987).

448 Design Copyright Act 1968, *supra* note 151.

449 William R. Cornish, *Cumulative Protection for Industrial Designs*, 8 U. BRIT. COLUM. L. REV. 219 (1973).

(iv) CDPA 1988[450]

In 1988, the CDPA 1988 repealed the Copyright Act 1956 and also amended the Registered Designs Act 1949.[451] Significant amendments also include extending the term of protection for a registered design to a maximum of twenty-five years under § 52, which was later repealed in 2016.[452] More importantly, the CDPA 1988 introduced an unregistered design right,[453] which had been harshly criticized by various kinds of stakeholders.[454] The new right was an "attempt to resolve the dilemma of protecting functional designs while avoiding the anticompetitive effects."[455] The CDPA 1988 serves as primary legislation governing design rights in the current UK legal framework.

There are different legal treatments between the protection of three-dimensional designs, such as shape or configuration, and that of two-dimensional designs, such as patterns and ornaments. Under the CDPA 1988, the UK unregistered design right does not afford protection to two-dimensional design since "design right does not subsist in surface decoration."[456] the protection is available to "the shape or configuration (whether internal or external) of the whole or part of an article"[457] for a period of fifteen years "from the end of the calendar year in which the design was first recorded in a design document or an article was first made to the design," [458] whichever occurs earlier. Nevertheless, "if articles made to the design are made available for sale or hire within five years from the end of that calendar year," the design right lasts for "ten years from the end of the calendar year in which that first occurred."[459] Interestingly, anyone is entitled to a license in the last five years of the design right term without infringing the design right.[460] The unregistered design protection arises automatically upon

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450 CDPA 1988, *supra* note 34.
451 *See infra* 3.2.3.2 (describing reasons for the enactment of CDPA 1988).
452 *See infra* note 526.
453 CDPA 1988, *supra* note 34. The Act entered into force on Aug.1, 1989. The preamble provides that a primary objective of the Act is "to confer a design right in original design."
454 *See* Bently, The Design/Copyright Conflict, *supra* note 384 (describing in detail the introduction of an unregistered design right which was published in the Government's White Paper on Intellectual Property and Innovation before the enactment of the law).
455 Fellner, *supra* note 446, at 369.
456 CDPA 1988, § 213(3)(c).
457 *Id.* § 213(2).
458 *Id*. § 216(1)(a).
459 *Id*. § 216(1)(b).
460 *Id*. § 237.

the creation of the original and non-commonplace design.[461] Another requirement for protection is that a design must be recorded in a design document or "an article has been made to the design."[462] The proprietor of unregistered designs has the exclusive right to "reproduce the design for commercial purposes—(a) by making articles to that design, or (b) by making a design document recording the design for the purpose of enabling such articles to be made."[463] The unregistered design right provides the proprietor with the right to prohibit copying the design, as opposed to the monopoly rights conferred by registered design protection. In this regard, the alleged infringer can claim an independent creation defense to escape liability, as in the case of copyright.

As for the relationship with copyright, the CDPA 1988 explicitly provides an exception to design rights as follows:

> Where copyright subsists in a work which consists of or includes a design in which design right subsists, it is not an infringement of design right in the design to do anything which is an infringement of the copyright in that work.[464]

An infringement of copyright with regard to an artistic work includes "the making of a copy in three dimensions of a two-dimensional work and the making of a copy in two dimensions of a three-dimensional work."[465] Industrial designs qualifying as artistic works enjoy copyright protection which "expires at the end of the period of 70 years from the end of the calendar year in which the author dies."[466]

As regards functional features, design rights do not subsist in the subject-matter as follows:

> (a) a method or principle of construction,
> (b) features of shape or configuration of an article which—
> (i) enable the article to be connected to, or placed in, around or against, another article so that either article may perform its function, or
> (ii) are dependent upon the appearance of another article of which the article is intended by the designer to form an integral part.[467]

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461 *Id*. §§ 213(1), 213(4).
462 *Id*. § 213(6).
463 *Id*. § 226(1).
464 *Id*. § 236.
465 *Id*. § 17(3).
466 *Id*. § 12 (2).
467 *Id*. § 213(3).

Unlike registered design protection, there is no exclusion precluding designs solely dictated by technical function.[468] Moreover, unlike unregistered Community design protection, there is a requirement of being a "qualifying person" to benefit from the UK unregistered design right. A qualifying person includes 1) an individual citizen or habitual resident of the UK or a qualifying country,[469] and 2) a legal entity formed under the law of the UK or a qualifying country and "has in any qualifying country a place of business at which substantial business activity is carried on."[470] The designer, defined as the person who creates the design,[471] is "the first owner of any design right in a design.[472] Whereas an "employer is the first owner of any design right in the design" created by an employee in the course of his or her employment.[473]

As investigated above, the UK legal framework related to industrial design protection had been a patchwork and developed in a piecemeal fashion.[474] The implementation of the Design Directive added a further complication to the protection of industrial designs in the UK, as will be examined in the following sections.

3.2.2 After the Implementation of the Design Directive: From 2001 to Brexit[475]

As a member of the EU, the UK was obliged to transpose the Design Directive by October 28, 2001.[476] The UK fulfilled its obligation by promulgating the Registered Design Regulations 2001 on December 9, 2001.[477] The UK also altered its regulatory frameworks related to industrial design protection in conformity with the Design Directive, repelling incompatible rules such as the term of

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468 Registered Design Act 1949, *supra* note 431, § 1C(1).
469 *See* The Design Right (Reciprocal Protection) (No. 2) Order 1989 (SI 1989/990), available at https://www.legislation.gov.uk/uksi/1989/1294/made (last visited May 15, 2021).
470 CDPA 1988, *supra* note 34, § 217(1).
471 *Id*. § 214(1).
472 *Id*. § 215(1).
473 *Id*. § 215(2).
474 *See, e.g.*, PROFESSOR IAN HARGREAVES, *Digital Opportunity: A review of Intellectual Property and Growth* 130 (2011) at 64.
475 "Brexit" is an abbreviation for the term "British exit."
476 Design Directive, *supra* note 39, art. 19(1) (stating that the deadline for implementation was no later than Oct. 28, 2001).
477 *See* Registered Design Regulations 2001, *supra* note 42; *see also* the Registered Designs Regulations 2003 (S.I. 2003/550), which was issued to amend its legislation in relation to the Design Directive and came into force on April 1, 2003.

copyright protection for works of artistic craftsmanship.[478] In addition to the aforementioned legislation, the Intellectual Property Act 2014 further improved and simplified industrial design protection in several aspects, including[479] 1) the introduction of criminal offenses for infringement of registered design rights;[480] 2) that a designer owns any design right in the design, not the commissioner of the work unless otherwise stated in a contract;[481] and 3) the introduction of unregistered design right exceptions, such as private and non-commercial acts and acts done for experimental and teaching purposes, for instance.[482] After the transposition of the Design Directive, the UK protected industrial designs by at least five legal rights: unregistered Community design rights, registered Community design rights, UK unregistered design rights, UK registered design rights, and copyright.[483]

In March 2017, the UK government notified the intention to leave the EU after 47 years of membership.[484] The UK officially left the EU on January 31, 2020; however, the EU legislation continued to be effective until the end of the transitional period on December 31, 2020, and new rules are applied from January 1, 2021. Post-Brexit, there are some changes in the relationship between design and copyright protection since the UK is no longer obliged to abide by the EU Community Design legislation or the CJEU decisions.[485] In other words, after the end of the transitional period, Community design rights are no longer effective in the UK; however, UK registered design rights and unregistered design rights are available for industrial design protection. An unregistered Community design right has become invalid starting from January 1, 2021 and has automatically been replaced by UK unregistered design right for the remaining of the three years. Additionally, following the effect, the UK established an unregistered design right called "supplementary unregistered design" [hereinafter "SUD"], the protection of which is similar to the unregistered Community design protection but valid only in the UK. Unlike the UK unregistered design, the SUD is available for both

478 *See supra* 3.2.3.2 (describing in detail the repeal).
479 Intellectual Property Act 2014, c. 18 [hereinafter the "UK Intellectual Property Act 2014"].
480 *Id*. § 13.
481 *Id*. § 2.
482 *Id.* § 4.
483 *See, e.g.*, CARTER-SILK & LEWISTON, *supra* note 3 at 6.
484 The UK joined the European Economic Community (EEC) in 1973 and the EU in Nov. 1993.
485 *See, e.g.*, *Flos*, *supra* note 299 (affecting the UK decision to repeal § 52 of the CDPA 1988).

two- and three-dimensional designs. The term of the protection lasts only for three years from the first disclosure that must occur in the UK.[486] In 2018, the UK became a party to the Hague Agreement, enabling a single international application filed for design protection in several jurisdictions.[487]

At present, the UK legal framework related to industrial design legislation appears to have become less of the labyrinth formerly described before Brexit. The primary legislation governing industrial design protection includes the Registered Designs Act 1949, as a basis for the UK registered design rights,[488] and the CDPA 1988 as a basis for UK unregistered design rights.[489] The CDPA 1988 also relates to copyright protection available for industrial designs in some instances as examined earlier and reviewed in the following section.

3.2.3 The Interface between Design and Copyright for Industrial Design Protection in the UK

This section divides the period of cumulation between design and copyright protection into two main periods: 1) from 1787: the beginning of cumulative protection and 2) from 1968 to the present: on the path towards full cumulation.

3.2.3.1 From 1787: The beginning of cumulative protection

(i) Before the enactment of the Copyright Act 1911

At an early stage of the legislative development related to industrial design protection, overlaps between industrial design and copyright protection existed quietly throughout 1787 to 1911.[490] For example, the statutory definition of design in the Ornamental Designs Act 1842 caused

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[486] *Guidance: Changes to unregistered designs*, GOV.UK (Jan. 30, 2020), https://www.gov.uk/guidance/changes-to-unregistered-designs.

[487] The UK joined the Geneva Act on June. 13, 2018, issuing the Designs (International Registration of Industrial Designs) Order 2017.

[488] *See supra* 3.2.1.4(i) (providing details about UK registered design protection).

[489] *See supra* 3.2.1.4(iv) (providing details about UK unregistered design protection).

[490] Bently, *The Design/Copyright Conflict*, *supra* note 384, at 171 (describing the period as "quiet co-existence").

an overlap concerning the protection of shape or configuration of the subject-matter protectable under the Sculpture Copyright Act 1814. In this regard, the Ornamental Designs Act 1842 dealt with the overlap by excluding the subject-matter protectable under the Sculpture Copyright Act 1814 from protection;[491] certain exceptions were later available for concurrent registration regarding sculptures from 1850 to 1883.[492]

Cumulative protection did not raise serious concern at the time during which there was only the Patents and Designs Act 1907 dealing with industrial design protection and five laws dealing with the protection of purely artistic works: the Engraving Copyright Acts 1734 and 1767; the Prints Copyright Act 1777; the Sculpture Copyright Act 1814: and the Fine Arts Copyright Act 1862.[493] Possible overlaps could occur for drawings and works of sculpture. For drawings, an overlap occurred when they were drawings of useful articles, and both were qualified for protection under the Fine Arts Copyright Act 1862 and the Patents and Designs Act 1907.

The UK regulated cumulative protection by stipulating an explicit provision to exclude sculptural works from the protection under the Patents and Designs Act 1907 since this category of works would also be protectable under the Sculpture Copyright Act 1814. The overlap, however, was not problematic because eligible subject-matter under both Acts was narrowly defined and an infringement generally occurred from the reproduction of the original medium of work registered.[494] Only subject-matter protectable under the Sculpture Copyright Act 1814 and the Patents and Designs Act 1907, defined as "sculpture and designs applied to an article of manufacture or substances," could constitute an infringement.[495] It seemed to be the case that the broader the subject-matter, the wider the chance of overlaps.

Another important reason for the less occurrence of overlaps was the court's interpretation placing a further limit to the only protectable subject-matter of the same kind.[496] The adopted approach

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491 ALAN D. RUSSELL-CLARKE, COPYRIGHT IN INDUSTRIAL DESIGNS (4th ed. 1968).
492 *See* SYKES, *supra* note 385, at 4.
493 *See* RUSSELL-CLARKE, *supra* note 491, at 92.
494 *Id. at* 93.
495 *Id.*
496 *See e.g.*, Dicks v. Brooks (1880) 15 Ch. 22 (denying infringement of the printing applied to Berlin wool).

appeared contradictory to the law providing that it was an act of infringement to copy in any other manner."[497] In this regard, the court mainly reasoned that it would not be the intention of the legislature to extend the scope of protection to a different category of works.[498] The legislative intent was claimed again in a case where the court held that no infringement occurred in the production of painting in the form of a tableau vivant.[499] The court reasoned that it was not the legislative intent "to limit the scope of a sculptor's business, or of an actor's business. It was to protect painters and persons who produced drawings and photographs from having the commercial value of their productions impaired by the reproduction of something of a character similar to that of which they were the authors."[500] There was a copyright infringement of a print being reproduced in a new form of a photograph. [501] The standard for infringement then would be that if the original work was reproduced in a different medium, such as a useful article, it was often the case that there would be no infringement. Hence, the interface between industrial design and copyright protection during the period prior to the Copyright Act 1911 could be described as limited and reserved.

(ii) After the enactment of the Copyright Act 1911

Cumulative protection increasingly became a vexed issue after the implementation of the Copyright Act 1911,[502] under which an industrial design could receive copyright protection as an artistic work in addition to the protection under the Patents and Designs Act 1907. This was the time during which cumulative protection between copyright and design laws occurred more prominently. Under the Copyright Act 1911, causes of cumulation included the scope of subject-matter encompassing works of artistic craftsmanship as well as the term "reproduction," which covered "in any material form." A conversion of a two-dimensional design into a three-dimension design could

497 *See* RUSSELL-CLARKE, *supra* note 491, at 93.
498 *See id*. (The court stated that "it is a work of the different class, intended for a different purpose… I cannot conceive that such a reproduction of the subject in tapestry, or Berlin wool, or upon China, or in earthenware, it is within the meaning of the Act of Parliament.").
499 Hanfstaengl v. Empire Palace (1894) 2 Ch. 1.
500 *See* RUSSELL-CLARKE, *supra* note 491, at 94.
501 Graves v. Ashford (1867) 2 C.P.410; *see id*. n.10.
502 *See* Copyright Act 1911, *supra* note 31.

constitute a reproduction.[503] In essence, the Copyright Act 1911 allowed cumulation between copyright and registered design protection; however, § 22 of the Act prohibited concurrent protection for registrable designs "intended to be used as models or patterns to be multiplied by any industrial process."[504] The provision expressly adopted non-cumulation of design rights and copyright for industrial designs as prescribed in § 22. A landmark case related to the interpretation of § 22 was *King Features v. Kleeman*,[505] wherein the court held that § 22 did not apply to this case since from the point of creation, there was an absence of use or intention to use the work for multiple reproductions by an industrial process. Thus, copyright protection for drawings of the "*Popeye*" character was not lost by § 22 due to the said court's interpretation. Even though there was later a grant of license for multiple reproductions, copyright protection of the work was not lost.[506] The ruling caused concern about the possibility that cumulative protection would continue to exist for subject-matter fallen out of the registered protection system.[507]

(iii) After the enactment of the Copyright Act 1956

The period of non-cumulation by the statutory provision continued to exist after the Copyright Act 1956 later repealed the Copyright Act 1911. Still, it retained the same prohibition in §10, precluding industrial designs from copyright protection under some circumstances. The interpretation of § 10 caused a disturbance to the transition and led to an amendment by the Design Copyright Act 1968.[508] The critical element connecting both copyright and design protection is the eligibility of "artistic work." Under the Copyright Act, the term "artistic work" encompassed drawing, painting, sculpture, artistic craftsmanship, and architectural works of art and engravings and photographs.[509]

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503 Cornish, *supra* note 449 at 225 (pointing out that it achieved a purpose of the Artistic Copyright Society in promoting an Artistic Copyright Bill which defined the term "reproduction" as such).

504 SYKES, *supra* note 385, at 4; the Copyright Act 1911, § 22(1) provided that copyright did not subsist in "designs capable of being registered under the Patents and Designs Act 1907."

505 King Features Syndicate, Inc. v. O & M Kleeman, Ltd. [1941] AC 417 [hereinafter "*Popeye*"].

506 The defendant was denied a license to import Popeye toys from the UK to Japan.

507 *See* Bently, *The Design/Copyright Conflict*, *supra* note 384, at 202.

508 Design Copyright Act 1968, *supra* note 151.

509 The definition of eligible designs laid down in the Copyright Act 1911 and Copyright Act 1956 was mostly the same.

For the category of "drawings," the definition of what constituted a drawing was rather broad. A drawing of a useful article, thus, was protectable under both Acts. Two-dimensional drawings subsequently converted into industrial designs would then receive protection under the Design Act. However, no clear distinction was made as regards what kind of a drawing qualified as a registrable design. All sculptures were qualified to be eligible designs under the definition laid down in the Designs Act and thus had more possibility for overlaps. In contrast, paintings, engravings, and photographs were not qualified as eligible designs but merely copies of the designs, which could constitute an infringement. Works of architecture, including buildings or models of buildings together with garden architecture, were considered a structure in which copyright subsisted. Generally, buildings would not be protected as designs, while movable structures industrially applicable were considered designs.

Arguably, the most contentious category would be "works of artistic craftsmanship" since what constitutes the work is open to interpretation.[510] In principle, the work must satisfy the originality requirement and have the craftsmanship to be copyrightable. For example, in *Burke and Margot Burke, Ltd. v. Spices Dress Designs*,[511] the court denied a claim that the work, a frock, was an original work of artistic craftsmanship because "the artistic element did not originate in those who made the work,"[512] even though the court recognized that the work had the originality of the craftsmanship. The work was regarded as a work of craftsmanship if it consisted of an act of craftsmanship, but whether the work qualified as a work of artistic craftsmanship depended on the artistic element. The court reasoned that the artistic element was not originated in the work of people as they merely performed the duty; it was instead the mechanical processes that produced the work. The court further noted that "they are craftswomen, but they were not artistic craftswomen." The court also pointed out the definition of "artistic" in the Oxford English Dictionary, defining the meaning as "which pertaining to an artist," and the term "artist" was described as "one who cultivated one of the fine arts in which the object is mainly to gratify the aesthetic emotions by the perfection of execution whether in creation or

[510] *See supra* 2.1.2 (discussing the term "works of artistic craftsmanship").
[511] Burke & Margot Burke Ltd. v. Spicers Dress Design [1936] Ch 400.
[512] *See* RUSSELL-CLARKE, *supra* note 491, at 91.

representation."[513] The court, then, held that the work was not copyrightable because it was not a work of artistic craftsmanship.

3.2.3.2 From 1968: On the path towards full cumulation

A partial cumulation between copyright and design legislation could be acknowledged after the enactment of the Design Copyright Act 1968, extending the period of copyright protection to fifteen years, equal to the period of protection for a registered design.[514] The British Parliament permitted the co-existence between the registered design and copyright protection. An artistic work registrable under the Registered Designs Act 1949 was no longer precluded from copyright infringement and also protected for the fifteen-year term of industrial copyright under the Design Copyright Act 1968. Accordingly, the proprietor of an industrial design had two available options, registered design and copyright protection, to protect their work. The dual protection caused a decline in the number of design registrations during an economic downturn.

Moreover, there was a peculiar situation where industrial designs were copyrightable, although they were unregistrable designs.[515] Under the Design Copyright Act 1968, copyright would subsist in functional designs for the life of the creator and expire at the end of the fifty-year *post mortem auctoris* term, whereas those designs were unregistrable for the fifteen-year protection under the Registered Designs Act 1949.[516] Functional aspects did not affect copyright in designs that attracted artistic copyright for the life of the creator plus fifty years *post mortem auctoris*. Many drawings for functional designs were copyrightable not for the fifteen-year industrial copyright but for the longer term of protection under the Design Copyright Act 1968. Consequently, the cumulation

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513 *See id*. at 91-92.
514 *See* Design Copyright Act 1968, *supra* note 151 (amending § 10 of the Copyright Act, 1956).
515 *See* Bently, *The Design/Copyright Conflict*, *supra* note 384.
516 *See*, *e.g.*, Dorling v. Honnor Marine Ltd [1964] RPC 160, [1965] Ch 1 (holding that an unregistrable design was not subject to § 10 but could qualify for the full copyright protection); *see also* Bently, *The Return of Industrial Copyright*, *supra* note 310 (describing in detail the situation of "industrial copyright" in the UK).

permitted under the Design Copyright Act 1968 led to a paradoxical situation raising concerns over the "economically undesirable effects."[517]

In 1977, a critical document known as the "Whitford Report"[518] provided an in-depth analysis of industrial design protection in the UK and "was an important watershed in the history"[519] of the British design legislation. The Whitford Report offered valuable proposals to enhance design law and resolve conflicts over the protection of industrial designs. Significant issues discussed in the Whitford Report included the unsettled relationship between the Copyright Act 1956 and Registered Designs Act 1949, which resulted in the reform of the industrial design protection regime by amending the Registered Designs Act 1949 and establishing an unregistered design right under the CDPA 1988.[520]

The enactment of the CDPA 1988 enables three types of industrial design protection in the UK: copyright, registered design, and unregistered design protection. Each right has different purposes of protection, albeit the existence of overlaps. An industrial design qualified as an artistic work is eligible for copyright protection. If the aesthetic appearance of an industrial design has eye appeal, registered design protection is also available. The shape or configuration of an industrial design, irrespective of being aesthetic or functional, is eligible for unregistered design protection.[521] Nonetheless, there are some boundaries between copyright and unregistered design rights: the CDPA 1988 regulates cumulation of both rights in a manner precluding the rightsholders from claiming both copyright and unregistered design infringement. The CDPA 1988 provides that it is not an infringement of design right when there is an infringement of copyright for a work in which copyright and design right subsist.[522] Moreover, it is not an infringement of copyright in "a design document or model recording or embodying a design for anything other than an artistic work or a typeface to make

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517 Cornish, *supra* note 449, at 242.

518 Gerald Dworkin, *The Whitford Committee Report on Copyright and Designs Law*, 40 MOD. L. REV. 685 (1977).

519 *See* CARTER-SILK & LEWISTON, *supra* note 3, at 43.

520 *See, e.g.*, SYKES, *supra* note 385.

521 CDPA 1988, § 213(2) ("In this Part "design" means the design of ... the shape or configuration (whether internal or external) of the whole or part of an article.").

522 *Id.* § 236 ("Where copyright subsists in a work which consists of or includes a design in which design right subsists, it is not an infringement of design right in the design to do anything which is an infringement of the copyright in that work.").

an article to the design or to copy an article made to the design."[523] Under § 51, the reproduction of a three-dimensional work does not constitute an infringement of copyright of a two-dimensional work which is a design document. For instance, there can be an indirect infringement of the copyright in the design document, which is a graphic work. Put simply, only design right covers cases where, for instance, there is a copying of an article made to a design; copyright does not cover the derivative work of the document. The demarcated line clarifies what was previously obscured in the past about the relationship between two- and three-dimensional designs and copyright protection.[524]

A stepping-stone toward full cumulation is the implementation of the Design Directive, which also marked the end of non-cumulation for registered design right since EU Member States must not preclude cumulation between the registered design and copyright protection. The Design Directive explicitly sets out that Member States may choose to adopt full cumulation or partial cumulation but cannot exclude designs from copyright protection.[525] In addition, the landmark case of *Flos* had a ripple effect toward repealing § 52 of the UK CDPA 1988.[526] The provision contravened with the Design Directive since it provided a restricted term of copyright protection to twenty-five years for artistic works that were industrially manufactured: more than fifty copies of articles. The amendment eliminated the restriction and extended the term of copyright protection to the creator's lifetime plus seventy years as equally applied to the term of copyright protection for artistic works.[527] The

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[523] *Id.* § 51(1) ("It is not an infringement of any copyright in a design document or model recording or embodying a design for anything other than an artistic work or a typeface to make an article to the design or to copy an article made to the design."); *see also id.* § 51(3) which states:

> In this section—
>
> "design" means the design of ...the shape or configuration (whether internal or external) of the whole or part of an article, other than surface decoration; and
>
> "design document" means any record of a design, whether in the form of a drawing, a written description, a photograph, data stored in a computer or otherwise.

[524] *See supra* notes 496 & 499.

[525] *See* Design Directive, *supra* note 40, art. 17.

[526] The repeal became effective on July 28, 2016; *see* UK IP Office, *Repeal of Section 52 of the Copyright, Designs and Patents Act 1988: Guidance for affected individuals, organisations and businesses*.

[527] *See* Bently, *The Return of Industrial Copyright*, *supra* note, at 310 (discussing in detail § 52 and disagreeing on the repeal); *see also* Teilmann-Lock, *Industrial Property*, *supra* note 128, at 415 (noting that the repeal of § 52 may "revive problems with design copyright that § 52 was meant to resolve.").

unrestricted term of copyright protection for industrial designs, thus, brought full cumulation to fruition in the UK.[528]

3.2.4 Conclusion

The interface between design and copyright protection for industrial designs in the UK has been through legislative developments from the first industrial revolution to the present day. As a pioneer in the field of industrial design law, the UK has long experience in dealing with thorny problems related to industrial design protection. Both British Parliament and courts have handled several paradoxical situations regarding industrial design protection by means of amending and enacting legislation. The changing positions between design and copyright interface did not stem from only the changing landscape related to the protectable subject-matter but also the ascendency of interested parties. Subsequently, many pieces of legislation were enacted in a piecemeal fashion, segmenting industrial designs into many categories of the protectable subject-matter under different laws; overlapping protection, therefore, inevitably occurred. The labyrinth of legislation related to industrial design protection became very conspicuous after implementing the Design Directive, although the cumulation with copyright protection was not much affected by it. After *Flos*, the UK government later decided to repeal a provision deemed to contravene with the Design Directive, equating the period of protection of industrial art with that of artistic works. Post-Brexit, the Community design protection regime is no longer enforceable in the UK,[529] leaving fewer alternatives to protect industrial designs.

3.3 The US Experience

This part investigates the US legal framework related to industrial design protection since the US adopted a design patent regime as the primary legal means for protecting industrial designs, as in

[528] Post Brexit, a new right "supplementary unregistered design right" is also available, which confers protection for more subject-matter; *see supra* 3.2.2.

[529] *See supra* 3.2.2 (providing further information on the UK design protection post-Brexit).

Thailand. The Thai legal framework related to industrial design protection has been, to some extent, influenced by the US, although there are some differences, for example, in the requirements for protection, between the systems of the two countries. The US also implemented the separability doctrine, which concerns the copyrightability of industrial designs, as discussed later in 3.3.3.2. The following part first explores the historical background of the US legal framework related to industrial design protection in 3.3.1, examines the current design patent law in 3.3.2, and analyzes the interface between design patent protection and copyright protection in 3.3.3.

3.3.1 Historical Background in Brief: The Origin of the US Design Patent Law

The legislative development of industrial design protection in the US dates back to 1842 when the first design patent Act was enacted.[530] Prior to 1842, there was no legislation protecting industrial design having aesthetically pleasing elements. The absence of adequate legal protection for industrial designs created a problem of free-riding in the US. The government was under pressure from manufacturing industries to provide intellectual property protection for useful three-dimensional articles, which, at the time, did not qualify for copyright protection. For example, a lobbyist named Jordan L. Mott, an influential American inventor in cast-iron manufacture, strongly advocated for industrial design protection since he desired to secure protection for his inventions, such as stoves possessing aesthetic elements different from the common stoves available in the market.[531] It was Mister Mott who, in 1841, petitioned Congress to initiate legal measures in combatting piracy and promoting the US industrial design abroad.

The draft of copyright-like protection was later proposed but failed to reach the final stage. It was contested by Henry Ellsworth, who served as the Patent Office's first Commissioner and was a strong proponent of a patent regime for industrial design protection. He was able to persuade Congress to establish an industrial design protection regime by means of patent law; his proposal was

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[530] Act of August 29, 1842, 5 Stat. 543.

[531] MARGHERITA FARINA, FROM TRANSATLANTIC TO EASTERN ASIA: IS INDUSTRIAL DESIGN CONVERGING?: THE EU AND THE US LAWS AND POLICIES, AS OPPOSED TO THE CHINESE AND JAPANESE APPROACHES - A FASHION INDUSTRY FOCUS 97 (2016).

successfully presented and embedded in the first US Patent Act 1842.[532] The politics inescapably influenced the decision to protect industrial designs through a patent regime, although the primary aims were to prevent free-riding and promote the US industrial designs in the trading sphere. Some literature regarded the decision to be a "historical accident," noting that the decision to protect designs under the US patent regime stemmed from "the Commissioner's suggestion and the lack of a central copyright system for registration and deposit."[533]

Since 1842, the US Congress has protected industrial designs under patent law, while the protection of utility patents was introduced earlier in 1790. Under the Patent Act 1842, new and original fine and useful arts applied to or embedded in an article could obtain design patent protection. The Act, for the first time, acknowledged the patentability of ornamental features for decorating tangible mediums, which were mostly industrial products. The first design patent issued on November 9, 1842, was for an ornamental design of a new typeface invented by George Bruce.[534] Even though the purpose of the Design Patent Act was to incentivize the production of superior designs in decorative arts, it did not compromise legal requirements for industrial design protection due to the high threshold standards of patent law. In 1861, there were amendments to the 1842 Act, including repealing the product-specific category of "new and original design[s] for the printing of woolen, silk, cotton or other fabrics," and changing the term of protection from "a fixed seven-year term to a three-and-half, seven, or fourteen-year term."[535]

The enactment of the Design Patent Act 1870 consolidated the Acts of 1842 and 1861. There were numerous revisions of design patent legislation prior to the Patent Act of 1952, 35 U.S.C. Chapter 16. In 1887, a provision concerning the liability to design patent infringement was added to the Design

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[532] *See* Report from the Commissioner of Patents: Showing the Operation of the Patent Office During the year 1841, S.Rep.No.169,2 (1842). Note that the Patent Act, also known as the US first design law, was enacted on Aug. 29, 1842.

[533] Jason Du Mont, *A Non-Obvious Design: Reexamining the Origins of the Design Patent Standard*, 45 GONZ. L. REV. 531, 543 (2009) [hereinafter "Du Mont, *A Non-Obvious Design*"] (citing 2 STEPHEN P. LADAS, PATENTS, TRADEMARKS, AND RELATED RIGHTS: NATIONAL AND INTERNATIONAL PROTECTION, 830 (1975)).

[534] *See Google Patents*, USD1S, https://patents.google.com/patent/USD1 (last visited Dec. 20, 2018).

[535] Du Mont, *A Non-Obvious Design*, *supra* note 533, at 547.

Patent Act.[536] The provision was influenced by the Act to Consolidate and Amend the Laws relating to Copyrights of Designs for Ornamenting Articles of Manufacture as well as the US Supreme Court decision in the case of *Dobson v. Hartford Carpet Co*. [537] in which the court awarded the total profit received during the time while infringement occurred as the liability of the infringers of a design patent.[538]

The US had attempted to promulgate a sui genesis design law since 1914.[539] In 1976, there was a draft of sui generis design law, Title II of the General Revision Bill, but it ultimately failed to be in the final proposed bill.[540] The Semiconductor Chip Protection Act of 1984 [hereinafter the "SCPA"][541] was the first sui generis legislation protecting chip manufacturers in the US and foreign countries, providing protection against piracy. In 1998, Congress passed the Vessel Hull Design Protection Act [hereinafter the "VHDPA"],[542] as part of the Digital Millennium Copyright Act of 1998.[543] The VHDPA was the US sui generis industrial design law aimed to protect original designs of vessel hulls for their ornamental and utilitarian features. The sui generis protection lasts for ten years from the publication of the registration or the date the design was first made public.[544] The Copyright Office administers a design registration under the VHDPA which has been criticized for being underutilized by the relevant industries.[545] Aside from the previously mentioned sui generis laws, the US has not succeeded in proposing a sui generis law for industrial design protection in place of the design patent law. As Afori describes, "in the US, the industrial design law is completely stagnate, while other intellectual property fields are constantly developing to adapt to ongoing

536 Frederic H. Betts, *Some Questions under the Design Patent Act of 1887*, 1 YALE L.J. 181 (1892).
537 Dobson v. Hartford Carpet Co., 114 U.S. 439 (1885).
538 The fact of the case concerns a design patent for carpets that had been infringed by the defendants.
539 GRAEME B. DINWOODIE & MARK D. JANIS, TRADE DRESS AND DESIGN LAW 527 (2010) [hereinafter "DINWOODIE, TRADE DRESS AND DESIGN LAW"].
540 *See* Reichman, *Design Protection and the New Technologies, supra* note 7, at 10.
541 17 U.S.C. §§ 901-914 (1988 & Supp. 11 1991).
542 17 U.S.C. §§ 1301-1332 (1998). The VHDPA came into effect on Oct. 28, 1998.
543 *See generally*, Bradley J. Olson, *The Vessel Hull Design Protection Act of 1998: is it still afloat?*, 1 J. INTELL. PROP. L. & PRAC. 732 (2006).
544 17 U.S.C. § 1304; *see id*. at 734.
545 Olson, *The Vessel Hull*, at 739.

technological and cultural developments."[546] The patent-like regime remains as the primary means for the protection of industrial designs in the US for almost one hundred and eighty years.

3.3.2 Current Legal Framework under Design Patent Law: Design Patentability Requirements

This section investigates the current protection of industrial designs under US design patent law which are laid down in Chapter 16 of the Patent Act.[547] In the US, a design patent protects an industrial design for the ornamental features as opposed to an invention patent which protects the functional features of an article or process.[548] Trademark protection is also available for industrial designs qualified as subject-matter of trademark, which are, for instance, two-dimensional designs for two-dimensional marks and three-dimensional designs for shape marks.[549] To be protected under trademark law, the designs must be non-functional[550] and satisfy the standard of distinctiveness as further interpreted by the US Patent and Trademark Office [hereinafter the "USPTO"].[551] The overall appearance of industrial designs, such as shape and the combinations of two-dimensional designs consisting of colors, graphics, and texture, for instance, can also be protected for unregistered trade dress rights under the Lanham Act.[552] The US trade dress encompasses product designs and product packaging, protecting inherently distinctive designs or designs that later acquire distinctiveness, for instance, through marketing success.[553] The great advantage of trade dress is that there is no registration required for protection which can last indefinitely. It is a common practice to obtain design

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546 Afori, *Reconceptualizing Property in Designs*, *supra* note 129, at 1107.
547 35 U.S.C. §§ 171-73.
548 *See* 35 U.S.C. § 101 ("Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor.").
549 *See* Jay Jr. Dratler, *Trademark Protection for Industrial Designs*, 1988 U. ILL. L. REV. 887 (1988) (discussing in detail trademark protection of industrial designs); *see also* Sears, Roebuck & Co. v. Stiffel Co., 376 U.S. 225 (1964); Compco Corp. v. Day-Brite Lighting, Inc., 376 U.S. 234 (1964) (holding that in relation to industrial designs, federal patents preempt state trademark protection).
550 15 U.S.C.A. § 1052(e)(5).
551 15 U.S.C. § 1127.
552 *See* Lanham Act, § 43(a), 15 U.S.C. § 1125(a).
553 *See* Two Pesos, Inc. v. Taco Cabana, Inc., 505 U.S. 763, 775 (1992) (holding that inherently distinctive trade dress can be protected under the Lanham Act, § 43(a) without having to acquire a secondary meaning).

patent protection before the design is eligible for trade dress protection.[554] Another desirable alternative is to protect industrial designs under copyright law, but case law shows that it is not an easy route, as will be explored in 3.3.3.[555]

The most relevant system in the US for the topic of this dissertation is the protection of industrial designs under the US design patent law. Design patentable subject-matter is prescribed in 35 U.S.C. § 171(a), which states:

> whoever invents any new, original and ornamental design for an article of manufacture may obtain a patent therefore, subject to the conditions and requirements of this title.[556]

The US patent law does not clearly provide for design patentable subject-matter since § 171(a) merely stipulates that protectable subject-matter must be "any new, original and ornamental design for an article of manufacture." Subject-matter eligible for design patent protection must be a design applied to or embodied in an article of manufacture.[557] What constitutes an "article of manufacture" sparked off debates among US scholars.[558] The term first appeared in the British Design Registration Act 1839 to refer to the subject-matter protectable under the Act. In essence, design patentable subject-matter may be in these three forms: three-dimensional shape or configuration,[559] two-dimensional

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554 *See generally* DINWOODIE, TRADE DRESS AND DESIGN LAW, *supra* note 539 (discussing in detail trade dress and design law in the US).

555 *See infra* 3.3.3.2 (discussing the separability doctrine adopted by the US courts).

556 *See* 35 U.S.C. § 171(a); *see also id.* § 171(b) ("The provisions of this title relating to patents for inventions shall apply to patents for designs, except as otherwise provided."); §§ 102, 103 (stipulating conditions for patentability: novelty and non-obvious subject-matter).

557 *See In re* Zahn, 617 F.2d 261, 204 (C.C.P.A. 1980) ("[35 U.S.C.] 171 refers, not to the design of an article, but to the design for an article, and is inclusive of ornamental designs of all kinds including surface ornamentation as well as configuration of goods.").

558 *See* Sarah Burstein, *The "Article of Manufacture" in 1887*, 32 BERKELEY TECH. L.J. 1 (2017) (discussing in detail the definition of the term "article of manufacture"); Sarah Burstein, *The Article of Manufacture Today*, 31 HARV. J. L. & TECH. 781 (2018) (discussing the interpretation of "article of manufacture" with respect to patent infringement). *See also* Samsung Electronics Co. v. Apple Inc., 137 S. Ct. 429 (2016) (discussing the article of manufacture in connection with damages. The court interpreted the term "article of manufacture" broadly to cover not only the whole product but also its component parts. Consequently, there are more opportunities for patent damages based on the sub-components).

559 *Id.* Burstein, *The Article of Manufacture Today*, *supra* note 558, at 563 (noting that the term "shape" and "configuration are used as synonyms in the US design law").

surface ornamentation, and a combination of both forms.[560] The surface ornamentation includes "any indicia, contrasting color or materials, graphic representations .... applied to the article."[561]

According to § 171(a), there are three legal requirements for design patentability: novelty, originality, and ornamentality.[562] In addition to these requirements, the non-obviousness is also a design patent requirement pursuant to 35 U.S.C. § 103, which applies to design patents as a result of the catch-all provision in § 171(b).[563] The non-obviousness requirement applied to design patents causes trouble obtaining design patent protection for industrial designs possessing incremental innovation.[564] The criterion of non-obviousness requires that the subject-matter differs from what already existed before; and that the differences were not obvious to a person skilled in the art at the time a design patent application is filed.

For satisfying the novelty requirement, there must not be identical designs applied to or embodied in the same kind of article "patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date."[565] The claimed designs cannot be substantially similar to the prior art, and the point of novelty is assessed by ordinary observers. The applicant who first files a patent application also has priority over the person who first created the design.[566] As for the originality requirement, an industrial design must be original in the sense that the designer independently creates the protectable subject-matter, which does not necessarily have to have the creativity required under copyright law.[567]

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560 *See* US PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 1504.01 (9th ed. June. 2020) [hereinafter "MPEP"] (describing design patentable subject-matter in detail).

561 *Id*. § 1503.02(IV).

562 Aside from the statutory criteria, the judicial established rules which further interpreted § 171, also apply as requirements.

563 35 U.S.C. § 171(b) ("the provisions of this title relating to patents for inventions shall apply to patents for designs, except as otherwise provided.").

564 *See* Du Mont, *A Non-Obvious Design*, *supra* note 533.

565 35 U.S.C. § 102(a) (setting forth conditions for patentability, novelty).

566 The America Invents Act of 2011 adopted the first-to-file system which also applied to design patents, pursuant to § 171 (b).

567 Andrew Beckerman-Rodau, *Design Patent Evolution: From Obscurity to Center Stage*, 32 SANTA CLARA HIGH TECH. L. J. 53 (2015).

While the requirement of "new and original" does not cause serious problems, one of the most contentious issues relates to the ornamentality requirement.[568] The criterion used when interpreting the ornamentality of the design is whether the article is visible during the normal and intended use. In the case of *In re Stevens*,[569] the Court of Customs and Patent Appeals held that articles concealed during the normal and intended use are not proper subjects for design patents.[570] The USPTO also rejected the design of hip stem prostheses because the claimed design lacks ornamentality due to its invisibility during normal use.[571] In other words, case law established an additional rule that the ornament features must be visible during normal use to satisfy the ornamentality requirement and that the term "normal and intended use" means only the time when an article is in actual use, not the time before it was ready to be used, during its production for instance. Put it another way, design patentable subject-matter must consist of the visual characteristics perceived during the normal and intended use of an article to satisfy the ornamentality requirement.

Another interpretation of the ornamentality requirement is the "not ugly" standard as held in *Contico Int'l, Inc. v. Rubbermaid Commercial Prods., Inc.*.[572] The court stated that "[p]erhaps it is too much to expect that a trash-can dolly is beautiful. It is enough for present proposes that it is not ugly, especially when compared to prior designs."[573] According to the court, merely escaping being ugly would suffice to be the ornamental design as required under 35 U.S.C. § 171(a). This rationale is prone to lower the threshold standard of ornamentality because merely escaping the so-called "ugliness" qualifies for protection. It is also detrimental to the legal certainty because the "not ugly" criterion results in a vague assessment varying greatly from person to person. Adopting the not being ugly

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568 The ornamentality requirement was first codified in 1902; *see* the Act of May 9, 1902, ch. 783, 32 Stat. 193, 193 (revising Rev. Stat. § 4929); *see also* Jason J. Du Mont & Mark D. Janis, *Functionality in Design Protection Systems*, 19 J. INTELL. PROP. L. 261, 264 (2012) (describing historical context of the ornamentality requirement in detail).

569 *In re* Stevens, 173 F.2d 1015 (C.C.P.A. 1949).

570 DINWOODIE, TRADE DRESS AND DESIGN LAW, *supra* note 539, at 314 (noting that the court affirmed its position again in *in re* Cornwall, 230 F.2d 457, 459 (1956), which the court stated that "it is well-settled that the patentability of a design cannot be based on elements which are concealed in the normal use of the device to which the design is applied.").

571 *In re* Webb, 916 F.2d 1553, 1557 (Fed. Cir. 1990); *see id.*

572 Contico Int'l, Inc. v. Rubbermaid Commercial Prods., Inc., 665 F.2d 820, 825 (8th Cir. 1981).

573 *Id.* at 317.

standard may not be the correct approach because even fine art can be ugly too. The same consideration can also be said to the opposite standard of being beautiful. Opposed to the "not ugly standard," in *Blisscraft of Hollywood v. United Plastics Co.*,[574] the court applied the stricter standard by considering individual characteristics of aesthetic aspects and reasoned that the design lacked ornamentality because the article "has no particularly aesthetic appeal in line, form, color, or otherwise. It contains no dominant artistic motif either in detail or in its overall conception. Its lid, body, handle, and base retain merely their individual characteristics when used in conjunction with each other without producing any combined artistic effect. The reaction which the pitcher inspires is simply that of the usual, useful, and not unattractive piece of kitchenware."[575] In *Blisscraft,* the court concentrated on the ornamental characteristics and held that if they did not add extra aesthetic merit to the article, they would not satisfy the ornamental requirement.

The USPTO examines the design patentability requirements substantively before the grant of a design patent. Subsequently, a design patentee has the exclusive right to exclude others from making, using, selling, or importing the patented designs during the term of patent protection for a maximum of fifteen years.[576] Infringing acts are prescribed in 35 U.S.C. § 271. § 271 (a) states:

> Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the U.S., or imports into the U.S. any patented invention during the term of the patent therefor, infringes the patent.

In the US, there is no explicit provision on a test for infringement of a design patent, and it is stemmed from the court's decisions. In essence, the court applies an infringement test known as the "ordinary observer" test in which it determines design patent infringement based on the perception of the ordinary observer familiar with the prior art designs. The infringement occurs when the ordinary observer finds that the alleged design is the same as or substantially similar to the patented design. The ordinary observer test began to take root in 1871 when the US Supreme court ruled on a historic landmark case regarding substantive design patent law after more than a hundred years of absence in

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574 Blisscraft of Hollywood v. United Plastics Co., 294 F.2d 694 (2d Cir. 1961).
575 *Id*.
576 35 U.S.C. § 173.

Gorham Co. v. White.[577] The fact of the case concerns designs of silverware. Gorham owned a design patent for its silverware pattern called "cottage pattern" while the defendant White sold an allegedly similar design pattern called "White, 1867" and "White, 1868" imprinted on its silverware, as illustrated in Figure 3.5.

Figure 3.5 Gorham's design (left) and White's designs: White, 1867 and White, 1868 (middle and right)[578]

The court held that there was an infringement of Gorham's patented design due to the similarity between the two designs from the perception of the ordinary observer. Only minor differences did not suffice to deny the similarity between the two designs. The court stated that "in the eye of an ordinary observer, giving such attention as a purchaser usually gives, two designs are substantially the same, if the resemblance is such as to deceive such an ordinary observer, inducing him to purchase one supposing it to be the other, the first one patented is infringed by the other."[579] The court rejected the perception of the expert by noting that "there could never be piracy of a patented design" if the expert were to judge the similarity of designs at issue.

On the other hand, there was case law providing a contradictory analysis, which put less emphasis on the ordinary observer and the side-by-side comparison applied by the court in *Gorham*. Some case law showed that the court's analysis related to other fields of intellectual property. In *Braun*

[577] Gorham Co. v. White, 81 U.S. 511, 528 (1871).
[578] Perry J. Saidman & Allison Singh, *The Death of Gorham Co. v. White: Killing it Softly with Markman*, 86 J. PAT. & TRADEMARK OFF. SOC'Y 792 (2004).
[579] *Id*.

Inc. v. Dynamics Corp. of Am.,[580] the court denied the relevance of consumers' behaviors in the marketplace, possibly reflecting that the ordinary observer test might not be correct. Nevertheless, another landmark case of design patent infringement was *Egyptian Goddess, Inc. v. Swisa, Inc.*,[581] in which the court reaffirmed *Gorham* that the ordinary observer test gained priority over the point of novelty test.[582] According to the ordinary observer test, a design patent infringement occurs when the ordinary observer familiar with the prior art considers that the alleged design is substantially similar to the patented design as a whole. The Federal Circuit stated:

> [I]f, in the eye of an ordinary observer, giving such attention as a purchaser usually gives, two designs are substantially the same, if the resemblance is such as to deceive such an observer, inducing him to purchase one supposing it to be the other, the first one patented is infringed by the other.[583]

Furthermore, a distinctive characteristic of the US design patent regime is an additional remedy for an act of infringement.[584] There are both equitable remedies in the form of injunctive relief under 35 U.S.C. § 283 and legal remedies such as monetary damages under § 284.[585] A remedy specifically available for infringement of design patent is prescribed in 35 U.S.C. § 289, which states that an infringer "shall be liable to the owner to the extent of his total profit, but not less than $250."[586] The provision contributes to a design patent being in the ascendant because it enables the infringed design patentee to claim damages resulting from the infringement in an amount worth the effort and maybe more than other types of IP infringement cases.[587]

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580 Braun Inc. v. Dynamics Corp. of Am., 975 F.2d 815 (Fed. Cir. 1992).

581 Egyptian Goddess, Inc. v. Swisa, Inc., 543 F.3d 665 (Fed. Cir. 2008) (en banc).

582 The point of novelty test was created before the ordinary observer test, centering on the novelty of design features differing them from the prior art. *See* Sears, Roebuck & Co. v. Talge 140 F.2d 395, 396 (8th Cir.1944) (holding that "the accused device must appropriate the novelty in the patented device which distinguishes it from the prior art.").

583 *Egyptian Goddess*, 543 F.3d at 528.

584 *See, e.g*., Pamela Samuelson & Mark Gergen, *The Disgorgement Remedy of Design Patent Law*, 108 CAL. L. REV. 51 (2020) (discussing in detail the remedy of design patent law).

585 35 U.S.C. § 284 ("[T]he court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court.").

586 35 U.S.C. § 289.

587 In Apple Inc. v. Samsung Electronics Co., Ltd. cases, the damages awarded under 35 U.S.C. § 289 were staggering USD 539 million. The parties settled the case in 2018.

In 2015, the US officially became a party to the Hague Agreement. The Patent Law Treaties Implementation Act 2012 added Chapter 38, titled "International Design Applications," to the patent law as prescribed in 35 U.S.C. § 381-389. A meaningful change includes the more extended term of fifteen year-protection from the date of grant for design patent applications filed on or after May 13, 2015.[588]

3.3.3 The Interface between Design Patent and Copyright for Industrial Design Protection in the US

Having examined how the US protects industrial designs under patent law, this section further delves into the copyrightability of industrial designs to understand the interface between both regimes related to industrial design protection. The US design patent and copyright protection share a common bedrock grounded in the supremacy of the US Constitution, which states that Congress shall have power "to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."[589] As opposed to free competition, intellectual property rights bring some monopolistic rewards to intellectual property owners for the effort in promoting the progress of science and useful arts. Justice Reed pointed out that the copyright clause has an economic justification and that creating an incentive with a personal reward is "the best way to advance public welfare through the talents of authors and inventors."[590] As for a patent regime, there exists a sacred promise of a limited monopoly in that the patented invention becomes available in the public domain after the patent expires.[591] While copyright shares the same commitment of a limited monopoly, its protection period is lengthier than that of patent protection.

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588 35 U.S.C. § 173 (The provision was amended due to the Hague Agreement of which the US became a contracting party on May 13, 2015); *see* Hague Agreement, *supra* 2.2.4 (providing details about the Hague Agreement).

589 U.S. CONST. art. 1, § 8, cl. 8.

590 *See* Gregory R. Mues, *Dual Copyright and Design Patent Protection: Works of Art and Ornamental Designs Notes and Comments*, 49 ST. JOHN'S L. REV. 543, 544 (1975) [hereinafter "Mues, *Dual Copyright and Design Patent Protection*"].

591 Sears, 376 U.S. 225, at 230 (1964) (holding that "when the patent expires the monopoly created by it expires, too, and the right to make the article - including the right to make it in precisely the shape it carried when patented - passes to the public.").

The copyright exclusivity ends after the creator's lifetime plus seventy years passed,[592] whereas a design patent ends when it reaches a term of fifteen years for the application filed on or after May 13, 2015; and a term of fourteen years for applications filed prior to that date. [593] In addition to the different terms of protection, another significant difference between design patent protection and copyright protection is the rights conferred under each regime. A design patent provides the exclusive right to exclude others from making, using, selling, offering to sell, or importing the patented design,[594] whereas copyright owners have a bundle of rights, namely the right to reproduce the work and the right to distribute copies to the public. [595] Unlike patent protection, copyright only protects against copying without permission and does not protect against the independent creation of the protected work.

The US historically developed ways to regulate the interface between design patents and copyright through piecemeal legislation and case law. When the design patent law was enacted in 1842, an overlap with copyright was a trivial matter since the copyrightable subject-matter was relatively limited. The relationship between design patent protection and copyright protection for industrial designs has evolved over the course of time, particularly after each regime lost the domain of sole exclusivity regarding the protectable subject-matter. An overlap occurs where an industrial design can obtain a design patent and copyright because the ornamental aspects are patentable and

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592 Some works reap the benefits of copyright more than the life of author plus 70 years; 17 U.S.C. § 302(a). Some works can have longer terms of up to 95 or 120 years; *see id.* § 302(c).

593 35 U.S.C. § 173; *see supra* note 588.

594 *Id.* § 271(a); *see id.* § 171(b) ("The provisions of this title relating to patents for inventions shall apply to patents for designs, except as otherwise provided.").

595 17 U.S.C. § 106 states:

> …the owner of copyright under this title has the exclusive rights to do and to authorize any of the following: (1) to reproduce the copyrighted work in copies or phonorecords; (2) to prepare derivative works based upon the copyrighted work; (3) to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending; (4) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual works, to perform the copyrighted work publicly; (5) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and pictorial, graphic, or sculptural works, including the individual images of a motion picture or other audiovisual work, to display the copyrighted work publicly; and (6) in the case of sound recordings, to perform the copyrighted work publicly by means of a digital audio transmission.

copyrightable at the same time.[596] In the following sections, this dissertation examines the design patent/copyright interface by reviewing the legislative background of the US copyright law related to industrial design protection, assessing, in particular, the copyrightability of industrial designs under copyright law and relevant case law.

3.3.3.1 The copyrightability of industrial designs: Legislative requirements under copyright law

The US history of copyright law dates back to 1787 when James Madison, a founding father of the US constitution, proposed a provision "to secure to literary authors their copyright for a limited time."[597] In 1790, the first copyright legislation under the US Constitution was promulgated, providing fourteen-year-term protection with a one-time extension to another fourteen years.[598] In 1870, copyrightable subject-matter extended for the first time to three-dimensional designs.[599] Subsequently, the boundaries between copyrightable three-dimensional artworks and design patentable works became increasingly blurry. The copyright approach was initially considered a model for protecting industrial designs in the US; however, several attempts failed to achieve a positive result. For example, there was an attempt to propose a draft of the Copyright Act 1976 that granted copyright-like protection to ornamental elements of industrial designs, but it did not survive in the end.[600] Another attempt was to use the term "artistic" instead of "useful" in the Patent Act 1842, but the term "ornamental" was used in the provision regarding the patentability requirements when the legislation was majorly changed in 1902.[601]

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596 MPEP, *supra note* 560, § 1512 (I).

597 *See A Century of Lawmaking for a New Nation: U.S. Congressional Documents and Debates, 1774–1875 Farrand's Records, Volume 2*, LIBRARY OF CONGRESS, available at http://memory.loc.gov/cgi-bin/ampage?collId=llfr&fileName=002/llfr002.db&recNum=326 (last visited Mar. 13, 2022)

598 *See* Act of May 31, 1790, ch. 15, 1 Stat. 124, 124; *see also* US Copyright Office, *A Brief Introduction and History*, https://copyright.gov/circs/circ1a.html (last visited Mar. 2, 2022).

599 Act of July 8, 1870, ch. 230, 16 Stat. 198, 214.

600 Jerome H. Reichman, *Design Protection after the Copyright Act of 1976: A Comparative View of the Emerging Interim Models Part I*, 31 J. COPYRIGHT SOC'Y U.S.A. 267 (1984) [hereinafter "Reichman, *Design Protection after the Copyright Act of 1976*"].

601 *See* Kelsey M. Mott, *The Concept of Small Patent in European Legal Systems and Equivalent Protection under United States Law*, 49 VA. L. REV. 232, 235 (1963).

The historical background demonstrates that the US constantly opposed total cumulation or the theory of the unity of art as implemented in France.[602] The objection is evident in the Copyright Act 1976, which places a high threshold standard on the copyrightability of useful articles. Such mechanism is also known as the "useful articles doctrine" aimed to exclude from copyright protection "industrial design including the creativity associated with successfully marrying form and function."[603] Put simply, the useful articles doctrine "screens out functional elements of an object so that functionality remains the domain of patent alone."[604] Accordingly, the US tackles the interface between design patent and copyright laws by imposing restrictions on the protection of industrial designs, affording copyright protection for useful articles to only certain aspects and under some requirements. First, a useful article eligible for copyright protection must be in the categories of pictorial, graphic, or sculptural works [hereinafter "PGS work(s)"]. The 1976 Copyright Act provides for the statutory definition of PGS works in § 101, which states:

> "Pictorial, graphic, and sculptural works" include two-dimensional and three-dimensional works of fine, graphic, and applied art, photographs, prints and art reproductions, maps, globes, charts, diagrams, models, and technical drawings, including architectural plans. Such works shall include works of artistic craftsmanship insofar as their form but not their mechanical or utilitarian aspects are concerned…[605]

The 1976 Copyright Act, § 101 illustrates clearly that PGS works can be two-dimensional or three-dimensional and in any of the categories described in the provision, including a work of artistic craftsmanship for its non-mechanical and utilitarian aspects. According to the provision, industrial designs can qualify as the three-dimensional works of applied art and models; the ornamental elements embodied in or applied to industrial designs qualifying as the two-dimensional works of fine, graphic, and technical drawings, for instance, will also qualify as PGS works. Nevertheless, industrial designs, which are works of artistic craftsmanship, only qualify as PGS works for their ornamental aspects, not the mechanical or utilitarian aspects.

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602 *See supra* 4.3.2.3 (describing further information about the theory of unity of art).
603 Mala Chatterjee, *Conceptual Separability as Conceivability: A Philosophical Analysis of the Useful Articles Doctrine*, 93 N.Y.U. L. REV. 31 (2018) at 563 n.20.
604 *Id*.
605 17 U.S.C. § 101.

Second, the Act further specifies that the design of a useful article eligible for copyright protection must be a PGS work:

> that can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the article.[606]

Therefore, industrial designs embodying both functional and ornamental aspects can be protected under copyright law, provided the ornamental features qualifying as a PGS work can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the article. In other words, copyright requires that the ornamental features of a PGS work be separable from the utilitarian aspects, leading to the birth of the separability test borne by the US courts. Consequently, the US copyright law does not afford protection to the design that cannot exist alone or is inseparable from an article of manufacture.

The definition of "useful articles" set forth in § 101 states as follows:

> A "useful article" is an article having an intrinsic utilitarian function that is not merely to portray the appearance of the article or to convey information. An article that is normally a part of a useful article is considered a "useful article."[607]

According to the provision, the ornamental features of a useful article can be protectable only to the extent that they can be separable from utilitarian features.[608] Hence, there can never be a cumulation between design patent protection and copyright protection for the functional features of industrial designs. Such separation provides a similarity between design patent and copyright laws because both laws afford no protection for the functional features of industrial designs. A design patent does not protect the functional features, and the Copyright Act creates barriers to the protection of useful articles. The Copyright Act is thus prone to deny protection to the bulk of industrial designs, which are three-dimensional works of applied art having utilitarian aspects, since they cannot overcome the legal hurdles. Considering the nature of industrial designs, it is very difficult or even

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606 *Id*.

607 *Id.*

608 *See, e.g.*, PHG Techs., LLC v. St. John Cos., Inc., 469 F.3d 1361, 1366 (Fed. Cir. 2006) (holding that "design that is primarily functional as opposed to being primarily ornamental cannot be protected by a design patent.").

impossible in some cases that the ornamental features, though qualified as PGS works, are identified separately and capable of existing independently from the actual article in which they are incorporated.

Another crucial point of what constitutes a useful article is that it must not be created to merely "portray the appearance of the article or to convey information."[609] The Act clarified that copyright does not subsist in the two- or three-dimensional depictions of useful articles, and those depictions are not regarded as useful articles.[610] For example, drawings or clay modeling for designing an automobile are not useful articles, but an automobile, once manufactured, is a useful article, pursuant to § 101. Moreover, the law specifies that the creator of the depiction of a useful article is not entitled to copyright protection of the useful article.[611] For example, a person who makes a wine glass drawing cannot claim copyright protection for an actual wine glass manufactured. That person has only the exclusive right to reproduce the drawing, which is a pictorial work, as industrially applied on goods irrespective of being useful articles.[612] Subsequently, the exclusion demarcates industrial designs qualified as useful articles protectable under copyright law from those unqualified as useful articles from the ambit of copyright law. By contrast, industrial designs, which are non-utilitarian works – designs that merely "portray the appearance of the article or to convey information"[613] are not useful articles as defined in copyright law; consequently, the separability test is irrelevant to them.

Aside from the legislative landscape unsupportive of copyright protection for industrial designs, the US judicial position has been inconsistent on the issue, interpreting diversely the statutory separability and cumulative protection with copyright. In *Louis Dejonge & Co. v. Breuker & Kessler Co*,[614] the Supreme Court held that "the owner of painting Holly, Mistletoe, and Spruce was bound to his original election of copyright protection" although "he could have received design patent

609 17 U.S.C. § 101.
610 *Id.* § 113 (b) ("This title does not afford, to the owner of copyright in a work that portrays a useful article as such, any greater or lesser rights with respect to the making, distribution, or display of the useful article so portrayed than those afforded to such works under the law.").
611 *Id*.
612 17 U.S.C. § 113 (a) ("the exclusive right to reproduce a copyrighted pictorial, graphic, or sculptural work in copies under Section 106 includes the right to reproduce the work in or on any kind of article, whether useful or otherwise.").
613 *Id*. § 101.
614 *See* Louis Dejonge & Co. v. Breuker & Kessler Co., 235 U.S. 33 (1914).

protection."[615] Under the doctrine of election, only one intellectual property protection applies to an industrial design in the case that it is eligible for more than one intellectual property protection.[616] On the contrary, there has been some case law from the past to the recent present, allowing for simultaneous overlapping protection on the same subject-matter. The early prominent case of cumulative copyright and design patent protection is *In re Yardley*, whereby the court opined that "Congress has not provided that an author-inventor must elect between securing a copyright or securing a design patent."[617] The court was not supportive of the doctrine of election for solving overlapping protection between design patents and copyright.[618] Specifically, the court held that "the proprietor of an artistic design for a work of art may, in a proper case, obtain dual copyright and design patent protection."[619] In other words, the court denied non-cumulation between design patent protection and copyright protection and hinted that cumulative protection between both regimes would be permissible.

As for partial cumulation, the US court seemingly opposed aesthetic merit as a criterion for copyright protection. In *Bleistein v. Donaldson Lithographing Co.*,[620] the court established an important principle concerning copyright protection of works of applied art, introducing a principle of nondiscrimination to the implication of the US copyright law. Justice Holmes noted that "it would be a dangerous undertaking for persons trained only to the law to constitute themselves, final judges of the worth of pictorial illustrations, outside of the narrowest and most obvious limits."[621] The principle of nondiscrimination that arose in *Bleistein* recognized that there was a justification of the personality expressed in the work but denied the artistic value required for copyright protection. As Hughes noted, "Bleistein rejected any 'great art' requirement as too high a threshold for copyright. Such a

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615 Douglas R. Wolf, *The Doctrine of Elections: Has the Need to Choose Been Lost Note*, 9 CARDOZO ARTS & ENT. L.J. 439, 449 (1990) [hereinafter "Wolf, *The Doctrine of Elections*"].

616 *See generally id*.; Mues, *Dual Copyright and Design Patent Protection*, *supra* note 590; Laura A. Heymann, *Overlapping Intellectual Property Doctrines: Election of Rights versus Selection of Remedies*, 17 STAN. TECH. L. REV. 239 (2013).

617 *In re* Yardley, 493 F.2d 1389, 1394 (C.C.P.A.1974).

618 *Id.* at 1389 (holding that it is not necessary for the inventor to elect between copyright or design patent protection).

619 *Id*.

620 Bleistein v. Donaldson Lithographing Co., 188 U.S. 239 (1903).

621 *Id.* at 251.

requirement would have limited property protection to those few works in which it is clearly evident that the work came from a particular personality and was of such a nature that most other personalities could not have created it."[622] According to the principle of nondiscrimination, applying aesthetic merit for determining copyrightability would be discriminatory to works, especially in the sphere of industrial art. In this regard, there would be industrial designs left unprotected by copyright due to the threshold of aesthetic merit. On the other hand, the personality justification does not discriminate but encourages copyright protection for industrial designs because of the designers' personalities originally expressed in the works.

The landmark case related to the copyrightability of a useful article occurred in 1954. The US Supreme Court, for the first time, accorded copyright protection for an ornamental design of a useful article in *Mazer v. Stein*.[623] The court ruled on the issue of copyrightability of statuettes used as lamp bases, holding that the statuettes were copyrightable and that copyright infringement occurred when there was a reproduction of the work in everyday articles such as a table lamp at issue.[624] As regards the interface between design patent protection and copyright protection, the court reasoned that "the patentability of the statuettes, fitted as lamps or unfitted, did not bar copyright as work of art"[625] and further said that "neither the Copyright Statute nor any other says that because a thing is patentable, it may not be copyrighted."[626] The court's reasoning demonstrated a stance on the interface between design patent rights and copyright, holding that an industrial design was still eligible for copyright protection even though it was simultaneously eligible for design patent protection. Nonetheless, the court did not analyze further other than noting the absence of legal rule precluding cumulative protection. It is worth noting that the issue of cumulative protection between design patents and copyright was not raised before the court because the copyright owner did not apply for a design

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622 Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO. L.J. 287, 352 (1988) [hereinafter "Hughes, *The Philosophy of Intellectual Property*"].

623 Mazer v. Stein, 347 U.S. 201 (1954).

624 17 U.S.C. § 501(a) ("[A]nyone who violates any of the exclusive rights of the copyright owner… is an infringer of the copyright or right of the author."); *see also supra* note 595 (providing details about a bundle of rights owned by the copyright holder).

625 Mazer, 347 U.S. at 217.

626 *Id*.

patent.[627] In this regard, the court noted "other courts have passed upon the issue," thereby rejecting to rule on the issue as to whether the design proprietor could receive concurrent protection between design patent rights and copyright. The reasoning inferred from the case is that cumulative protection between design patents and copyright would be permissible to protect industrial designs. The court in *Mazer* appeared not to deny the notion that a copyrightable expression could be in a commercial product.

Despite the court's decision, industrial designs experienced difficulty in obtaining copyright protection because the Copyright Office was reluctant to extend copyright protection to industrial designs due to the anti-competitive effects.[628] The Report of the Register of Copyrights stated, "We do not believe, however, that it would be appropriate to extend the copyright law to industrial designs as such."[629] The Copyright Office instead suggested a sui generis regime to protect works of applied art.[630] The Senate then proposed a Copyright reform bill, Title II, which failed to reach fruition. The House Judiciary Committee flatly rejected the proposal to establish a new right because it would create a new monopoly unjustified for public use.[631]

In practice, the USPTO provides a way to manage the design patent and copyright interface by allowing the proprietors of industrial designs to attach a copyright notice in a design patent application.[632] Germain to the US copyright regime, registration is a prerequisite to a lawsuit against infringement of US copyrightable works, although there is no registration required for copyright protection.[633] The US Copyright Office issues a certificate of registration to an industrial design owner

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627 *Id*.

628 *See* Shira Perlmutter, *Conceptual Separability and Copyright in the Designs of Useful Articles Part I*, 37 J. COPYRIGHT SOC'Y U.S.A. 339, 345 (1990).

629 Report of the Register of Copyrights on the General Revision of the US Copyright Law, 87th Cong., 1st Sess. 14-15 (Comm. Print 1961), 13.

630 *Id*. at 16.

631 H.R. Rep. No. 94-1476, 94th Cong., 2d Sess. 50 (1976), reprinted in 1976 U.S. Code Cong. & Ad. News 5659-5801.

632 MPEP, *supra* note 273, § 1512 (II).

633 *Id.* § 411 (a) ("[N]o civil action for infringement of the copyright in any United States work shall be instituted until preregistration or registration of the copyright claim has been made in accordance with this title").

who successfully convinces that the claimed ornamental elements qualify to be identified separately and exist independently from the article of manufacture.

3.3.3.2 The separability test: Judicial interpretations for the copyrightability of industrial designs

The US courts do not always deny simultaneous cumulation between design patent protection and copyright protection: patented industrial designs may be copyrightable if industrial designs qualify as useful articles, and their artistic features can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the article. In this regard, the separability test plays a vital role in determining the copyrightability of industrial designs. The separability test is the standard assessed by the US court under § 101 of the US Copyright Act[634] to determine whether an industrial design qualifies as a PGS work in which copyright subsists. The copyrightability of an industrial design is conditional upon 1) whether an industrial design is or contains a PGS work, and 2) whether the PGS work is identified separately from, and capable of existing independently of, the utilitarian aspects. Put simply, copyright protection is available for protecting an industrial design possessing artistic features in the form of PGS works that can be separable from a utilitarian feature of the article. Copyright only subsists in the PGS works incorporated in industrial designs. The concept of art-utility distinction is a rationale of the court for denying copyright in industrial designs of which the aesthetic elements do not survive the standardized test.[635] The historical development of the separability test began in the statutory provision of the US copyright law, shaped by regulations of the Copyright Office, and applied differently in practice by the US courts over the course of time.

The statutory provision does not elaborate on the separability test, but the historical background indicated that there are two kinds of separability tests: the physical and conceptual separability tests. The Copyright Office clarified that when a PGS work cannot be physically separated

634 17 U.S.C. § 101.

635 Notes on Protecting the Artistic Aspects of Articles of Utility: Copyright or Design Patent?, 66 Harv. L. Rev. 877 (1953).

from the useful article, it will apply the conceptual separability test, which means that "a feature of the useful article is clearly recognizable as a pictorial, graphic, or sculpture work," and that "this artistic feature must be capable of being visualized…as a work of authorship that is independent of the overall shape of the useful article."[636] Since the landmark US Supreme Court decision in *Mazer*, the separability test has had repercussions on the copyrightability of industrial designs in the US. Following the interpretation of § 101,[637] the separability test has been developed by scholars and through case law, appearing in varying forms and degrees.[638] A wide array of separability tests emerged, sharing the same aim to ascertain whether copyright subsists in the industrial art. The courts commonly applied the conceptual separability test when the artistic features are questionable as to whether they are inseparable from the article attached to it. There are several approaches to the conceptual separability test established by the US court.[639] For example, in a design process approach developed in *Brandir International, Inc v. Cascade Pacific Lumber Co.*,[640] the creator's state of mind during the creating process determines whether the artistic feature is separable from the functional features.[641] Another approach is the marketability test,[642] addressed by Professor Nimmer, which centers on the article's marketability when the utilitarian aspects are removed, and only the aesthetic aspects exist.[643] In 1989, Professor Goldstein proposed the traditional aesthetic appeal test, emphasizing the aesthetic appeal of a PGS work incorporated in a useful article.[644] The test is satisfied when the PGS work conceptually separated from the article is still traditionally conceived as a work of art. Another approach called the "primary/subsidiary test" was established by the Court of Appeals for the Second Circuit in *Kieselstein-Cord v. Accessories by Pearl, Inc.*,[645] whereby the court assigned

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636 H.R. REP. NO. 94-1476, at 55 (1976), reprinted in 1976 USCCAN at 5668-69.
637 17 U.S.C. § 101.
638 *See* Jerry Jie Hua, *Copyright Protection of Works of Applied Art: Rethinking Conceptual Separability and Aesthetic Requirement for Copyrightability*, 12 J. INTELL. PROP. L. & PRAC. 673 (2017) (discussing in detail the approaches to the separability test).
639 *See* Sonja WolfSahlsten, *I'm a Little Treepot: Conceptual Separability and Affording Copyright Protection to Useful Articles*, 67 FLA. L. REV. 941 (2016); Hua, *supra* note 638.
640 Brandir International, Inc v. Cascade Pacific Lumber Co., 834 F.2d 1142 (2nd Cir. 1987).
641 Hua, *supra* note 638, at 676.
642 *Id*.
643 *See* Galiano v. Harrah's Operating Co, Inc., 416 F.3d 411 (5th Cir. 2005) (applying the likelihood of the marketability approach).
644 *See* Hua, *supra* note 638, at 677.
645 Kieselstein-Cord v. Accessories by Pearl, Inc., 632 F.2d 989 (2d Cir. 1980).

the status of being the primary element to the aesthetics and the subsidiary element to the functionality. The test is satisfied when the primary element can be conceptually separable from the subsidiary element. Judge Newman proposed a temporal displacement test in his dissenting opinion in *Carol Barnhart Inc v. Economy Cover Corp.*,[646] which underscored the mind of the ordinary and reasonable beholder: a concept stimulated by the artistic features conceptually separated in mind must differ from the concept stimulated by the utilitarian aspects alone.[647]

As previously examined, the separability test has doctrinal and practical perplexities because it is germane to dissecting elements in industrial designs, which is difficult if not impossible to do. Under the separability test, a piecemeal decomposition of the work is necessary to determine whether a functional feature can exist on its own and therefore be separable from an aesthetic feature that is copyrightable. Accordingly, many approaches to the separability test appear to share the same weakness resulting from subjectivity which is inevitably involved in the separation.

The US judicial practice about the separability test varies at different points in time, and there is a varying degree of dissection conducted by different courts. At the early stage of the application of the test, the US court denied copyright protection to three-dimensional industrial designs in almost all cases.[648] Such a practice closely resembled those of the Italian courts in the old time, which adhered to the principle of dissociation, precluding industrial designs from copyright protection if the artistic feature cannot be separable from the inherent nature of the article.[649] However, the recent developments in case law indicate that the court is geared to afford copyright protection to a useful article on the condition that it satisfies the physical or conceptual separability test as formulated by the court.

In *Star Athletica, L.L.C. v. Varsity Brands, Inc*.,[650] the Supreme Court held that copyright subsists in the Varsity's graphic designs because they could be "imagined separately"[651] from the

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646 Carol Barnhart Inc v. Economy Cover Corp., 733 F.2d 411 (2nd Cir. 1985).
647 *See* Hua, *supra* note 638, at 675.
648 *See* Reichman, *Design Protection and the New Technologies, supra* note 7, at 61.
649 *See supra* 3.1.3.2 (providing details about the Italian's approach).
650 Star Athletica, L.L.C. v. Varsity Brands, Inc. 137 S. Ct. 1002 (2017).
651 *Id*. at 1007.

cheerleading uniform. As shown in Figure 3.6, the designs were not physically separable because the artistic features composed of colors, stripes, and chevrons were printed on the fabric made to be a cheerleading uniform. The court then applied the conceptual separability test, articulating its own approach to determining copyrightability. The Supreme Court held:

> [A] feature incorporated into the design of a useful article is eligible for copyright protection only if the feature (1) can be perceived as a two- or three-dimensional work of art separate from the useful article and (2) would qualify as a protectable pictorial, graphic, or sculptural work—either on its own or fixed in some other tangible medium of expression—if it were imagined separately from the useful article into which it is incorporated.[652]

Subsequently, the ornamental features of a useful article are eligible for copyright protection because they can be perceived as PGS works separately from the useful article. The court's ruling caused controversy about the copyrightability of fashion designs at issue. Justice Breyer noted in his dissenting opinion as follows:

> Looking at all five of Varsity's pictures, I do not see how one could conceptualize the design features in a way that does not picture, not just artistic designs, but dresses as well. … The esthetic elements on which Varsity seeks protection exist only as part of the uniform design – there is nothing to separate out but for dress-shaped lines that replicate the cut and style of the uniforms. Hence, each design is not physically separate, nor is it conceptually separate, from the useful article it depicts, namely, a cheerleader's dress. They cannot be copyrighted.

Moreover, literature indicated that the court's approach to applying the conceptual separability as such could be problematic for some industrial designs.[653] For example, industrial designs incorporating a PGS work in or on them are prone to have a disadvantage of applying the test in cases where the artistic features are the overall appearances: when imagined separately, the artistic features no longer exist to serve the articles. In other words, the artistic features cannot be perceived as existing independently of the article's utility and therefore cannot be eligible for copyright protection. Industrial designs in the form of clothing are generally an ineligible subject-matter for

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652 *Id.*

653 *See* Jane C. Ginsburg, *'Courts Have Twisted Themselves into Knots' (and the Twisted Knots Remain to Untangle): US Copyright Protection for Applied Art after Star Athletica*, in THE COPYRIGHT/DESIGN INTERFACE: PAST, PRESENT, AND FUTURE 301 (Estelle Derclaye ed., 2018) [hereinafter "Ginsburg, *US Copyright Protection for Applied Art*"].

copyright protection as a whole;[654] however, the artistic features identified separately and independent of the utilitarian aspects are copyrightable.[655] Although the separability test presents industrial designs an opportunity to be protected under copyright law, it complicates the issue of copyrightability for industrial designs. The conceptual separability test is surrounded by controversy, which is partly due to a plethora of variations in the applications of the test. Hence, it further complicates rather than facilitates industrial design protection at the end when considering the intrinsic characteristics of modern industrial designs and the legal uncertainty accompanying such an approach.

Figure 3.6 The Varsity's designs[656]

3.3.4 Conclusion

The interface between design patent and copyright regimes in the US can be a manifestation of past developments related to legislative, judicial, and political spheres about industrial design protection over the course of time. The overlaps chiefly existed by virtue of eligible subject-matter under design patent and copyright laws. At the early development of legislation related to industrial design protection, the boundaries of design patent and copyright laws did not cause much overlap until the new technologies further complicated the boundaries. Subsequently, the expansion of subject-matter caused overlapping protection between copyrightable subject-matter and design patentable subject-matter.[657] Industrial designs composed of ornamental features are no longer restricted to the

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654 *See* Whimsicality, Inc. v. Rubie's Costume Co., 891 F.2d 452, 455 (2d Cir. 1989) (holding that "clothes, as useful articles, are not copyrightable."); Beckerman-Rodau, *The Problem with Intellectual Property Rights*, *supra* note 126, at 79 n.204.

655 *See* 17 U.S.C. § 101; *see also* 3.3.3.1 (describing the copyrightability of industrial designs).

656 Star Athletica, 137 S. Ct. at 1002.

657 *See supra* 2.4.2 (describing the subject-matter expansion causing overlapping protection).

design patent regime; copyright also subsists in the ornamental features, provided they are regarded as PGS works of "useful articles."[658] As regards cumulative protection, a conclusion can be drawn from reviewing the legislative background, which provides an outlook on how Congress has treated industrial design protection under patent and copyright laws. It demonstrated that Congress neither excluded cumulative protection between design patent rights and copyright under legislation nor supported the position to fully accord copyright protection to industrial designs. The useful articles doctrine enshrined in the Copyright Act is strong evidence. The legislative history appeared to endorse the "not copyright view of protection for industrial design."[659] By contrast, the judicial decisions have been diverse concerning the copyrightability of industrial designs, applying various tests to segregate the copyrightable subject-matter from the non-copyrightable subject-matter.[660] The increasing advantages of the US design patent regime and the ever-existing demand in the quest for copyright-like protection for industrial designs will give rise to the more discernable interface between design patent protection and copyright protection in the coming years.

[658] *See supra* 3.3.3.1 (describing details about the useful articles doctrine).
[659] Viva R. Moffat, *The Copyright/Patent Boundary*, 48 U. RICH. L. REV. 611, 626 (2014).
[660] *See supra* 3.3.3.2 (describing details about the judicial interpretations).

CHAPTER 4

Industrial Design Protection in Thailand and Legal Implications of the Design Patents/Copyright Interface

This chapter first examines the legal framework related to industrial design protection in Thailand. Then, it presents analyses on the interface between design patent protection and copyright protection for industrial designs regarding both legal and practical situations, followed by a discussion on the adequacy of the current design patent regime in Thailand. The last part of this chapter discusses solutions to the interface between design patents and copyright by analyzing the importance of copyright for industrial design protection in Thailand and approaches to cumulative protection with copyright, leading to the conclusions and recommendations, as will be presented in chapter 5.

4.1 Protection of Industrial Designs in Thailand

This section explores Thailand's history of the legal protection of industrial designs. It further examines, in 4.2, the current legal frameworks for industrial design protection and analyzes how copyright and design patent laws protect industrial designs to build up the necessary backgrounds for understanding the interface between design patent protection and copyright protection in Thailand.

4.1.1 Historical Background in Brief: Thailand's Intellectual Property Laws

The Royal Proclamation of Vachirayan Library for the Protection of Literary Works R.S. 111 (B.E. 2435 and A.D. 1892), enacted in 1892, was Thailand's first legal instrument for the protection of literary works, prohibiting unauthorized reproduction of books published by the Vachirayan

Library[661]. In 1901, the Ownership of Book Authors Act R.S. 120 (B.E. 2444 and A.D. 1901)[662] was enacted to protect all published materials upon registration and was amended in 1914. The Act for the Protection of Literary and Artistic Works B.E. 2474 (1931) was passed in 1931 and later supplanted by the Copyright Act B.E. 2521 (1978) to cover the broader copyrightable subject-matter, including works of applied art.[663] The 1931 Copyright Act was enacted to fulfill commitments under the Berne Convention.[664] In 1994, the Copyright Act B.E. 2537 (1994) was enacted to satisfy obligations under the TRIPS Agreement mainly.[665] The current Copyright Act B.E. 2537 (1994) was amended by the Copyright Act (No.2) B.E. 2558 (2015), the Copyright Act (No.3) B.E. 2558 (2015), and the Copyright Act (No. 4) B.E. 2561 (2018). The Thai Copyright Act accords protection to literary and artistic works: industrial designs may be copyrightable as works of applied art.[666]

Concerning trademark protection, Thailand first protected trademarks in 1908 under the Penal Code R.S. 127 (B.E. 2451) (1908) on the imitation and falsification of trademarks and the illegal importation and sale of goods bearing counterfeited trademarks. In 1931, the Trademark Act B.E. 2474 (1931) was enacted, providing a broad definition of eligible subject-matter, which could be interpreted to include shape or configuration. Prior to enacting the Thai Patent Act B.E. 2522 (1979), trademark protection was a means for protecting product designs and industrial designs. After the Patent Act was passed, the Trademark Act B.E. 2534 (1991)[667] was amended to exclude subject-matter design patentable under patent law from the scope of protection.[668] However, the Trademark Act (No.2) B.E.

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661 The Vachirayan Library, established in 1883, originally served as a private library for the Thai Royal family; it also published books and other printed materials. In 1905, King Chulalongkorn (King Rama V) transformed the library into the public library named "Vachirayan Library for *Pranakorn* (the capital city)." After the Siamese Revolution of 1932, the library's name was later changed to the "National Library of Thailand."

662 The Act was enacted on Aug. 12, 1901, and later amended by the Ownership of Book Authors Amendment Act R.E.133 (B.E.2457 and A.D.1914).

663 The Act for the Protection of Literary and Artistic Works became effective on July 17, 1931, and the Copyright Act B.E. 2521 (1978) was published in the Government Gazette on Dec. 18, 1978.

664 The Berne Convention came into force on July 17, 1931 for Thailand.

665 *See supra* note 25.

666 *See* 4.1.5 (providing details about copyright of works of applied art).

667 The Trademark Act B.E. 2534 (1991) was published in the Government Gazette on Nov. 15, 1991, last amended by Trademark Act (No.3) B.E. 2559 (2016) [hereinafter the "Thai Trademark Act"].

668 Thai Trademark Act B.E. 2534 (1991), § 4 (stating that the term "mark" means "a photograph, drawing, brand, name, word, letter, numeral, signature, or any one or combination thereof but not including industrial designs under the law on patents.").

2543 (2000) repealed the exclusion and amended the Trademark Act B.E. 2534 (1991) to comply with the TRIPS Agreement. For example, the term "mark" was expanded to encompass combinations of colors and figurative elements as protectable subject-matter under trademark law.[669] Sounds can now be registrable as a trademark under the Trademark Act (No.3) B.E. 2559 (2016).[670]

4.1.2 The Origin of Thailand's Patent Law

The history of Thailand's patent law dates back to 1913: there was the first legislative draft on patent law and another draft in 1925, as initiated by *Chao Phraya Koumarakulmontri*, the first Director-General of the Department of Commercial Registration.[671] In 1929, the Thai patent committee was formed to draft a law to protect inventions and designs applied industrially; subsequently, there was a legislative draft titled "Law on Patent and Designs" inspired by the UK laws at the time.[672] In 1935, the legislative draft committee expressed an opinion that industrial designs were similar to patents and designated the protection of industrial designs under patent law.[673] The committee was further instructed to draft the law by considering the laws of the UK, US, France, and Japan. In 1941, there were two legislative drafts for the Patents Act and the Designs Act, which were modeled after Japanese laws and also influenced by the laws of Belgium, Denmark, and Switzerland. Unfortunately, the drafts did not survive due to World War II. In 1950, there were demands for the protection of inventions, and the government started to pay attention to its benefit in attracting investments. The Thai government then agreed on a registration system to protect inventions and ordered a drafting process to begin. In 1951, an American patent expert assisted in drafting a law titled "Patent law for inventions and Designs." In 1952, three officials traveled to the US, UK, and EU

669 Trademark Act (No.2) B.E. 2543 (2000) was published in the Government Gazette on Apr. 1, 2000. There were several amendments to the Act: for instance, about the distinctiveness, registrable color marks, unregistrable marks, and the national treatment principle.

670 Trademark Act (No.3) B.E. 2559 (2016) came into force on July 28, 2016. Thai Trademark Act, § 4 (stating that the term "mark" means "a photograph, drawing, invented device, logo, name, word, phrase, letter, numeral, signature, combination of colors, figurative element, sound or combination thereof.").

671 The name was changed to "Department of Business Development" since Oct. 3, 2002.

672 National Research Council of Thailand, *Patent law in Thailand.*

673 *Id.*

for study visits while the drafts were being considered by the Office of the Council of State.[674] After another coup d'état in 1958, the new government commanded the revisions of Thai laws, including the law to protect inventions. The drafts previously considered, then, continued. The whole process had been sluggish and wasteful, involving many preparations, such as more facilities, experts, and study visits in foreign countries. More governmental departments were involved in the process amid concern over the disadvantages of patent protection. Almost at the final stage, the drafts were rejected in 1965. They were later submitted and stalled again in 1966. From 1966 to 1970, there were study visits and reviews of the legislative drafts. In 1970, an important conference was held by the Ministry of Commerce to discuss the protection of inventions and industrial designs in Thailand. Many experts in various fields and interested parties participated in the event, reaching a conclusion to establish a registration system for protection under patent law. In 1978, the Ministry of Commerce submitted a legislative draft to the National Assembly.

In 1979, the first Patent Act B.E. 2522 (1979) was enacted,[675] ending the whole saga of legislative developments after more than sixty years from the first initiative in 1913. The rationale behind the law was initially for the country's economic interests and not much caused by foreign pressures. External influences from abroad came later as a form of international commitments. Having acceded to the TRIPS Agreement, Thailand had to amend the Patent Act in 1992 and 1999, respectively. The Patent Act B.E. 2522 (1979) was amended by the Patent Act (No. 2) B.E. 2535 (1992)[676] and the Patent Act (No. 3) B.E. 2542 (1999).[677] The Patent Act (No. 2) occurred primarily due to implementing provisions to comply with WTO obligations. The Patent Act (No. 3) added petty patent protection to the Thai patent regime. The current Thai Patent Act provides three types of patent protection: invention patents, petty patents, and design patents.[678] A detailed discussion of the Thai patent law will be provided in 4.1.4.

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674 *Id*.
675 The Patent Act B.E. 2522 (1979) entered into force on Sept. 12, 1979.
676 The Patent Act (No. 2) B.E. 2535 (1992) entered into force on Sept. 30, 1992.
677 The Patent Act (No. 3) B.E. 2542 (1999) entered into force on Sept. 27, 1999.
678 The term “product designs” was introduced in the Patent Act (No. 2) B.E. 2535 (1992).

In addition to the aforementioned legislation, Thailand joined a number of international agreements and organizations as follows: the Berne Convention in 1931;[679] the World Intellectual Property Protection Organization (WIPO) in 1989;[680] the World Trade Organization (WTO) and the TRIPS Agreement in 1995;[681] the Paris Convention in 2008;[682] the Patent Cooperation Treaty (PCT) in 2009;[683] the Madrid protocol in 2017;[684] and the Marrakesh VIP Treaty in 2019.[685] The Department of Intellectual Property [hereinafter the "DIP"], which is under the supervision of the Ministry of Commerce, is in charge of the Thai IP laws and performs duties related to IP protection in Thailand.[686] The Central Intellectual Property and International Trade Court [hereinafter the "CIPIT court"] is a specialized court hearing civil and criminal cases related to IP infringement and international trade.[687]

4.1.3 Current Legal Framework related to Industrial Design Protection in Thailand

This section demonstrates Thailand's current legal framework related to industrial design protection. Industrial design proprietors can essentially obtain intellectual property protection for their industrial designs under patent, copyright, and trademark laws. The primary legal means for industrial design protection is a design patent law, a subcategory titled "design patents" in the Thai Patent Act.[688] Despite the design patent protection, copyright law plays a critical role in protecting industrial designs in Thailand. The gist of this thesis involves the interface between these two intellectual property regimes for industrial designs, which are design patent and copyright protection.

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679 Thailand became a member of the Berne Convention on July 17, 1931.
680 Thailand became a member of WIPO on Dec. 25, 1989.
681 Thailand became a member of GATT on Nov. 20, 1982, and WTO on Jan. 1, 1995.
682 Thailand acceded to the Paris Convention on May 2, 2008; and it became effective on Aug. 2, 2008.
683 Thailand acceded to the PCT on Sept. 24, 2009. The Treaty entered into force on Dec. 24, 2009, marking the availability of PCT applications.
684 Thailand became party to the Madrid Protocol on Nov. 7, 2017.
685 On Jan. 28, 2019, Thailand acceded to the Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired or Otherwise Print Disabled [hereinafter the "Marrakesh VIP Treaty"]. In Thailand, the Marrakesh VIP Treaty came into force on Apr. 28, 2019.
686 The DIP was established on May 3, 1992.
687 The CIPIT was established on Dec. 1, 1997.
688 Patent Act B.E. 2522 (1979), as last amended by the Act (No.3) which came into force on Mar. 21, 1999 [hereinafter the "Thai Patent Act"].

Before discussing the roles of patent and copyright laws for industrial design protection, this dissertation outlines the role of trademarks in protecting industrial designs. The relationship between industrial designs and trademarks stems from the fact that both forms of intellectual property may share the same subject-matter. Notably, the Trademark Act B.E. 2534 (1991) excluded industrial designs protectable under design patent law from trademark protection.[689] The exclusion was repealed by the Trademark Act (No.2) B.E. 2543 (2000).[690]

Three-dimensional shapes and configurations are eligible for protection under the current trademark law.[691] The law clearly states that a trademark can be in the form of shape or configuration; therefore, there is a possibility of an overlap between trademark protection and design patent protection over the same subject-matter. A three-dimensional design can also become a three-dimensional trademark if it meets legal requirements as prescribed under trademark law. The latest amendment to the Trademark Act provides an opportunity to gain monopoly awards for industrial designs capable of distinguishing goods bearing the trademark from those of others.[692] The Thai Trademark Act requires registration as a prerequisite for protecting all types of marks: trademarks, collective marks, certification marks, and service marks in Thailand since it does not automatically protect marks registered in foreign countries.

Trademark registration requires that a mark must be distinctive inherently or through its use.[693] Shapes and configurations eligible for trademark registration must not stem from the nature of

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689 *See supra* note 668 (prescribing the provision on the exclusion).

690 Thai Trademark Act (No.2) B.E. 2543 (2000), § 4 (stating that the term "mark" means "a photograph, drawing, device, logo, name, word, phrase, letter, numeral, signature, combinations of colors, shape or configuration of an object or any one or combination thereof.").

691 Thai Trademark Act, § 4 (stating that the term "mark" means "a photograph, drawing, device, brand, name, word, letter, manual, signature, combinations of colors, shape or configuration of an object or any one or combination thereof."). *See also* Thai Trademark Act, § 7(10) provides that a distinctive trademark includes "a shape which is not the natural form of the goods or a shape which is not necessary to obtain a technical result of the goods or a shape which does not give value to the goods."

692 Thai Trademark Act, § 4 defines "trademark" as "a mark used or proposed to be used on or in connection with goods to distinguish the goods with which the trademark of the owner of such trademark is used from goods under came another person's trademark."

693 *Id.* § 6 states that "to be registrable, a trademark must (1) be distinctive; (2) not be prohibited under this Act; (3) not be the same as or similar to a trademark registered by another person." *See also* § 8 (providing what are unregistrable as trademarks).

the goods themselves and also must not be "necessary to obtain a technical result of the goods or a shape which does not give value to the goods."[694]

It is worth noting that the Thai Trademark Act does not further elaborate on how three-dimensional trademarks can be registered. Consequently, the applicant should clearly indicate the intention to register a three-dimensional industrial design as a trademark in the application. In addition, showing multiple views of the three-dimensional design in the application is essential.[695] Otherwise, the DIP and the court tend to consider it as applying for a two-dimensional trademark. In the *Coca-Cola* case,[696] the Supreme Court held that the applicant merely sought to obtain trademark registration of the invented picture, which was a two-dimensional mark, and not the shape of the container as a three-dimensional mark. It did not matter whether the applicant intended to apply for a three-dimensional trademark unless it was clearly shown in the trademark application, which did not exist in the case at issue. The Supreme Court did not deny the distinctiveness of the three-dimensional design and ruled that the pictorial representation was registrable for trademark protection.

In many cases, the Supreme Court of Thailand refused to protect a three-dimensional shape as a trademark because it lacked distinctiveness.[697] Although the court recognized that shapes could be protected as a trademark, the distinctiveness standard required for registration is stringent. The right for a registered trademark lasts for ten years from the date of registration and is renewable for every ten years.[698] Hence, industrial designs can obtain perpetual trademark protection as long as the renewal fees are paid under trademark law. A trademark owner must submit and pay for the renewal fee within three months prior to the expiry date; otherwise, it must pay the renewal fee and a surcharge of twenty percent within six months of the expiry date—failure to pay the renewal fee results in the cancellation of trademark registration.[699]

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694 *Id.* § 7(10).
695 *See e.g.*, Thai Trademark Board Decision No. 765/2548 (ruling that the application only shows one-sided pictorial representation of MAGGI bottle and did not suffice for claiming a three-dimensional trademark).
696 Thai Supreme Court Decision No. 630/2551 [hereinafter the "*Coca-Cola*" case].
697 *See, e.g.*, Thai Supreme Court Decision No. 2039/2552 and No. 9240/2554.
698 Thai Trademark Act, § 53.
699 *Id.* §§ 54, 56.

Aside from the trademark protection, there is a provision similar to passing off, which confers the right to sue the person selling a product by deceivingly presenting it as the goods of the owner of an unregistered trademark. The Thai Trademark Act, § 46 states:

> No person shall be entitled to bring legal proceedings to prevent or to recover damages for the infringement of an unregistered trademark.
>
> The provisions of this Section shall not affect the right of the owner of an unregistered trademark to bring legal proceedings against any person for passing off goods as those of the owner of the trademark.

Unregistered trademark owners receive considerably less protection than registered trademark owners. The Thai Trademark Act explicitly prohibits the unregistered trademark owner from filing a lawsuit against the infringer claiming the infringement of trademark rights; the law affords protection of unregistered trademarks against only a deceptive representation of goods as those of others.

Moreover, unregistered trademark owners can seek protection under the Thai Penal Code[700] and the Thai Civil and Commercial Code.[701] Under the Penal Code, a trademark owner can pursue criminal action since it is a criminal offense to forge or imitate trademarks registered in Thailand or other countries.[702] Besides, the Penal Code makes it illegal to use a "name, figure, artificial mark, or wording used in connection with trade or business of another person" with intent to mislead the public as to the origin of the goods.[703] Another option is to claim compensation for injuries caused by a willful or negligent act, a tortious action under the Civil and Commercial Code.[704] The act of infringement can be claimed under § 420, which provides:

> a person who, willfully or negligently, unlawfully injures the life, body, health, liberty, property or any right of another person, is said to commit a wrongful act and is bound to make compensation, therefore.

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700 *See* Thai Penal Code B.E. 2499 (1956) as amended by Act (No. 26), (2017), Title VIII (prescribing offence relating to trade provides criminal sanctions in §§ 272 - 75) [hereinafter the "Thai Penal Code"].

701 Thai Civil and Commercial Code B.E. 2468 (1925) as amended in B.E. 2551 (2008), § 420 [hereinafter the "Thai Civil and Commercial Code"].

702 Thai Penal Code, §§ 271, 273, 274.

703 *Id.* § 272.

704 Thai Civil and Commercial Code, § 420.

To claim the tortious act, the plaintiff has the burden of proof to show that an unlawful act harms the legal rights as prescribed under the law. Therefore, the absence of any legal right creates a vacuum jeopardizing the interests of the industrial design proprietors. Such a situation can occur in the case of industrial designs failing to acquire protection under intellectual property regimes. Unlike the US, Thailand does not provide for trade dress protection. An imitation of industrial designs is also not a violation of any offense under the Trade Competition Act B.E. 2560 (2017).[705] Unlike the Japanese Unfair Competition Prevention Act, the Thai Trade Competition law does not afford protection against slavish imitation.

4.1.4 Protection of Industrial Designs under Thai Patent Law: Design Patents

This section examines the protection of industrial designs under patent law to pave the way for problematic issues related to the interface between design patent protection and copyright protection for industrial designs in Thailand. Similar to the US, Thailand implemented a patent regime for industrial design protection by granting design patents as prescribed in §§ 56-65, a sub-category of the Thai Patent Act.[706]

The Thai Patent Act provides for the design patent requirements, stating that a patent may be granted for "a new design for industry, including handicrafts."[707] The criteria for registration are that a design must be new and industrially applicable. The statutory definition of design patentable subject-matter is set forth in § 3, which states:

> "design" means any form or composition of lines or colors which gives a special appearance to a product and can serve as a pattern for a product of industry or handicraft.[708]

The term "design" encompasses any form or combinations of lines or colors. Such ornamental elements must give a "special appearance" to a "product," but these terms are not further defined in

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[705] The Trade Competition Act B.E. 2560 (2017) came into force on Oct. 5, 2017, which repealed the Trade Competition Act B.E. 2542 (1999).
[706] Thai Patent Act B.E. 2522 (1979), last amended by Act (No. 3) B.E. 2542 (1999); *see supra* note 56.
[707] Thai Patent Act, § 56.
[708] *Id.* § 3.

the Thai Patent Act. The US and Thai patent laws require that the design must involve an article or a product. Unlike the US, however, the Thai Patent Act accords protection to a design that serves as a pattern for handicrafts, but it does not further define the term.

The Thai Patent Act expressly excludes from protection an industrial design contrary to public order or morality.[709] The law also allows for other exclusions later prescribed by a Royal decree.[710]

An eligible applicant must have a qualification as listed in § 14 of the Thai Patent Act:

> (1) being a Thai national or a juristic person having its headquarters located in Thailand;
> (2) being a national of a country party to a convention or an international agreement on patent protection to which Thailand is also a party;
> (3) being a national of a country which allows Thai nationals or juristic persons having their headquarters to apply for patents in that country;
> (4) being domiciled or having a real and effective industrial or commercial establishment in Thailand or a country party to a convention or an international agreement on patent protection to which Thailand is also a party.[711]

As regards the right to apply for design patents, employers or commissioners have the right to apply for design patents in cases where the designs are made by their employees during the employment or contracts for making the works, unless the contracts state otherwise.[712] This rule also applies to cases where "an employment contract does not require an employee to exercise any inventive activity, but the employee has made the invention using any means, data or report that his employment has put at his disposal."[713] In this regard, the employee has the right to receive remuneration.[714]

Thailand adopts a first-to-file system for patent applications of invention patents, petty patents, and design patents,[715] which means a patent is granted to the applicant who filed the

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[709] *Id.* § 58 ("The following are unpatentable:—(1) designs that are contrary to public order or morality; (2) designs prescribed by a Royal Decree."). *See also* Thailand's Department of Intellectual Property [hereinafter the "DIP"] arranged a guideline providing examples of what constitutes the ineligible designs and distributed on its website.

[710] *Id*. § 58(2).

[711] *See supra* 4.1.2 (describing about the international agreements to which Thailand is a party).

[712] Thai Patent Act, § 11, which is also applied to design patents by virtue of § 65:

[713] *Id.*

[714] *Id.* § 12 ("In order to promote inventive activity and to give a fair share to the employee in the circumstances provided for in the first paragraph of Section 11, the employee-inventor shall have a right to remuneration other than his regular salary if the employer benefits from the invention.").

[715] *Id.* § 16.

application first.[716] The design patent applicant can also claim the right of priority under the Thai Patent Act, § 60*bis* states:

> A person under Section 14 who has filed a patent application for a design in a foreign country may claim the first foreign filing date as the filing date in the country if the application is filed in the country within six months following the first filing date in the foreign country.[717]

Thailand protects the right of priority for the first foreign filing made within six month period before filing a design patent application. An industrial design proprietor can claim the first foreign filing date as the filing date of a design patent application in Thailand, provided that the application is filed in Thailand within six months from the first filing date. Accordingly, the novelty of the industrial design is not destroyed by the first foreign filing, or any disclosure made during the six months because the Thai design patent law recognizes the priority right of an industrial design proprietor. The six month period of priority right enables industrial design proprietors to later file for design patent protection in Thailand after the first foreign filing without destroying the novelty of the industrial designs.

The novelty is the utmost essential requirement for industrial designs to be protected under patent law. Section 57 provides that a design is not new in the following cases:

> (1) a design which was widely known or used by others in this country before the filing of the application for a patent.
> (2) a design which was disclosed or described in a document or a printed publication in this or a foreign country before the filing of the application for a patent.
> (3) a design which was published under Section 65 and Section 28 before the filing of the application for a patent.
> (4) any design so nearly resembling any of the designs prescribed in (1), (2) or (3) as to be an imitation.[718]

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[716] *Id*. § 77*sexies*(1) ("the applicant who is the first to file for a patent or petty patent shall be entitled to a patent or petty patent").
[717] *Id.* § 60*bis*.
[718] *Id.* § 57.

The novelty requirement is satisfied when a design is widely known or used in Thailand and is not disclosed, described, or printed anywhere before filing an application;[719] it must also not be identical or substantially similar to any of those designs. A further interpretation of the novelty requirement is that a design must be substantially different from designs that are commonplace.[720] Although the court's interpretation of novelty appeared similar to the non-obviousness requirement of the US design patent law, the non-obviousness requirement is not the statutory requirement for protection. In the *Fish Tank* case,[721] the novelty of a lamp for a fish tank was contested. The Thai Supreme Court believed the testimony of the patent examiners indicating that they conducted a substantive examination and found that the design was not similar to any design widely known or used in Thailand or registered as a design patent in the US database. The defendant also successfully showed a definite improvement of the design that essentially differed from the prior arts.

A design patent grants exclusivity to the design patentee in exploiting the protected designs as claimed. The scope of exclusive rights does not extend to designs that are not claimed in the patent application. The claim construction is of utmost importance to design patent infringement. For example, if the application claims only a configuration of an article, the protection does not cover patterns or colors of the article, albeit their presence.[722] The Thai Patent Act, § 63 states:

> No one has the right to use the patented design in the manufacture of a product or to sell, have in possession for sale, offer for sale or import a product, embodying the patented design, except the use of the design for the purpose of study or research.[723]

The design patent rightsholder can claim against any person who infringes the design patent rights by using the patented design to make a product, or selling, processing for sale, offering for sale, or

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[719] There are differences between design patents and invention patents due to exceptions of disclosures in § 6 paragraph 2 of the Thai Patent Act ("A disclosure which was due to, or made in consequence of, the subject matter having been obtained unlawfully, or a disclosure which was made by the inventor, or made in consequence of, the inventor displaying the invention at an international exhibition or an official exhibition if such disclosure was done within twelve months before the filing of an application for the patent, shall not be deemed to be a disclosure under subsection (2) above.").

[720] *See, e.g.*, the Thai Supreme Court Decision No. 5341/2553 (holding that the design of a jug applied for a design patent was similar to a human ear and marginally different from other jugs commonly sold in the market. Hence, it did not satisfy the novelty requirement).

[721] Thai Supreme Court Decision No. 12602/2555.

[722] *See, e.g.*, the Thai Supreme Court Decision No. 1822/2543.

[723] Thai Patent Act, § 63.

importing a product embodying the patented design. A statutory exception to design patent infringement is in cases where the designs are used for "the purpose of study or research."[724] The kind of actions qualifying for the exception lies with the judicial interpretation because the Thai Patent Act provides no further explanation. Civil remedies and criminal sanctions are available as enforcement mechanisms for design patent infringement.[725] Design patents protect designs as claimed in the registration, regardless of whether the designs function as source identifiers. Once registered, a design patent lasts for ten years from the filing date of the application.[726]

In addition to invention patents and design patents, Thailand has a system of petty patents that can be comparable to utility models in other countries. The subject-matter of petty patents is an invention, not a design.[727] Petty patents protect technical inventions which may not surpass the inventive step required for invention patents. The requirements for petty patent registration are less stringent than those for invention patents because it merely needs an invention to be new and industrially applicable.[728] A substantive examination is not a prerequisite to the protection, but the application must comply with formalities and administrative requirements.[729] Within one year after the grant of a petty patent, any interested person can request for an examination regarding whether the protection requirements are satisfied.[730] A petty patent has a term of protection up to a maximum of 10 years. The first term is six years from the filing date, and an extension is possible twice, each time for two years.[731] Importantly, the Patent Act explicitly precludes cumulative protection between "a petty patent and a patent for the same invention."[732]

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[724] *Id*.
[725] *Id.* §§ 81-2, 84-5 & 87-8.
[726] *Id*. § 62.
[727] *Id.* § 3 ("'[P]etty patent' means a document issued to grant protection for an invention.").
[728] *Id.* § 65*bis*.
[729] *Id.* § 65*quinquies* (providing that before granting a petty patent, the patent office only examines whether a claimed invention is patentable subject-matter and whether the application complies with administrative rules).
[730] *Id.* § 65*sexies*.
[731] *Id.* § 65*septies*.
[732] *Id.* § 65*ter*.

4.1.5 Protection of Industrial Designs under Thai Copyright Law: Copyright of Works of Applied Art

In Thailand, copyright protection is available for industrial designs if they qualify as copyrightable artistic works. Under the Thai copyright law, "copyright means the exclusive right to do any act according to this Act with respect to the work created by the author."[733] Section 6 of the Act provides:

> Copyright subsists in works of authorship, namely, literary works, dramatic works, artistic works, musical works, audiovisual works, cinematographic works, sound recordings, broadcasts or any other work in the literary, scientific or artistic field, regardless of the method or form in which such works are expressed.[734]

The list of copyrightable works is non-exhaustive because the provision encompasses "any other work in the literary, scientific or artistic field." The Thai Copyright Act expressly lists and defines some copyrightable works, including literary works, dramatic works, artistic works, musical works, audiovisual works, and cinematographic works. Copyright does not subsist in "ideas or procedures, processes or systems, or methods of use or operation, or concepts, principles, discoveries, or scientific or mathematical theories."[735] Simply put, copyright protects expressions of ideas, not ideas. The Thai Copyright Act lists what cannot be copyrightable works as follows:[736]

> (1) news of the day and facts, having the character of mere information, which are not works in the literary, scientific or artistic field;
> (2) the constitution and legislation;
> (3) regulations, rules, notifications, orders, elucidations, and official correspondence of the Ministries, Bureaus, Departments or any other governmental or local agency;
> (4) judgments, orders, judicial decisions and official reports;
> (5) translations and compilations of subsection (1) to subsection (4) which are commissioned by Ministries, Bureaus, Departments or any other governmental or local agency.

733 Thai Copyright Act, § 4.
734 *Id.* § 6.
735 *Id.*
736 *Id.* § 7.

Regarding the expression of ideas protectable by copyright, the Thai Copyright Act does not specify the fixation requirement; hence, the expressions of ideas may be in any form. As with other countries, copyright subsists in a work automatically upon the creation of the work.

The statutory definition of an "artistic work" is described as "a work which has one or more of the listed characteristics."[737] There are seven categories of the works listed: 1) a work of painting or drawing, 2) a sculptural work, 3) a lithographic work, 4) an architectural work, 5) a photographic work, 6) a work of illustration meaning a map, a structure, a sketch, or a three-dimensional work regarding geography, topography or science, and 7) a work of applied art.

The Thai Copyright Act further elaborates on each category of artistic works. For instance, a work of painting or drawing includes "a creation of shape which is composed of either lines, lights, colors, or any other thing, or the combination thereof upon one or more materials."[738] A sculptural work means "a creation of a figure concerning tangible volume."[739] A lithographic work means "a creation of picture by printing process and includes a printing block or plate used in the printing"[740] An architectural work means "a design of a building or a fixed structure, an interior or exterior design of a building or a fixed structure as well as a design of an area of a building or a fixed structure, or a creation of a model of a building or a fixed structure."[741] A photographic work "means a creation of picture with the use of image-recording apparatus which allows the light to pass through a lens to a film or glass and developed with a liquid chemical of specific formula or with any process that creates a picture or an image-recording with any other apparatus or method."[742] A work of illustration means a map, a structure, a sketch, or a three-dimensional work regarding geography, topography, or science.[743]

A work of applied art is the last category listed under the definition of artistic works. Section 4(7) of the Thai Copyright Act states:

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[737] *Id*. § 4.
[738] *Id*. § 4(1).
[739] *Id*. § 4(2).
[740] *Id*. § 4(3).
[741] *Id*. § 4(4).
[742] *Id*. § 4(5).
[743] *Id*. § 4(6).

> work of applied art which means a work which takes each or a composition of the works mentioned in (1) to (6) for utility apart from the appreciation in the merit of the work such as for practical use of such work, for decorating materials or appliances or for commercial benefits.[744]

The term "work of applied art" is broadly defined as referring to a work that has a composition of any of the artistic works listed under the Thai Copyright Act[745] and that, in addition to the appreciation of the merit in the artistic work, has a utilitarian purpose. Examples of utilitarian purposes listed are practical uses, decorations, and commerce uses. According to the prescribed characteristics, artistic works protected under the Thai Copyright Act can be roughly classified as works of pure art and applied art. The Thai Copyright Act further specifies that artistic value[746] is not required as a criterion for artistic works and that artistic works include photographs and diagrams of such works: a photograph of a painting, and an architectural plan, for instance, are considered to be artistic works as defined in the Thai Copyright Act.[747] In other words, the definition of works of applied art emphasizes that the characteristic of the work must have both artistic and utilitarian aspects and that the artistic aspect, which qualifies as an artistic work under the Thai Copyright Act, does not require to have any aesthetic beauty.

Copyright subsists in an original work of authorship expressed through a tangible medium since only the expression of ideas, and not the idea is protected under copyright law. The standard criteria for determining the originality of work are undefined and unclear under the Thai Copyright Act. The statutory definition of "author," which states, "a person who makes or creates any copyrightable work,"[748] is sometimes used to denote the requirements for protection. This provision infers that a copyrightable work must be the author's own creation derived from his or her skill and labor. Nevertheless, the Thai court interpreted the original work of authorship standard and the copyrightability of works differently. In the *Water filter* case,[749] the Thai Supreme Court held that

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744 *Id.* § 4(7).
745 *Id.* § 4(1)-(6).
746 The term "artistic value" refers to the aesthetic merit or the beauty of a work, denoting the judgement of quality of artworks. The Thai Copyright Act protects artistic works, including works of applied art even though they are not artistically beautiful.
747 *Id.* § 4.
748 *Id*. § 4.
749 Thai Supreme Court Decision No. 5306/2550 [hereinafter "*Water filter*"].

copyright subsisted in the expressed information about the product designs. For instance, the numbers showing the water filter performance and the pictures of the water-filter designs were protected by copyright because the works were originally and independently created as a result of the plaintiff's knowledge, skills, labors, and experiences. The plaintiff did not imitate other works, and it did not matter whether the works had good quality or aesthetic merit. In the *Brass sculpture* case,[750] the Supreme Court held that a brass sculpture was not a work of the author's own creation because it was modeled after a natural occurrence and imitated from others' ideas. The level of skill and labor was, thus, a criterion in determining the copyrightability of a work. In the *Drug label* case,[751] the court held that the drug label was not copyrightable because it exhibited little effort in the skill and labor of the creator. A new work arrangement was not copyrightable in the *Public road map* case;[752] the plaintiff failed to claim copyright protection in a collection of road maps of Thailand. The court reasoned that the road maps were publicly available, and both ornamental and non-ornamental features added to the work were not substantial modifications.

A work satisfies the originality requirement if it is the expression of an idea exhibiting a characteristic that is not a copy or an imitation of other existing works and that the author uses their own skill and labor to create such work. In *Snoopy dog*,[753] the court applied a threshold standard similar to a distinctiveness requirement of trademarks to determine whether the work was a copyrightable subject-matter and held that a drawing of *Snoopy*, a cartoon character, is not merely a drawing of a dog: it was an intellectual creation resulting from the artist's creative effort. The *Snoopy* dog had a distinctiveness that differs from an ordinary dog; hence, it was challenging to create an identical drawing accidentally by different authors. The court, then, found copyright infringement in this case. In essence, case law demonstrates that copyrightable works are: 1) works originating from the creator's skill and labor, 2) works that are not similar to commonly known works, and 3) works that are not a mere imitation of other works.

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750 Thai Supreme Court Decision No. 6182/2533 [hereinafter "*Brass sculpture*"].
751 Thai Supreme Court Decision No. 876/2496 [hereinafter "*Drug label*"].
752 Thai Supreme Court Decision No. 4486/2539 [hereinafter "*Public road map*"].
753 Thai Supreme Court Decision No. 4026/2524 [hereinafter "*Snoopy dog*"].

Copyright vests in the creator of the copyright work.[754] Employees have copyright in their works created in the course of employment unless otherwise agreed in writing while "the employer has a right to communicate such work to the public in accordance with the purpose of the employment."[755] On the contrary, a commissioner has copyright in a work created on commission "unless the author and the commissioner have agreed otherwise."[756]

Under the Thai Copyright Act,[757] a copyright owner has the exclusive rights for the following acts.

> (1) reproduction and adaptation;
> (2) communication to the public;
> (3) rental of the original or the copies of a computer program, an audiovisual work, a cinematographic work, and a sound recording;
> (4) giving benefits accruing from copyright to other persons;
> (5) licensing the exclusive rights in (1) to (3) to other persons "with or without conditions, provided that such conditions shall not be prescribed in such a way which unfairly restricts competition.[758]

The Act further stipulates that the Ministerial Regulations will provide rules in determining whether the licensing unfairly restricts competition.[759]

The Thai Copyright Act defines "reproduction" as meaning "any means of copying, imitating, duplicating, molding…an original work or a copy or a publication of any substantial part of the work, whether in whole or in part."[760] The term "adaptation" includes "a reproduction by means of transforming, modifying or replicating a substantial part of an original work without any manner of creating a new work, whether in whole or in part."[761] In the case of artistic works, an adaptation includes "a conversion from a two-dimensional work or a three-dimensional work into a three-dimensional work or a two-dimensional work or the making of a model of an original work."[762]

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754 Thai Copyright Act, § 8 (providing details about copyright ownership).
755 *Id*. § 9.
756 *Id.* § 10.
757 *Id.* § 4.
758 Thai Copyright Act, § 15.
759 *Id*.
760 *Id*. § 4.
761 *Id*.
762 *Id*.

In addition to the economic rights, moral rights are available under the Thai Copyright Act. Section 18 of the Thai Copyright Act provides as follows:

> [A copyright owner has] the right to claim authorship of the work and the right to prohibit the assignee or any person from distorting, abridging, adapting or doing anything detrimental to the said work which would be prejudicial to the reputation or honor of the author. When the author has died, the heir of the author has the right to take legal action for the enforcement of his rights throughout the term of copyright protection, unless otherwise agreed in writing.[763]

The copyright owner has moral rights, which are the right to attribution and the right to integrity, in copyrighted works. The right to attribution is the right to be identified as the creator of the work, while the right to integrity is the right to object against derogatory treatments of the work. Moral rights do not end when the copyright owners die because their heirs can take legal actions against persons who violate the moral rights before the copyright term expires.

The Thai Copyright Act affords the same package of the exclusive rights to works of applied art as to other artistic works. Nevertheless, copyright protection for works of applied art lasts for twenty-five years after the creation of the work or the first publication of the work,[764] whereas other artistic works generally enjoy the lengthier exclusivity for the life of the creator plus fifty years *post mortem auctoris* (after the creator's death).[765]

In practice, industrial design proprietors may obtain a certificate of copyright recordation by filing an application with the DIP.[766] However, the recordation of copyright is not compulsory since it serves merely as evidence of copyright ownership.

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763 *Id.* § 18.

764 *Id.* § 22 ("Copyright in a work of applied art shall last for twenty five years after the creation of the work; but if the work has been published during such period, copyright shall last for twenty five years after the first publication of the work.").

765 *Id.* § 19 (stating also that "in the case of a work of joint authorship, copyright shall last for the life of the joint authors and fifty years after the death of the last surviving author; [i]n the case where the author or all joint authors die prior to the publication of the work, copyright shall last for fifty years after the first publication of the work; [i]n the case where the author is a juristic person, copyright shall last for fifty years after the creation of the work but if the work has been published during such period, copyright shall last for fifty years after the first publication of the work."); *see also id.* § 20 (stating that in the case of a pseudonymous or anonymous author, "copyright shall last for fifty years after the creation of the work; but if the work has been published during such period, copyright shall last for fifty years after the first publication of the work.").

766 The electronic filing system is available via the DIP's website.

4.2 The Interface between Design Patents and Copyright for Industrial Design Protection: A Case Study of Thailand

The protection of industrial designs under patent and copyright laws provokes a debate about overlapping protection for industrial designs in Thailand. This section analyzes legal and practical situations related to the interface between design patent protection and copyright protection for industrial designs in Thailand. Then, this section discusses problems associated with the protection of industrial designs under patent law to ascertain whether the design patent regime adequately protects industrial designs, establishing a foundation for possible resolutions, as will be proposed in chapter 5.

4.2.1 Analyzing Legal Situations related to Industrial Design Protection under Design Patent and Copyright Laws

As previously discussed, industrial designs have the privilege of obtaining more than one intellectual property protection; hence, the interface between design patents and copyright brings about legal complications and paradoxical situations. In Thailand, there are overlaps between design patent protection and copyright protection since industrial designs registrable under patent law for design patent protection may also qualify as "works of applied art" protectable under copyright law. In addition, there is no explicit provision stipulating the relationship between design patents and copyright concerning the protection of industrial designs. The loophole can lead to an avoidance of law in a situation where industrial design proprietors choose not to register for design patents and instead rely on copyright protection. The industrial design proprietors may lose a chance to obtain design patent protection because they do not file a design patent application soon after creating industrial designs, and the novelty of industrial designs is destroyed.

There is no explicit legal provision regulating overlapping protection at the statutory level: neither copyright nor patent law expressly prohibits concurrent protection between copyright and

design patents.[767] The lack of provision regarding the interface between design patents and copyright for industrial design protection leads to legal uncertainty about overlapping protection between both regimes.[768] When a dispute about cumulative protection arises, the CIPIT court and the Thai Supreme Court play a critical role in resolving the issue. The criteria for determining whether cumulative protection should be permissible vary on a case-by-case basis. Such a practice leads to inconsistency and legal uncertainty regarding cumulative protection by design patents and copyright, which can be detrimental to all stakeholders. A negative consequence of the unregulated cumulative protection is that it allows for design patent protection to be neglected. Design patent protection is prone to be underutilized due to the disadvantages of the patent regime as compared to the copyright regime. An example disadvantage is that the term of design patent protection lasts for only ten years from the date of filing,[769] whereas copyright protection of works of applied art lasts for twenty-five years after the creation of the work or the first publication of the work.[770] There are also ambiguities in legislation and case law. These elements can thus be discouraging for the proprietors of industrial designs to exploit the design patent regime.

The legal and practical situations demonstrate problems of the current protection regime for industrial designs in Thailand. Both legal and practical situations are caused by the legal frameworks and policy choices adopted in Thailand for industrial design protection.

4.2.1.1 Subject-matter eligibility

The principal contributor to the interface between design patent protection and copyright protection is a broad range of subject-matter protectable under patent and copyright laws. As examined

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[767] There is merely a provision barring cumulative protection between an invention patent and a petty patent for the same invention (Thai Patent Act, § 65*ter*). There is no provision stating about cumulation between invention patents and design patents; in essence, there will be no overlap for the same elements since both types of patents protect different subject-matter: a design patent does not protect ideas or methods which are subject to an invention patent.

[768] *See* 4.1.1 (describing that Thailand adopted non-cumulation in the past, demarcating subject-matter protectable under design patent and trademark laws).

[769] Thai Patent Act, § 62.

[770] Thai Copyright Act, § 22.

in 2.4.2, a cause of overlapping protection stems from the expansive scope of subject-matter and obscure wording described in the statutory definitions under copyright and patent laws.

(i) Copyrightable subject-matter

According to the definition of artistic works, there are possible overlaps between copyrightable subject-matter and design patentable subject-matter in the category of a painting or a drawing and a sculptural work.[771] A drawing that is a copyrightable artistic work is a two-dimensional design protectable under design patent law. Two-dimensional designs such as lines and colors defined as "design" protectable under patent law are a composition of a work of painting or drawing, which is a copyrightable artistic work.[772] Such designs applied on an industrial article in three-dimensional form may qualify as "a creation of a figure concerning tangible volume," which is a sculptural work protectable under copyright law.[773] The inclusion of diagrams of the listed artistic works as artistic works[774] also causes a possible overlap with design patentable subject-matter since a diagram is a graphic design or a line of drawing that explains something.[775]

Central to the overlapping protection between design patents and copyright is the existence of copyrightable works of applied art. In several countries, a separate category of works of applied art does not clearly exist under copyright law. The term "works of applied art" does not appear in the US Copyright Act 1976. Instead, it adopts the term "useful articles" to define articles possessing "an intrinsic utilitarian function that is not merely to portray the appearance of the article or to convey information."[776] In other words, the US Copyright Act 1976 accentuates the purpose rather than the characteristics of articles in categorizing them under the realm of copyright protection. By contrast, the Thai Copyright Act categorizes copyright works according to their characteristics: works of art

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771 *See supra* 4.1.5 (describing on artistic works protectable under the Thai Copyright Act).
772 Thai Patent Act, § 3, *supra* note 708 (describing the provision).
773 Thai Copyright Act, § 4(2).
774 *Id.* § 4.
775 *Diagram*, MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/diagram (last visited May 1, 2021.
776 17 U.S.C. § 101 (2012).

covers merely works of pure art, such as paintings, drawings, and engravings whereas works of art applied for utilitarian purposes are categorized as "works of applied art."

Under the category of works of applied art, there are several possibilities that works having artistic features become works of applied art. As a result, the copyrightable subject-matter in a category of works of applied art can overlap with the design patentable subject-matter. As examined earlier in 4.1.5, the statutory definition of works of applied art encompasses ornamental elements in industrial designs. For instance, the shape of a product is a three-dimensional design protectable under patent law and may qualify as a work of applied art or even a sculptural work protectable under copyright law.[777] One of the most common occurrences is that there is a transformation of a two-dimensional work of art into a three-dimensional work of applied art. A drawing of a chair can be a work of art and the shape of the chair can be a work of applied art. The chair's design may be protectable under patent law since it is a "design" used for a product of industry, provided the design gives a special appearance to the product and satisfies the novelty requirement.[778]

The main criterion of acquiring the status of applied art is to use an artistic work for any purpose other than the one inherently created for it, which is to merely please the eyes. The division of the category of art brings about an issue as to whether and to what extent designs manufactured industrially for a practical purpose should be protected under copyright law. Case law demonstrates that the Thai Supreme Court was inconsistent in determining the categories of copyrightable works. In the Thai Supreme Court Decision No. 3045/2551,[779] the court held that the defendant was liable for copyright infringement on the work of drawing or painting of *Doraemon,* the popular Japanese cartoon character: the counterfeit goods were kids' t-shirts embodying the *Doraemon* design. The term of the protection of works of art related to *Doraemon* lasted for fifty years after the first publication of the work.[780] In this case, copyright infringement occurred when thirty years had passed from the first

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[777] *See, e.g.*, Thai Supreme Court Decision No. 6379/2537 [hereinafter "*Lancer pens*"] (holding that the design documents depicting the pen were copyrightable drawings and paintings, the molds of the pen were copyrightable sculptural works, and the designs of pen were copyrightable works of applied art).

[778] *See supra* 4.1.4 (providing details about design patent protection in Thailand).

[779] *See also* Thai Supreme Court Decision No. 3093/2553 (ruling similarly as in the *Doraemon* case).

[780] Thai Copyright Act, § 19, *supra* note 765 (providing details about the copyright terms).

publication of the work in Thailand (December 1, 1969).[781] The copyright of *Doraemon* was then enforceable by the copyright owner, Fujiko F. Fujio Pro Co., Ltd., until the copyright expired at the end of 2019.[782]

In contrast, in the Thai Supreme Court Decision No. 5756/2551, the court ruled that copyright infringement occurred to the copyrightable works of applied art, which were clothing and apparel embodying the design of *Doraemon*. However, the defendant was not liable for copyright infringement because the twenty-five-year term of protection for works of applied art already expired at the end of 1994: the sale of counterfeit products occurred on August 3, 2006 when the period of twenty-five years from the first publication of the work had passed.[783] The court's rulings affirm that the determination of the category of work matters a great deal to the level of protection afforded under the Thai copyright law. However, there is no clear standard prescribed in legislation, and the judicial determination appears arbitrary, leading to legal uncertainty about the issue.

Under the Thai Copyright Act, works of applied arts are copyrightable artistic works, but they are subject to a shorter term of protection than other artistic works. For this reason, the proprietors of the works normally would rather not have their works qualify as works of applied art. However, the broad definition of works of applied art may encompass their works. An artistic work can easily qualify as a work of applied art if it has any utilitarian purpose apart from its artistic appreciation.[784] It is true that the scope of a work of applied art is limited in the sense that a work must have at least one composition of an artistic work listed in the provision to qualify as a work of applied art.[785] This issue would not be problematic, however, if an artistic element of the work has a characteristic qualifying as a copyrightable artistic work. Some applied works may not contain a characteristic of any artistic

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781 The term of protection originally lasted for thirty years under the old copyright laws; however, the court held that the new term applied to the case, pursuant to the Copyright Act.

782 *See* Thai Copyright Act, § 25 ("When the term of copyright protection expires in any year, if the expiry date of the term of copyright protection is not the last day of the calendar year or the exact expiry date is not known, copyright shall last until the last day of that calendar year.").

783 *Id.* § 22.

784 *Id.* § 4(7), *supra* note 744.

785 *Id.* § 4, *supra* note 26 (describing the listed works); *see supra* 4.1.5 (describing the characteristics of the listed works)

work as listed; therefore, they are at risk of failing to be protected under copyright law.[786] Nevertheless, such a situation is not common since many works that are involved in disputes tend to have some artistic elements and easily fall within the definition of works of applied art.

An important cause for overlapping protection is the term "practical use" in the definition of works of applied art, which includes any utilitarian purpose and infers that works of applied art are copyrightable even if they are functional industrial designs. In other words, copyright may subsist in an industrial design qualifying as a work of applied art regardless of its functional features dictating the artistic features in it. This legal situation is contrary to copyright protection of useful articles or industrial designs in many countries that do not protect the functional features or exclude functional industrial designs from copyright protection. As discussed in chapter 3, the US copyright law restricts the protection of useful articles that satisfy the useful articles doctrine,[787] protecting PGS works that "can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the article."[788] The Thai Copyright Act does not further elaborate on what constitutes the term "practical use" and how the term functions in the scope of copyright protection as in the US copyright law. Therefore, it leads to the overprotection of industrial designs since industrial designs are inherent articles for "practical use," and the majority of them embody some artistic element as listed in the definition of works of applied art.

Another factor causing overlapping protection stems from the phrase "decorating materials or appliances," which indicates that works of applied art cover "design" protectable under patent law since a design patent protects a new design applied industrially. Works of applied art composed of artistic works for decorating materials or appliances are, for instance, artworks applied to or embodied in tangible objects. These types of works are designs applied industrially and therefore overlap with design patentable subject-matter.

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[786] Some of the Thai traditional textile designs fail to qualify as copyrightable works of applied art due to, for instance, the process of making the design that is not regarded as an artistic work listed in the Thai Copyright Act, raising doubt about inadequate legal protection for industrial designs under copyright law. *See* Thaweepreut Sirisakbanjong & Shoosheewan Tamisanon, *Copyright in Thai Silk Works : Study about Thai Silk Works in Surin Province*.

[787] *See supra* 3.3.3.1 (providing details about the useful articles doctrine).

[788] 17 U.S.C. § 101; *see supra* 605 (quoting the provision).

Moreover, the term "commercial benefits" in the statutory definition of "works of applied art" becomes a factor in categorizing subject-matter as works of applied art. Artistic works used for commercial benefits can be categorized as works of applied art if they are formed by one of the listed artistic works for any other use apart from an appreciation of the artistic work. Consequently, it contributes to overlapping with design patentable subject-matter since a design patent protects designs applied industrially, which means that they are typically manufactured for commercial use. Put simply, designs protectable under patent law have a hidden notion of being made for commercial benefits. The term "product design" is also used interchangeably with the term "industrial design" to refer to subject-matter protectable under patent law. Hence, the reference to commercial benefits in the definition of works of applied art would lead to the overlap with the design patent regime. The wording does not appear in the US copyright law under the useful articles doctrine, which deals with the protection of works having some utility. It is understandable that the term "commercial benefits" stemmed from the wording in Article 26.1 of the TRIPS Agreement[789] and that the Thai legislature intended to elaborate on what kind of uses are covered by the design patent right. Nevertheless, the phrase unnecessarily causes possible confusion to industrial designs because industrial designs have the inherent nature to be commercially viable: the mass production of industrial designs provides such evidence. The term "commercial benefits" would strongly serve the purpose of allowing industrial designs to be qualified as copyrightable works of applied art, which are protected for a shortened term of copyright protection under the Thai Copyright Act.[790]

Even though the definition of "works of applied art" indicates that there are both artistic and functional features in an article, such a combination never leads the court to apply the separability test as in the US. The embodiment of an artistic work only serves as a condition for a utilitarian work to be in a separate category called "works of applied art." Functional features are completely ignored in the definition, which vaguely mentions utility by giving examples of utility. Those phrases are

[789] TRIPS Agreement, art. 26.1 provides industrial design rightsholders the exclusive right to "prevent third parties not having the owner's consent from making, selling or importing articles bearing or embodying a design which is a copy, or substantially a copy, of the protected design, when such acts are undertaken for commercial purposes."

[790] *See* Thai Copyright Act, § 22, *supra* note 764.

described to simply mean that the functional aspects do not matter to determine the legal status of works of applied art under copyright law. As a result, the whole utilitarian articles are copyrightable works of applied art even if the artistic features cannot be separable from the functional ones and even if the artistic features are solely or essentially dictated by the functional ones.

Compared to the US, Thailand has more cases of overlaps between protectable subject-matter under copyright and patent laws. Although both countries afford protection to useful articles, there are many differences with respect to conditions for protection. Unlike the US copyright law, the Thai Copyright Act does not restrict copyright protection to only a "useful article"[791] that is in the category of PGS works and does not require that the artistic features must be identified separately and capable of existing independently from the utilitarian aspects of the article.[792] Accordingly, the Thai Copyright Act provides a broader scope of subject-matter qualifying as works of applied art: the provision covers any work for practical uses, decorations, or commercial uses. The artistic features required to be copyrightable artistic works are also not restricted to PGS works. Consequently, any useful articles and industrial designs can qualify for copyright protection in Thailand, provided the artistic features qualify as artistic works irrespective of their aesthetic values. One thing is clear; US Congress expressly demonstrated the intention to "construct elaborate mechanism to differentiate protectable 'applied art' from unprotectable 'industrial design.'"[793] The same can be said for the UK; the CDPA 1988 excludes surface decoration from subject-matter protectable under UK unregistered design right, implicitly directing the proprietors of two-dimensional industrial designs to the copyright regime. In other words, the UK design law clearly stipulates that surface decoration is the exclusively copyrightable subject-matter and not eligible subject-matter for the UK unregistered design protection.[794] By contrast, the threshold standards for copyrightable subject-matter as works of applied art are inordinately lenient in Thailand.

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[791] 17 U.S.C. § 101 (1976) (stating that a useful article is "an article having an intrinsic utilitarian function that is not merely to portray the appearance of the article or to convey information.").

[792] *See supra* 4.1.5 (providing details about the copyrightability of industrial designs in Thailand).

[793] Robert C. Denicola, *Applied Art and Industrial Design: A Suggested Approach to Copyright in Useful Articles*, 67 MINN. L. REV. 707, 708 (1983).

[794] CDPA 1988, § 213(3)(c) ("design right does not subsist in surface decoration.").

(ii) Design patentable subject-matter

A factor causing the regime clashes between design patents and copyright is the design patentable subject-matter. The statutory definition of design patentable subject-matter raises doubts about subject-matter eligible under patent law. The legal definition of "design" laid down in § 3 of the Thai Patent Act is not well determinative of what can be a patented design.[795] Compared to the term "design" as defined in the EU's Design Regulation, the Thai definition manifests some obscurity and a narrow sense of the eligible designs. This is contrary to the EU definition of "design" defined broadly in the Design Regulation.[796]

As for the US, Congress sets forth that "any … design for an article of manufacture"[797] can be design patentable subject-matter.[798] The statutory definition of "design" as defined in the Thai Patent Act is obscure and inadequate. It is pivotal to clearly define the term "design" eligible for design patent protection to eliminate any confusion regarding the application of the law, which can impact the scope of protection.[799]

Copyrightable subject-matter listed under the Thai Copyright Act is not exhaustive: copyright also subsists in "any other work in the artistic field, regardless of the method or form in which such works are expressed."[800] The wording leads to more possibilities of overlaps with subject-matter protectable under patent law.

According to § 3 of the Thai Patent Act, it is questionable whether designs not expressly included within the definition are design patentable subject-matter. For example, designs generated by new technologies, such as Graphic User Interfaces (GUIs), are in a doubtful state about their eligibility for design patents. When applying the visibility test adopted by the US court, GUIs may pass the test because it is visible during normal and intended use, albeit being invisible when shutting down the device hosting GUIs. The EU Community design legislation specifically includes the protection of

795 The Thai Patent Act, § 3; *see supra* note 708 (referring to the provision).
796 *See supra* 3.1.2.2(i) (discussing detailed descriptions of protectable subject-matter in the EU).
797 35 U.S.C. § 171(a) (Supp. I 2013).
798 *See* Burstein, *The "Article of Manufacture" in 1887*, *supra* note 558 at 7-8.
799 SUTHERSANEN, LEGAL REVIEW ON INDUSTRIAL DESIGN PROTECTION IN EUROPE, *supra* note 38, at 13.
800 Thai Copyright Act, § 6.

visible features embedded in a complex product only if the component parts are visible during normal use of the product. The Thai Patent Act is unclear about the visibility issue.

A significant factor contributing to an overlap concerns artistic value; the Thai Copyright Act does not require that a work of applied art has artistic value even though it must have the element of an artistic work.[801] At the same time, a design patent affords protection for the ornamental element regardless of the aesthetic merit therein. Hence, a vast number of industrial designs can qualify as works of applied art while they are also design patentable subject-matter. This is opposite to the situation in countries implementing partial cumulation that takes into consideration aesthetic merit in determining the copyrightability of an industrial design.

Furthermore, the eligibility of design for handicrafts leads to an overlap of protection between design patents and copyright over the same subject-matter. The Thai Patent Act defines the term "design" as including designs for handicrafts as design patentable subject-matter.[802] There is no provision elaborating the meaning of handicrafts in the context of design patent protection. When interpreted generally, handicrafts encompass a wide range of works made by hand or using simple methods but do not include products massively produced. Even so, it is not a clear-cut definition as to whether a mass production of handicrafts eliminates their eligibility under patent law. On the other hand, handicrafts may qualify as works of art or works of applied art under copyright law. An overlap, therefore, occurs between copyrightable subject-matter and design patentable subject-matter.

Another problematic issue leading to overlap is the unclear term "special appearance." The Thai Patent Act sets forth a statutory definition of "design" as referring to "any form or composition of lines or colors which gives a special appearance to a product." However, there is no definition of the special appearance as a patentability requirement and no further explanation in detail about the characteristics of a registrable design under patent law. In the EU, the requirement of "individual character" is elaborated as meaning that the design must produce a different overall impression on an

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801 *Id.* § 4 ("Whether or not any work mentioned in (1) to (7) has artistic value, and it shall include a photograph and a diagram of such work.").

802 Thai Patent Act, §§ 3 & 56.

informed user compared with the overall impression produced by the earlier designs.[803] In Thailand, on the other hand, the legislature erred in elaborating on the term, although a special appearance is an essential element of the provision when, for instance, determining whether any configuration or composition of lines or colors satisfies the meaning of being the design patentable subject-matter. In other words, the term "special appearance" is obscure and creates confusion for the application of the law. There were some cases where the court invoked the novelty requirement but analyzed the issue by interpreting the term "special appearance" as non-functionality. Using the term "special appearance" to destroy the novelty of a design is not principally correct and can be misleading as an additional patentability requirement to the novelty and industrial application requirements. The term "special" merely describes the required characteristic of eligible designs at the outset in a general provision describing the terms that appear in the Thai Patent Act. If the legislature intended to stipulate "special appearance" as a requirement for patentability, it would have appeared in a sub-category of design patent protection with the other two requirements, similar to the "individual character" requirement prescribed in the Design Directive and Design Regulation.

4.2.1.2 Requirements for protection

In addition to the broad range of protectable subject-matter, the protection requirements of design patent and copyright protection are supportive of overlapping protection between both regimes. In Thailand, the novelty of a design is a prerequisite to design patent registration, and originality is required for copyright protection. The statutory provision regarding the design patentability requirements has some flaws for the protection of industrial designs, thereby contributing to overlaps between design patent protection and copyright protection.

[803] *See* Design Directive, *supra* note 39, art.5 and Design Regulation, *supra* note 40, art.6.

(i) The novelty requirement

The Thai Patent Act affords protection to "a new design for industry or handicrafts"[804] and describes cases where the design is not regarded as new.[805] However, those situations prescribed in the Act are not necessarily clear and require judicial interpretation leading to legal uncertainty.

In determining the validity of a design patent, the court essentially examines the following two steps. First, it must be determined whether an article meets the legal definition of "design" under § 3 of the Thai Patent Act, which states that "'design' means any form or composition of lines or colors which gives a special appearance to a product and can serve as a pattern for a product of industry or handicraft." Second, it must be analyzed whether a design meets the patentability requirements of being a new design for industry or handicrafts, as set forth in § 56 of the Thai Patent Act.

To assess the novelty of the design, the Thai Supreme Court ruled in *Thai Bowl*[806] that a comparison between the prior art and the design at issue, had to take into consideration differences in the overall dominance and unique characteristics of each design. The court held that special characteristics, creativity, and components enabling functionality must be clearly distinguished. The ordinary users have to be able to see the differences and the novelty of the design. If the design differs only in size or functionality, the design is not new. Both articles, the prior art and the design at issue, in *Thai Bowl* had the same shape of the cylinder, but there were differences in the sizes, patterns, and names called. The court found that such differences were not substantial and indicated that the article was a modified design of prior art. The modifications were also not substantial enough to convey any special design appearances. The court concluded that the overall dominance did not differ substantially from the registered design patent. Therefore, the patented design lacked novelty and was ineligible for design patent protection. Moreover, in *Magic Cycle*,[807] the plaintiff's spoiler part of a bicycle has a similar shape and characteristics to the design publicly available in a document. The court held that the plaintiff's design dominantly reflected its functionality rather than the aesthetic choice as claimed.

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[804] Thai Patent Act, § 56.
[805] *Id.* § 57, *supra* note 718.
[806] Thai Supreme Court Decision No. 16702/2555 [hereinafter "*Thai Bowl*"].
[807] Thai Supreme Court Decision No. 11133/2553 [hereinafter "*Magic Cycle*"].

This is a case where there was a difference in functionality, but the court denied design patent protection because of the lack of novelty.

The aforementioned cases demonstrate a problematic situation where the court erred in analyzing the novelty of a design by taking into consideration the functionality aspects. Such an analysis seems peculiar because one can say that a good design must incorporate functionality, and as discussed in chapter 2, an industrial design has a combination of both functional and artistic aspects. Thus, the functional aspects of industrial designs do not always destroy the novelty of the industrial design, as reasoned by the Thai court.

(ii) The functionality exclusion

There is no statutory provision excluding industrial designs dictated by functionality from the protection under the Thai patent law.[808] As discussed in chapter 3, designs dictated solely by technical functions are unprotectable by the EU Community design right and the UK registered design right.[809] Both jurisdictions do not exclude the protection due to the mere existence of functionality; however, the Thai Supreme Court's decisions demonstrate that functional designs could be excluded from protection regardless of the extent to which functionality dictated industrial designs.

In the absence of the functionality exclusion provision, other provisions became a legal basis for denying design patent protection for industrial designs having functionality. For example, the definition of design as prescribed in § 3 in respect of the term "special appearance" was the court's reasoning to exclude designs having functionality. In some cases, the novelty requirement was applied to interpret functionality as a novelty-destroying factor. In *Top Union*,[810] for example, the CIPIT held that a boot having a hole for shoestrings was considered to be a design having functionality and therefore was not an eligible design as defined in § 3 of the Thai Patent Act and could not obtain a design patent registration. The decision indicated that the court interpreted the term "special

[808] *See* Thai Patent Act, § 58, *supra* note 709 (providing details about the provision).
[809] Design Regulation, *supra* note 40, art. 8(1); CDPA 1988, § 1C(1).
[810] Thai Supreme Court Decision No. 2537/2550 [hereinafter "*Top Union*"].

appearance" as meaning a protectable design must not have functionality. The Thai Supreme Court did not apply § 3 as the CIPIT did but instead applied § 56 and denied design patent protection because the functionality existing in the design destroyed the novelty. The rationale of the case was arguable because a design can have both functionality and a special appearance, and that the functionality is irrelevant in determining whether a design is new. The functionality in a design should be a relevant issue only in determining the protectable aspects since a design patent exclusively protects the ornamental elements.

In addition to the reasons mentioned above, there is a case where the Thai Supreme Court ruled on the issue of functionality and denied design patent protection by noting that an invention patent was the more appropriate mechanism for protecting the functional design. In the *Water-Drop* case,[811] the plaintiff applied for a design patent for water-drop. The Thai Supreme Court stated that the claimed design covered the whole shape of the water-drop, not only the marked pattern on it. The shape was identical to the one prevalently used in Thailand, and the marked pattern was not distinctive enough to eradicate the similarity. The court also held that the marked pattern was functional because it aimed to improve the functionality of the article. It is worth noting that the court's analysis resulted from the DIP's testimony, not from the designer creating the design. The court then concluded that the claimed design was, in fact, an invention and not subject-matter eligible for design patent protection.

Another reason given by the court was the legislative intent. In the *DCON* case,[812] the Thai Supreme Court denied design patent protection for the design of a prestressed concrete plank owned by the DCON company and noted that it was the legislative intent of the design patent law not to protect a design having a functionality; the design in question should obtain an invention patent, not a design patent. The court reasoned that the design was new but lacked a special appearance and that granting such a design would encourage a monopoly in trading this kind of product.

Turning to an analysis, the Thai Supreme Court's reasoning for denying design patent protection appeared discursive. The criteria in determining whether a particular design is functional

[811] Thai Supreme Court Decision No. 81/2549 [hereinafter the "*Water-Drop*" case].
[812] Thai Supreme Court Decision No. 9733/2552 [hereinafter the "*DCON*" case].

need to be more precise and more refined. The court should not neglect the designer's intention but should investigate further on the designer's side before reaching a conclusion about the issue of functionality. In the *Water-Drop* case, it is doubtful whether the marked pattern is solely for functional purposes. Suppose that there is an exclusion on functionality in law similar to that of the EU Community design legislation; the design would not have been excluded from protection because the functionality did not solely dictate it.

Notably, a critical factor contributing to a confusing application of the court in determining the novelty or the special appearance of a design is the lack of an explicit provision about the functionality exclusion. As discussed above, a significant consequence of having no statutory bar prescribing on functionality concerns the validity of a design patent. The rationale behind the absence of the explicit functionality exclusion results from the TRIPS Agreement, which does not rigorously compel member states to establish an exclusion on the functionality of designs. Specifically, the third sentence of Article 25 of the TRIPS Agreement states:

> Members may provide that such protection shall not extend to designs dictated essentially by technical or functional considerations.

While there is an explicit provision barring the protection of functional designs in many countries, Thailand does not provide a functionality exclusion under the Thai Patent Act. Although design patents protect only ornamental elements, the absence of an explicit provision on functionality can cause problems related to industrial design protection in Thailand. Without the functionality exclusion, there may be cases where industrial designs solely dictated by technical or functional considerations are protectable under patent law. Consequently, other industrial design proprietors are at a disadvantage because their industrial designs having the same functionality as the patented ones may not be eligible for design patents. Such a case can also diminish the ability of designers to create industrial designs having similar functionality due to more restricted designing choices. It will also discourage designers in a way that decreases or even eliminates the possibility of creating a particular design. As a result, unlike in the US, a design patent cannot be strong evidence that the patented design

is not functional. More importantly, the absence of a statutory exclusion on the functionality causes the undesirable interface between design patents and copyright, as discussed above.

4.2.2 Analyzing Practical Situations related to Industrial Design Protection

4.2.2.1 The effects of industrial design protection

As previously discussed in 2.3.1, there is the economic justification for industrial design protection. As part of the creative industries, industrial designs contribute substantially to the global economy. Evidence shows that the creative industries' contribution to world trade is significant: for example, the world trade in creative goods "doubled from $208 billion in 2002 to $509 billion in 2015."[813]According to UNCTAD, design is one of the highest performing sectors with industrial designs such as fashion, jewelry, and interior design. Hamilton, Director of Division of International Trade and Commodities UNCTAD, described:

> Within the creative economy, the creative industries generate income through trade and intellectual property rights, and create new opportunities, particularly for small and medium-sized enterprises. [814]

The great value of industrial design industries is conspicuous in many developed countries such as the EU and UK. In the EU, design-intensive industries have been playing a vital role in fostering the economy of the EU and EU Member States, reflecting positively in the employment and GDP data.[815] The UK design industry is also highly regarded for its great contribution to economic prosperity. The Chief Design Officer of the Design Council[816] noted:

> In a knowledge economy ideas are money – the UK design industry is worth over £15bn a year to the economy, so it's important for the UK as well as for individual

[813] Paul Kuku et al., *Creative Economy Outlook: Trends in International Trade in Creative Industries 2000 - 2015* (United Nations Conference on Trade and Development (UNCTAD) 2018), at 9.
[814] *Id*. at 3.
[815] EUROPE ECONOMICS CHANCERY HOUSE, THE ECONOMIC REVIEW OF INDUSTRIAL DESIGN, *supra* note 103 at 27-28.
[816] The Design Council was founded by Winston Churchill's government in 1944. Its missions include enhancing British product designs to foster the economy of UK.

> designers that the ability to protect those ideas is as accessible, applicable and implementable as it can be.[817]

As for developing countries, industrial designs acquire significance in a way that developing countries should pay heed to protection. For one reason, they do not involve state-of-the-art technology as rigorously as in the field of invention patents; it is plausible for developing countries to flourish in the field of industrial designs for economic development. The key tenet underlining Thailand's economic growth since 1959 has been foreign trade and investments. Since 2020, Thailand has encountered economic disruption caused by the Covid-19 pandemic affecting many industries, particularly Micro, Small, and Medium-Sized Enterprises (MSMEs).[818] The MSMEs contributed up to 99.70 percent of the total number of enterprises in Thailand.[819] Further, the freer flow of Chinese products in Thailand, for instance, magnifies the risk of slavish imitations and the free-rider problems detrimental to industrial design protection in the country. There exists discontent from those affected by inadequate protection under the current design protection regimes. Consequently, there is a need for more effective protection, particularly for industrial designs having a short life span and the creative industries, which play a vital role in Thailand's economic growth. However, they are still undervalued and have to encounter obstacles to intellectual property protection for their valuable creations.

In Thailand, there is an absence of unregistered design protection that accommodates short-lived products and is cost- and time-saving for MSMEs. In addition to registered design protection under design patent law, copyright and unregistered trademark protection are available alternatives for unregistered protection. Nevertheless, industrial design proprietors have to experience difficulty in obtaining protection under trademark and copyright laws.[820]

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817 CARTER-SILK & LEWISTON, *supra* note 3, at 13.

818 MSMEs in the context of the manufacturing industry are defined as follows: 1) Micro Enterprises means enterprises with no more than 5 employees or annual revenue up to 1.8 million baht; 2) Small Enterprise means enterprises with 6-50 employees or annual revenue of more than 1.8 million baht and up to 50 million baht, and 3) Medium Enterprise means enterprises with 51-200 employees or annual revenue of more than 100 million baht and up to 200 million baht. *See Definition of MSMEs*, OSMEP, https://www.sme.go.th/en/page.php?modulekey=363 (last visited May 1, 2021).

819 *Preparing MSME 4.0 for Thailand's 4.0 Economy*, ASEAN, https://asean.org/preparing-msme-4-0-thailands-4-0-economy/ (last visited May 1, 2021).

820 *See supra* 4.1.3 & 4.1.5 (describing trademark and copyright protection in Thailand).

Having adequate legal protection will facilitate growth and increase the strength of the short-lived product industries and MSMEs, leading to economic development in Thailand. Strengthening industrial design protection regimes will also help deal with counterfeiting problems causing detrimental effects to the interests of foreign and local industrial design proprietors. Without an improved industrial design protection regime, there will be an imbalance of interests caused by inadequate protection of their intellectual works. By contrast, an enhanced industrial design protection regime will benefit many stakeholders, namely designers, MSMEs, and creative industries, which generate income from industrial designs. The enhancement of industrial design protection will particularly be in the creative industries' interests to which industrial designs are of great value.

4.2.2.2 The statistical analysis on design patent protection in Thailand

The following part demonstrates some annual statistics of design patents in Thailand. The official patent data from the DIP are visualized in Figure 4.1 and Figure 4.2, focusing on the number of design patent applications and the number of granted design patents, respectively. These figures can convey messages about practical situations concerning how the design patent regime had been functioning in protecting industrial designs in Thailand. As illustrated in Figure 4.1(a), since the enactment of the Patent Act 1979, the annual numbers of patent applications, both design patents and invention patents, had been on the rise until 2008. However, the trend plummeted in 2010 during the US subprime mortgage crisis. It had been on the upward trend again from 2010 to 2019, reaching 13,465 applications in 2019.[821]

For forty-one years, from 1979 to 2019, the proportion of design patent applications was approximately 35.5 percent of all patent applications (92,058 of 259,507).[822] Annually, the number of design patent applications never surpassed the number of invention patent applications, except for the years 1979 and 2010. It is also worth noting that the subprime crisis in 2010 did not significantly lower the number of design patent applications compared to the number of invention patent applications.

[821] *See* Appendix A Table A.1 (referring to the number of applications).
[822] *Id*.

After the year 2000, most applicants who filed design patent applications were Thai applicants, with the figure at least twice above foreign applicants, as shown in Figure 4.1(b). In 2009, the number of Thai applicants reached even more than four times higher than that of foreign applicants: the sharp decrease in the number of foreign applicants might have been caused by the subprime crisis. Furthermore, according to Figure 4.1(c), since 2001, Japanese applicants have been in the first rank, among foreign applicants, for filing design patent applications in Thailand.[823]

The annual number of granted patents in Figure 4.2(a), which includes both design patents and invention patents, had a slightly fluctuated but upward trend since the enactment of the Thai Patent Act in 1979. The sudden increase in the number of granted patents in 1999 resulted from the amendment to the Thai Patent Act.[824] During the subprime crisis, there was no apparent drop in the figure compared to the annual number of all patent applications. It can be observed that, from 2011 upward, the figure sharply increased due to the increase in the number of granted design patents between 2011 and 2015. However, the trend of granted design patents was saturated after 2015, while the number of granted invention patents was on the rise. From Figure 4.2(a), the number of granted design patents and the number of granted invention patents are nearly equal in 2019 (3,130 granted design patents vs. 3,121 granted invention patents), even though the numbers of applications for both patent types are distinctively different (5,293 vs. 8,172 applications in 2019).

Historically, from 1979 to 2019, the DIP granted 42,070 design patents and 31,657 invention patents in total. There are 26 years among 41 years where the numbers of granted design patents are annually higher than the numbers of granted invention patents, as shown in Figure 4.3.[825] This contrasts with the fact that there are merely two years, 1979 and 2010, among 39 years where the numbers of design patent applications were annually higher than the numbers of invention patent applications.[826] Therefore, it indicates that the overall allowance rate of the design patents is much

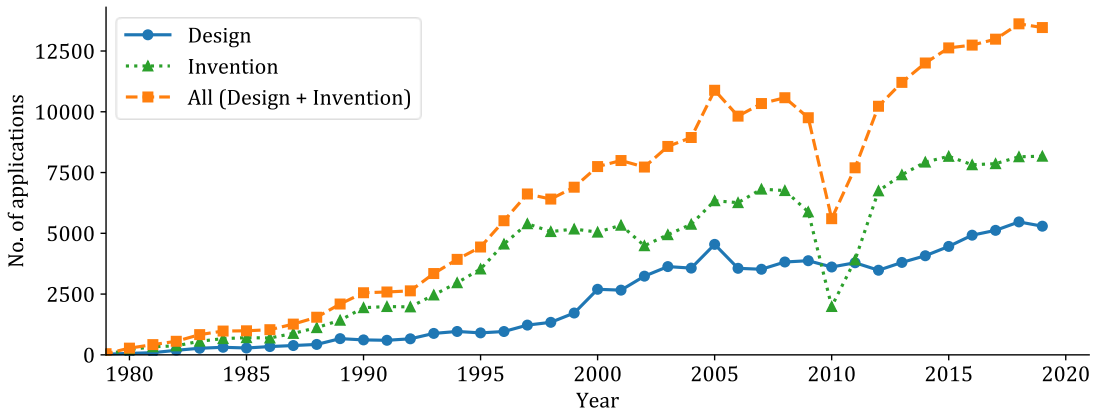
[823] *See* Appendix A Table A.3 (showing the numbers of applications split by country of applicants).
[824] *See supra* note 677.
[825] There was no granted patent in 1979 and 1980; *see* Appendix A Table A.2 (showing the detailed statistics on grants).
[826] *See* Appendix A Table A.1 (showing detailed statistics on applications).

higher than that of the invention patents, as confirmed by Figure 4.4.[827] The figure also demonstrates the fluctuating trends of the annual allowance rate of design patents compared to that of invention patents. Moreover, in terms of country of applicants,[828] the annual number of design patents granted to Thai applicants had been slightly higher than that of design patents granted to foreign applicants since 2003, as shown in Figure 4.2(b), and among foreign applicants, Japanese applicants had predominantly been in the first rank for obtaining design patents since 2001 (except for 2001 - 2004 and 2011), as shown in Figure 4.2(c).[829]

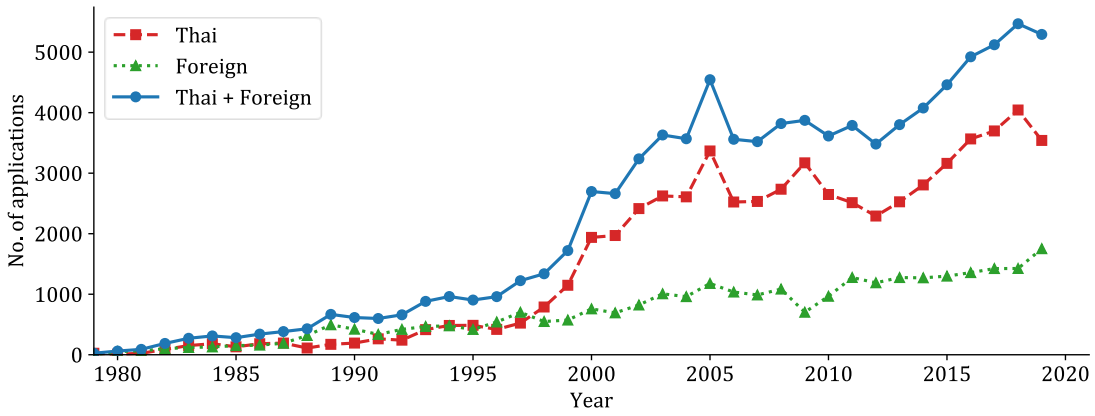
[827] The annual allowance rate for design patents was calculated from the number of granted design patents divided by that of design patent applications. The same calculation also applied in the case of invention patents. For example, in 2015, the number of design patent applications is 4,461 and the number of granted design patents in that year was 3,711, resulting in 83.2 percent allowance rate.

[828] *See* Appendix A Table A.4 (showing the numbers of granted patents split by country of applicants).

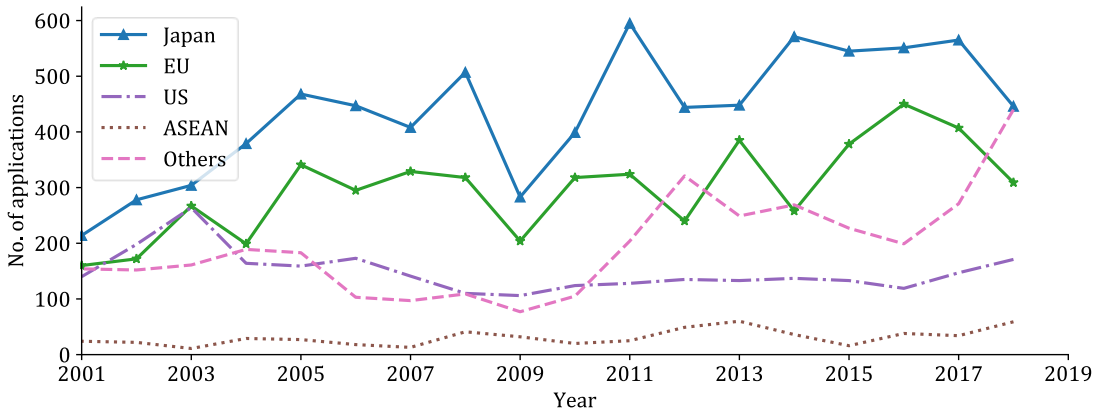
[829] *See id.*



(a) Number of applications: Design patent vs. Invention patent applications (1979 – 2019)

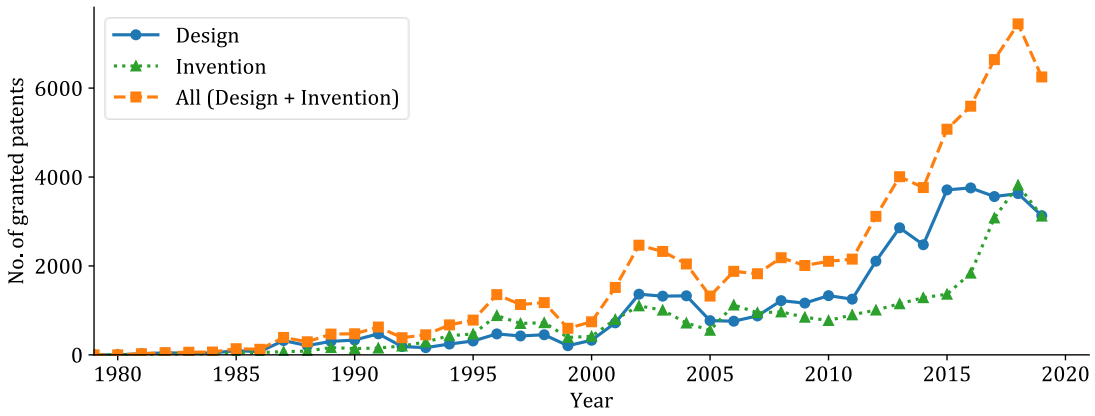


(b) Number of design patent applications: Thai vs. Foreign applicants (1979 – 2019)

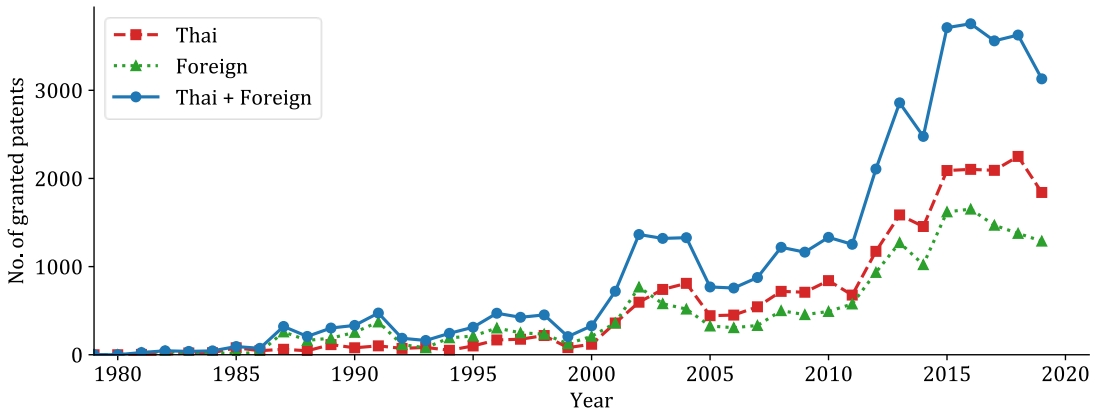


(c) Number of design patent applications split by foreign applicants (2001 – 2018)

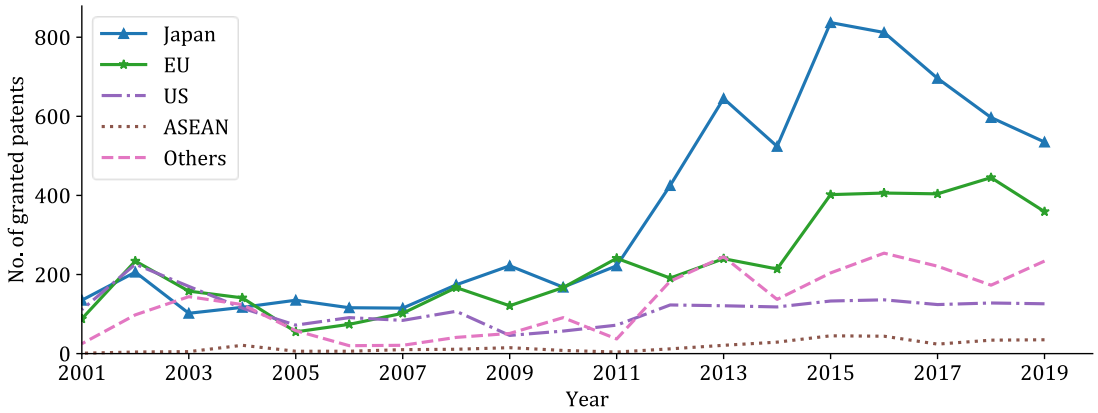
Figure 4.1 Annual trends of design patent applications



(a) Number of granted patents: Design vs. Invention patents (1979 – 2019)



(b) Number of granted design patents: Thai vs. Foreign applicants (1979 – 2019)



(c) Number of granted design patents split by foreign applicants (2001 – 2019)

Figure 4.2 Annual trends of granted design patents

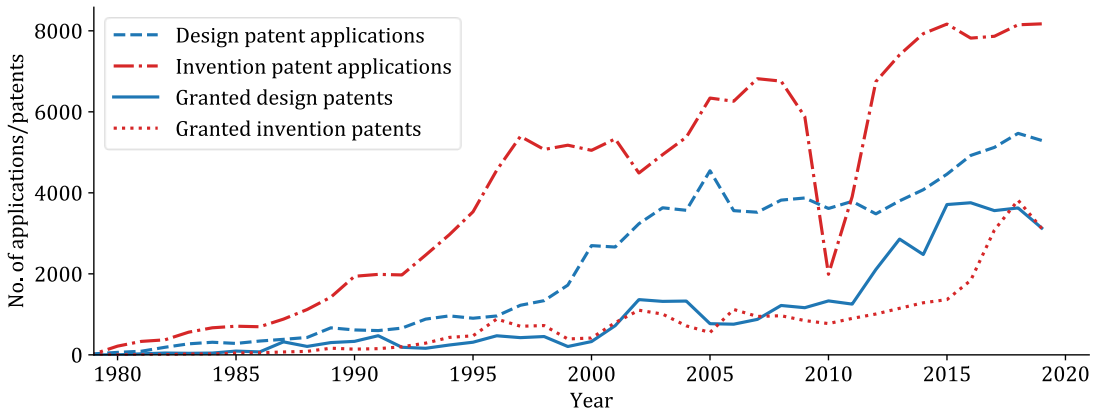


Figure 4.3 Number of applications and granted patents split by type of patents (1979 – 2019)

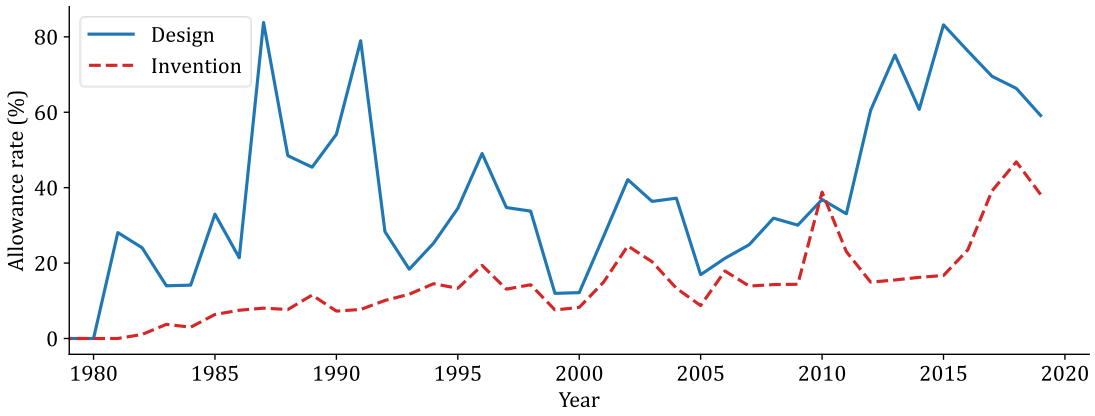


Figure 4.4 Overall patent allowance rate (1979 – 2019)

The statistics discussed so far were officially released by the DIP in a spreadsheet format provided in Appendix A as a reference. However, in order to investigate more rigorous insights into the situation of the design patent regime in Thailand, the author queried design patent data from the public DIP database,[830] which hosts individual patent data such as the application date, the application number, the patent number, the grant date, the patent claims, the patent's status, and so on. The search queries and compilations[831] were conducted on June 13, 2021, specifying the application date between 2000 and 2019 as the search criteria, resulting in 78,595 design patent applications, 39,204 of which failed to receive a patent number. It is important to note that the annual numbers of applications

[830] *See Search Patent System*, DIP, https://patentsearch.ipthailand.go.th (last visited June 13, 2021).
[831] The process was programmatically performed with the help of Kasemsit Teeyapan, Ph.D., Department of Computer Engineering, Faculty of Engineering, Chiang Mai University, Thailand.

returned from the search queries are slightly lower than the official numbers reported in Appendix A. The author suspected that some early abandoned applications might not be included in the database or might not be publicly available. It is also worth noting that the search results of individual patent applications were sometimes incomplete, missing some information, or corrupted with typos. However, it is still possible to draw some insights from the data.

According to the queried data, the design patent application pendency could be calculated to show the wait time between the date of filing and the grant date. From 2001 to 2019, the average design patent application pendency and its standard deviation can be illustrated in Figure 4.5, whose horizontal axis represents the year of filing. It can be observed that, from 2000, the average wait time kept climbing until 2007 and then steadily decreased until 2019. By contrast, the standard deviation of the wait time had constantly decreased since 2001. More specifically, the average pendency was improved from 1379 days (SD=639 days) in 2001 to 597 days (SD=112 days). These numbers indicates that the design patent registration process had been accelerated and enhanced over the years.

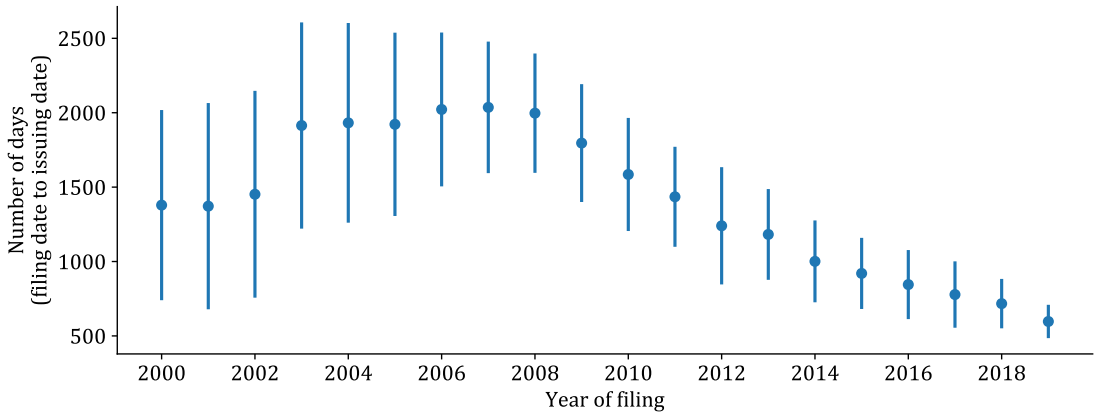


Figure 4.5 Average number of days between the date of filing a design patent application and the date of granting a patent (2000 – 2019)

To further investigate design patent applications, the author tried to classify design patent applications into three main categories: two-dimensional designs (2D), three-dimensional designs (3D), and both two- and three-dimensional designs (2D & 3D). The patent claims of all 78,595 design patent applications from 2000 to 2019 were searched to evaluate the type of designs for a specific keyword. A claim containing the keyword "*ลวดลาย*" (lines, colors, or both) was categorized as "2D designs," while a claim containing the keyword "*รูปร่าง*" (shape or configuration) was categorized as "3D designs." A claim was labeled as "2D & 3D designs" when both keywords were found. If both keywords were not detected, the applications would be classified as "Undetermined designs." The results are shown in Figure 4.6(a). It should be noted that there were some restrictions due to unavailable information. Unpublished patent applications that appeared in the database did not provide information about the patent claims. Furthermore, the patent claims were also absent in some published applications. Consequently, these applications were grouped into the category called "Unavailable information."

According to Figure 4.6(a), 3D designs (56.7%) is the most popular type of applications, followed by 2D & 3D designs (5.9%) and 2D designs (3.5%), respectively. It is obvious that 3D designs outnumbered other categories, indicating that design patent protection appeared more attractive to 3D designs than 2D designs. On the other hand, it could mean that copyright protection was the chosen option for safeguarding 2D designs in many cases. In Thailand, both 2D designs and 3D designs are protectable subject-matter under copyright and design laws, provided the requirements for protection are satisfied. Many 3D design proprietors obtained design patent protection, although their designs might also be protected by copyright as works of applied art. By contrast, design patent protection was not much sought after for 2D designs.

The 78,595 design patent applications from Figure 4.6(a) were filtered for patent numbers, resulting in 39,204 granted design patents. These patents were then categorized into five categories, as shown in Figure 4.6(b). The figure demonstrates that the number of design patents with 3D designs had substantially dominated the number of design patents granted for the past twenty years. Specifically, the proportions of design patents with 3D designs, 2D designs, and 2D & 3D designs

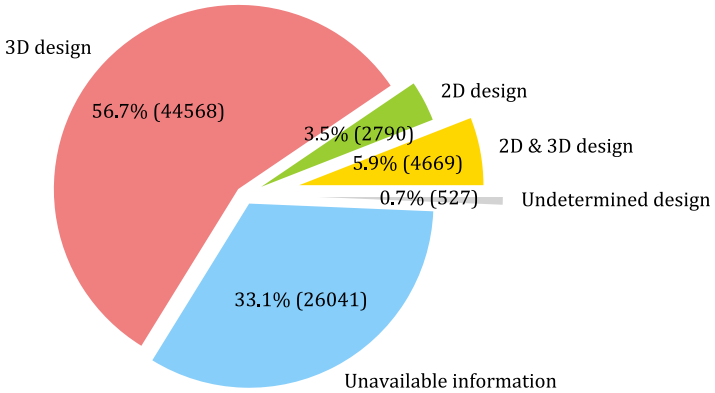
were 82.1%, 4.5%, and 8.2%, respectively. According to the statistics, design patents played a more critical role in protecting 3D designs than 2D designs. The large percentage of granted design patents for 3D designs substantiates the claim.

Figure 4.6(c) shows the overall grant results (granted vs. not granted) of design patent applications in each category. From the figure, the 20-year average allowance rate can be calculated: 72.2%, 63.3%, and 68.6%, for 3D, 2D, and 2D & 3D designs, respectively.[832] Design patentable subject-matter as 3D designs had the highest chance of being granted design patents for the past twenty years. One reason is that there is a higher degree of freedom in design compositions for 3D designs. Another reason is due to the absence of an explicit functionality exclusion restricting the protection of 3D designs under patent law.[833] In the case of 2D designs, the allowance rate shows that they had slightly above 60% chance of being granted design patents. The allowance rate for 2D designs was about 10% lower than that for 3D designs, reflecting the difficulty of obtaining design patents for 2D designs. Nevertheless, the average allowance rate for both 3D and 2D designs is relatively low when compared to, for instance, the US allowance rate for design patent applications,[834] indicating the need for more adequate protection of industrial designs in Thailand.

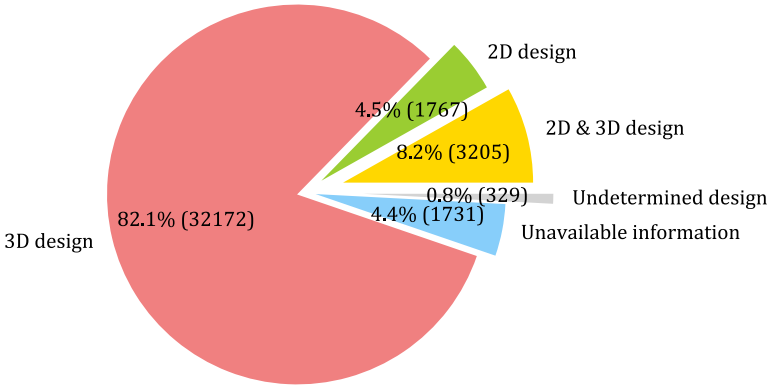
[832] According to Figure 4.6, the calculations were as follows: 32,172 /44,568 = 72.2% (3D); 1,761/2,790 = 63.3% (2D); and 3,205/4,669 = 68.6% (2D & 3D).

[833] *See supra* 4.2.1.2(ii) (discussing the functionality exclusion).

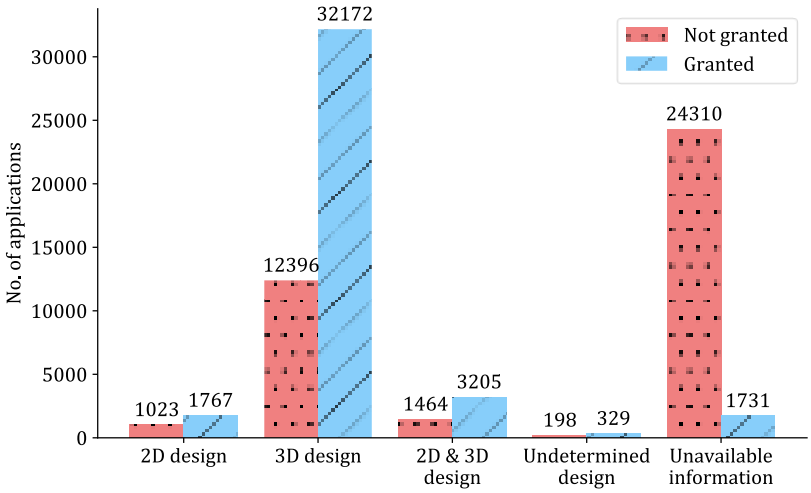
[834] *See* Sarah Burstein, *Is Design Patent Examination Too Lax*, 33 BERKELEY TECH. L.J. 607, 610 (2018) (noting that "[f]or the past decade, the allowance rate for design patent applications has remained over 90%.").



(a) 78,595 design patent applications



(b) 39,204 granted design patents[835]



(c) Overall results of (not granted vs. granted) design patent applications in each category

Figure 4.6 Overall numbers of design patent applications and granted design patents from 2000 to 2019, classified into five categories: 2D, 3D, 2D & 3D designs, undetermined designs, and unavailable information

4.2.3 The Adequacy of the Thai Patent Regime for Industrial Design Protection

The legal and practical situations related to industrial design protection in Thailand, as previously discussed in 4.2.1 and 4.2.2, give rise to a question about the adequacy of the Thai patent regime for industrial design protection. As discussed in 4.1.4, a patent regime is the primary means for industrial design protection in Thailand. Whether the patent regime is appropriate for industrial design protection is a subject of scholarly debate, particularly in the US. Several pieces of literature oppose the patent regime. For example, Brean proposed that "the design patent system should either be abolished or should be phased out and replaced with a system more akin to community design protection."[836] Jackson argued, "design patent protection should be converted to a system of 'engineering copyright' or 'copyright-design.'"[837] Williams noted that "the design patent laws are a 'misfit' and have been 'altogether insufficient.'"[838] Literature also suggested that the protection of industrial designs should be based on a copyright approach, but the historical development exhibited abortive attempts.[839]

Thailand's historical development of design patent protection indicates that the rationale behind adopting a patent regime for industrial design protection was not predominantly grounded in theoretical justifications: the principal justifications appear to be influenced by political and economic reasons.[840] There appeared no intensely justifiable relation existed between patent law and industrial designs other than the political and administrative reasons to regulate them in the patent regime, emphasizing, for instance, the role of the patent office and the necessity of a registration system

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836 Daniel H. Brean, *Enough Is Enough: Time to Eliminate Design Patents and Rely on More Appropriate Copyright and Trademark Protection for Product Designs*, 16 TEX. INTELL. PROP. L.J. 325 (2008).

837 Jason J. Du Mont & Mark D. Janis, *The Origins of American Design Patent Protection*, 88 IND. L.J. 837, 844 (2013) (citing Roy V. Jackson, *A New Approach to Protection for the Designs of New Products*, 38 J. PAT. OFF. SOC'Y 448, 449 (1956)).

838 Henry D. Williams, *Copyright Registration of Industrial Designs*, 7 J. PAT. OFF. SOC'Y 540, 540 (1924) (cited in *id*. at 884 n.35).

839 *See, e.g*., Reichman, *Design Protection after the Copyright Act of 1976*, *supra* note 600; Jerome H. Reichman, *Legal Hybrids between the Patent and Copyright Paradigms*, 94 COLUM. L. REV. 2432 (1994) [hereinafter "Reichman, *Legal Hybrids between the Patent and Copyright Paradigms*"].

840 This is also the case for the US: *see supra* 3.3.1 (exploring the US legislative history on design patent protection).

required under patent law.[841] The issue of whether industrial designs should be subject to a patent regime is not much debated in Thailand, but it warrants academic attention since both the US and Thailand principally protect industrial designs under patent law and endure problems caused by the legal framework. To ascertain whether the Thai patent regime is adequate to protect industrial designs effectively, this section investigates issues related to the intrinsic patent regime and policy choices for industrial design protection in Thailand.

4.2.3.1 Intrinsic problems of the Thai design patent regime

As discussed in previous chapters, a design patent regime is the primary means for industrial design protection in the US and Thailand. The characteristics of a design patent regime concern rigorous conditions for protection, such as the novelty requirement, the substantive examination, and the registration process before a design patent is granted. This section first addresses the problems or disadvantages of adopting a design patent regime to protect industrial designs in Thailand.

(i) The start of protection

The first problem of adopting a design patent regime for protecting industrial designs is that the temporarily governmental grant affords protection upon registration: design patent protection begins at a later point in time after the creation of the industrial design. Compared to copyright, there is a delay in protection because design patent protection does not start from the date of creating an industrial design but from the effective filing date of a design patent application.[842] Industrial design proprietors are thus at risk of failing to protect their industrial designs in a timely fashion, particularly when they need to protect their works as early as possible. The period of design patent protection only begins from the filing date at the earliest. Although it is possible to claim the first foreign filing date

[841] *See id.*; *see also* 4.1.2 (exploring the origin of implementing the patent regime for industrial design protection in Thailand).

[842] *See* Thai Patent Act, § 35 ("An invention patent shall have a term of twenty years from the date of filing of the application in the country.").

as the filing date in Thailand,[843] the protection still starts later than the date of creation. Hence, the start of design patent protection is less desirable for industrial design proprietors who desire to have their works protected at the earliest possible time, starting from the date of creation.

(ii) The patent disclosure

Another problem concerns disclosures of the created works. An objective of a patent regime is to provide incentives to create by rewarding monopoly rights on the condition that the creation is officially recorded with the state. Under the design patent regime, industrial designs must be disclosed to the public in exchange for governmentally granted design patents. Although disclosures benefit the public by notifying what is protected by exclusionary rights and what is left in the public domain, disclosures may diminish the benefits of industrial design proprietors in cases where the nature and value of industrial designs primarily rely on a surprising factor offered by the novelty to the public's eyes.

Moreover, disclosures of industrial designs may not provide considerable benefits as compared to disclosures of inventions, which can inspire other inventions based on the knowledge exposed. Any disclosure of industrial designs are prone to provide exactly the opposite consequences when compared to disclosures of inventions due to two main reasons: 1) industrial designs are not necessarily derived from previous industrial designs, but they are generally derived from the creators' own inspirations or instructions related to the works, and 2) disclosures are more detrimental to industrial designs for which secrecy is preferred. The disclosures of industrial designs may provide adverse effects to industrial design proprietors because they present the risk of free-riding problems in the form of design piracy, leading to cases where the industrial design proprietors cannot fully reap benefits from the creation.

[843] *See id.* § 60*bis*, *supra* note 717 (providing details about the right of priority).

(iii) The patentable subject-matter

Protecting industrial designs under the patent regime also means that industrial designs are patentable subject-matter; however, there is an argument questioning the status of industrial designs as patentable subject-matter. Under the Thai design patent regime, the subject-matter of design patent protection includes any composition of lines or colors that gives a special appearance to a product of industry.[844] Lines and colors are two of the seven basic elements of art alongside shape, form, space, texture, and value. Industrial designs can be analogous to industrial art; therefore, a patent regime aimed to protect inventions is not inherently appropriate for protecting industrial designs. Patent law is suitable for protecting inventions, not industrial art. The characteristics of industrial designs are predominantly closer to artistic works than scientific inventions. Despite technical aspects incorporated in industrial designs, designing relates to the process of problem-solving aimed predominantly for aesthetic aspects and does not generally lead to groundbreaking innovations. Fashion designs, for instance, are mostly derived from drawings which are also artistic works. The design of *Haute Couture* closely resembles artworks due to its striking artistic characteristics.[845] By contrast, a patent regime relates more with inventions rather than artworks; hence, protecting artistic works, albeit not fine art, appears odd under patent law whose main objective centers on functions of works.

(iv) The patent requirements

A patent regime generally requires novelty as a threshold condition to the grant of a patent, which can be problematic for industrial design protection. The Thai patent regime requires novelty as a requirement for both invention patent and design patent protection even though both regimes protect different subject-matter. A patent requirement of novelty for industrial design protection can be

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844 *Id.* § 3, *supra* note 708.

845 French legislation protects the term "haute couture" and even stipulates criteria for using the term. For example, the work must be custom-fitted and made by hand. Such criterion supports the similar characteristics of industrial designs as works of artistic craftsmanship protectable under copyright law.

irrelevant to the assessment of artistic features, albeit applied industrially. Opponents of a patent regime often lean toward the originality requirement as they relate designs with artistic creations rather than inventions. The international legal framework related to industrial design protection does not compel Member countries to enforce the novelty requirement and even presents an alternative of the originality requirement as a condition for protecting industrial designs.[846] The undesirability of the novelty requirement is also reflected in the Max Planck Proposal, which intentionally evaded the influence of a patent approach by omitting a separate test of the novelty requirement but applied a two-pronged test of the proposed distinctive character requirement.[847]

In the US, the requirements of novelty and non-obviousness resulted in fewer industrial designs satisfying the patent standards, as required under the US patent law.[848] The stringent prerequisite of non-obviousness particularly impedes the accessibility of protecting industrial designs under patent law.[849] In Thailand, the Thai Patent Act does not require non-obviousness for design patent protection, but the Thai Supreme Court provided reasonings similar to the non-obviousness requirement.[850] Although the statutory requirements for design patent protection are novelty and industrial application, a statutory provision describing that new design must not nearly resemble other designs can be analogous to the non-obviousness requirement for industrial design protection under the Thai patent law.[851] As a result, it can be more difficult to satisfy the requirements for design patent protection in Thailand. As analyzed in 4.2.1.2, the novelty requirement is a criterion of patentability that can be an obstacle to industrial design protection. As analyzed in 4.2.2, the statistical analysis indicates the difficulty of obtaining design patents for the past twenty years: the 20-year average allowance rate was slightly above 70% for three-dimensional designs and 60% for two-dimensional

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846 *See* TRIPS Agreement, art. 25.1, *supra* 2.2.3 (providing details about the TRIPS Agreement).
847 *See* Horton, *Industrial Design Law*, *supra* note 165, at 442 ("The Commission feared that a requirement that the design be the result of a designer's effort might introduce a condition of subjective novelty rather than the intended objective test of distinctive character.").
848 *See supra* 3.3.2 (discussing the US requirements for design patent protection).
849 Reichman, *Design Protection and the New Technologies*, *supra* note 7, at 127.
850 *See supra* note 720 (describing the case).
851 *See* Thai Patent Act, § 57(4); *supra* 4.1.4 (providing details about the Thai design patent protection).

designs.[852] Moreover, the Thai court showed that the novelty requirement is no less subjective than requirements for copyright protection since there can be different interpretations of the statutory provisions relating to the protection requirements.[853]

For some industries, the novelty requirement can obstruct the protection of creatively innovated designs worthy of protection, but they do not necessarily consist of any new and non-obviousness ornamental features. Industrial designs can result from incremental innovations that are valuable and deserving of legal protection. The novelty requirement is also problematic in cases where 1) there is less availability of new artistic features due to intellectual property protection, and 2) the creation of industrial designs is unavoidably influenced by prior ones. Industrial designs in the fashion industry, for instance, are sometimes created based upon existing designs as an inspiration for their creations. The stages of the fashion loop normally occur in the industry, reviving old fashion trends in a new era. A problem may arise as to whether such industrial designs satisfy the novelty requirement since the assessment of novelty may be tainted by the familiarity of designs in the newly created ones. As a consequence, industrial design proprietors encounter difficulties in obtaining design patent protection and may be propelled to rely only on copyright protection, which can be disadvantageous for industrial design proprietors.[854]

(v) The restricted term of protection

Another disadvantage of protecting industrial designs under a patent regime is the restricted term of protection, which can be unsatisfactory to industrial design proprietors. Under a patent regime, the term of protection for a patent is generally twenty years from the filing date; however, the term of protection granted for a design patent is considerably shorter than the prescribed term. In the US, a

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[852] *See* Figure 4.6 (showing the overall numbers of design patent applications and granted design patents from 2000 to 2019).

[853] *See supra* 4.2.1 (discussing legal problems related to requirements for design patent and copyright protection).

[854] *See infra* 4.3.1.2 (analyzing disadvantages of copyright protection for industrial designs in Thailand).

design patent lasts for fifteen years from the date when a design patent is granted,[855] providing a shorter term of protection than the copyright term, which generally lasts for seventy years after the author's death. In Thailand, a design patent lasts for ten years from the filing date,[856] which is shorter than the period provided by the US design patent. There is also a paradoxical situation highlighting the problem of the restricted term when considering that industrial designs may receive copyright protection for longer-term protection without requiring considerable efforts from industrial design proprietors to obtain the protection.[857]

The restricted term of patent protection is based on an attempt to "balance positive incentives for innovation and the social cost of the patent monopoly."[858] When considering the swift development of industrial technologies, a comparatively short-term protection is desirable. On the other hand, many industrial designs can always be relevant across the changing eras and benefit industrial proprietors for a long period since they are generally not dependent on the changing technologies. Examples of such industrial designs are three-dimensional designs of products such as kettles, chairs, or lamps; and two-dimensional designs such as a composition of patterns of lines and colors on bags and shoes. When considering the iconic status of industrial designs, the restricted term of protection afforded under the patent regime may not sufficiently compensate creative endeavors of industrial design proprietors. The restricted term of protection for industrial designs may also accelerate a decrease in value due to the upcoming expiration date, increasing harm to industrial design proprietors from design piracy. In other words, the restricted period of protection causes a problem for effective protection of industrial designs under the Thai design patent regime since it is not favorable to industrial design proprietors who wish or need to recoup their investments for a much longer time than the time restricted by the patent regime.[859]

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855 35 U.S.C. 173 (providing that a design patent has a fifteen year term from the date of grant. Only for design patents filed on or after May 13, 2015); *see supra* note 588.

856 Thai Patent Act, § 62.

857 Thai Copyright Act, §§ 19, 22; *see supra* note 764, 765 (providing details about the copyright terms).

858 Mario Biagioli, *Weighing intellectual property: Can we balance the social costs and benefits of patenting?*, 57 HIST SCI 140, 143 (2019).

859 The 10-year term of design patent protection is unsatisfactory when compared to the 25-year maximum duration of registered design protection provided in the EU, UK, and Japan.

(vi) The costs and efforts

Protecting industrial designs under a patent regime means that there are costs and efforts required for a patent application and registration, as opposed to automatic protection by copyright. At the early stage, industrial design proprietors have to prepare for applications and related documents, involving some complications associated with the design patent applications. An effective application may require implementing good strategies. In Thailand, certain rules are adopted for filing for a design patent. For example, the applicant has to submit several documents, namely the depictions of the industrial design in compulsory angles showing different perspectives. The hand-drawn images must follow academic principles of drawings showing different angles and attributes of the industrial design. There must have only one industrial design in each application;[860] therefore, an applicant who wants to file for design patent protection of more than one industrial design must file multiple design applications. In terms of costs, industrial design proprietors incur the expense of design patent applications and the patent agent's fees for assisting in achieving the process: for example, foreigners are required to appoint a certified patent agent. The fees related to obtaining the Thai design patents include fees for applications, corrections, examinations, publications, and issuances.[861] Once granted, a design patent has annual fees requiring the patentee to pay at the beginning of the fifth year period and then each year until the tenth year, which is the expiry year of the design patent.[862] A failure to pay the annual fee is a ground for revocation of a design patent.[863]

In summary, the whole procedure of obtaining design patent protection can be time-consuming and costly. Compared to copyright protection, such effects are evident because copyright does not generally require costs and efforts for protection. Hence, protecting industrial designs under

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860 Thai Patent Act, § 60 ("An application for a patent shall relate to a design to be used with only one product.").

861 *See Fee-Design patent*, DIP, http://www.ipthailand.go.th/en/design-patent-006.html (last visited Nov. 30, 2021) (providing details about the design patent fees).

862 A one-time payment of all annual fees is also possible; *see* Thai Patent Act, "List of the maximum fees" (providing details about annual fees).

863 Thai Patent Act, §§ 65, 43 ("If the patentee fails to pay the annual fee and the surcharge within the period prescribed in the third paragraph, the Director-General shall prepare a report to the Board for canceling the patent."); *see* Thai Supreme Court No. 2585/2559.

the patent regime places a burden on industrial design proprietors, particularly those who cannot bear the costs and efforts of design patents.

4.2.3.2 Policy choice problems of the Thai design patent regime

In Thailand, the policy choices related to the patent regime for industrial design protection are not well-supportive of adequate and effective protection, as demonstrated in the following problems.

(i) The lack of a grace period

First, the Thai design patent regime does not implement a grace period for filing a design patent application. This is contrary to other jurisdictions allowing the grace period, which refers to the period during which any disclosure made to the public is not considered prior art destroying the novelty of subject-matter.[864] The grace period allows industrial design proprietors to safely file patent applications within the prescribed period after disclosing their works. In the US, a design patent grace period is one year before the effective filing date of an application.[865] By contrast, the grace period is not available under the Thai design patent regime.

Unlike invention patents, there is no statutory provision regarding disclosures of designs that do not regarded as novelty destroying disclosures.[866] A design is not new if it is described or disclosed in any documents including printed publication in Thailand or a foreign country before filing for design patent protection.[867] Notably, there is no mention of a disclosure made by an industrial design proprietor as to whether it is considered to destroy the novelty of the industrial design. The situation differs from invention patents: there is a grace period for filing an invention patent application in cases where a disclosure made by an inventor displaying the invention at an official exhibition or an

[864] *See* Design Regulation, *supra* note 40, art. 7(2) (providing the 12-month grace period preceding the date of filing an application).
[865] 35 U.S.C. § 102(b)(1).
[866] *See* Thai Patent Act, § 6 para. 2, *supra* note 719 (describing the provision).
[867] *Id.* § 57(2), *supra* note 718.

international exhibition within twelve months before filing for patent protection.[868] Without such a statutory provision, industrial design proprietors do not have the twelve-month grace period after disclosing their industrial designs to file design patent applications. Any disclosure including the one made by an industrial design proprietor before filing a design patent application is not exempted from assessing the novelty of an industrial design. Put it simply, the industrial design is not new and therefore fails to satisfy the requirement for design patent protection in Thailand. Such a problem causes a severe disadvantage to industrial design proprietors because there is no time to test the market of industrial designs before incurring costs and making efforts to obtain protection under the Thai design patent regime.

(ii) The unlawful disclosure

Second, the Thai design patent regime does not provide an exception to the novelty destroying factor resulting from unlawful actions as provided in the case of invention patents[869] or a safeguard clause as prescribed in the EU Design Regulation.[870] A design is not new if, before filing for design patent protection, it is disclosed or described in a document or a printed publication in Thailand or in a foreign country even if such a disclosure is a consequence of an unlawful action.[871] In contrast, there is an explicit exception applied to invention patents in cases where "a disclosure which was due to, or made in consequence of, the subject-matter having been obtained unlawfully."[872] Consequently, such a disclosure does not destroy the novelty of the invention disclosed to the public by any means in Thailand or a foreign country, provided it occurs within twelve months before filing a patent

[868] *Id*. § 6 para. 2, *supra* note 719 (describing the provision).
[869] *Id.*
[870] *See* Design Regulation, *supra* note 40, art. 7 (A design is not deemed to have been made available to the public "where these events could not reasonably have become known in the normal course of business to the circles specialised in the sector concerned, operating within the Community. The design shall not, however, be deemed to have been made available to the public for the sole reason that it has been disclosed to a third person under explicit or implicit conditions of confidentiality."). *See also* Design Regulation, *supra* note 40, art. 7(3) (providing that a design is not deemed to have been made available to the public if it was "a consequence of an abuse in relation to the designer or his successor in title.").
[871] Thai Patent Act, § 57(2), *supra* note 718.
[872] *Id*. § 6 para. 2.

application. Unfortunately, the rule does not apply to design patents.[873] The novelty of an industrial design is thus destroyed even if the industrial design is disclosed or described in a document or a printed publication unlawfully.[874]

Compared to invention patents, industrial design proprietors are at a higher risk of failing to obtain design patents since their industrial designs cannot satisfy the novelty requirement. Such a situation is detrimental to certain design industries, particularly in the field of jewelry designs. Faced with the problem of stolen designs, jewelry designers are prone to lose their rights to design patent registration.[875] As a consequence, the current Thai design patent regime provides inadequate protection for industrial design proprietors when unlawful disclosures by design piracy destroy the novelty of industrial designs. The policy choice to protect industrial designs in such a case is absent from the Thai design patent regime, causing problems as previously discussed.

(iii) The substantive examination

A substantive examination is a prerequisite to granting a design patent in Thailand. A registration system requiring a substantive examination may differ in each jurisdiction due to policy choices adopted differently. In the EU, a registration system is not necessarily a problem to the registered Community design protection because the EU adopted a policy not to have an in-depth substantive examination before registration. The EUIPO examines the formalities and only two issues of the substantive aspects of the application: 1) whether an industrial design is the eligible subject-matter and 2) whether there is an element violating public policy and morality.[876] In Thailand, there must be a substantive examination before a design patent is granted. The DIP takes about six to nine months for the preliminary and substantive examinations and an additional three months for an

[873] *See id.* § 65 (stating that provisions in "Chapter II concerning patents for inventions shall apply, mutatis mutandis, to patents for designs.").
[874] *Id.* § 57.
[875] *See* Natayainee Juthong, *Problems of Protection of Jewelry Design: Study of Rights of Designers to File an Application under Thai Law in Case of Stolen Design* (Thammasart 2013).
[876] Registration Process, EUIPO, https://euipo.europa.eu/ohimportal/en/rcd-registration-process (last visited Nov. 10, 2021).

opposition process before granting a design patent.[877] The monopoly rights are then granted to the applicant upon registration after the substantive examination, which can be cumbersome for obtaining design patents.

(iv) The time-consuming procedures

There is a lack of clear policy choices regarding accelerating procedures for obtaining a design patent. The whole design patent registration process takes no less than fourteen months.[878] According to the DIP, it takes approximately one hundred and fifty days for preliminary examination, and then the application is published for opposition within ninety days before the substantive examination, which takes about one hundred and eighty days. The grant fees must be paid within sixty days of the granting decision. A design patent will then be issued within thirty days after the payment.[879] As analyzed in 4.2.2, Thailand struggled with the amount of time required before the grant of a design patent, although the statistics showed the average number of days between the date of filing a design patent application and the date of granting a design patent had continuously decreased over time.[880] As shown in Figure 4.5, the design patent application pendency had considerably improved since 2000, and the Thai DIP began the e-filing system for patents launched on May 3, 2015. However, there is a need to improve the design patent registration process further. The current practice is still lackluster and has room for improvement so that there will be fewer hurdles for industrial design protection in Thailand. In sum, the registration and the substantive examination required under the Thai design patent regime are excessively time-consuming, providing inadequate protection for industrial designs.

877 *See supra* 4.2.2 (analyzing the statistics about the design patent registrations in Thailand).
878 *A diagram of design patent registration process*, DIP, https://www.ipthailand.go.th/th/design-patent-005.html (last visited Dec. 1, 2021).
879 *See id*.
880 *See* Figure 4.5 (showing analyzed date on the design patent application pendency).

4.2.4 Conclusion

As analyzed in 4.2.1 and 4.2.2, the legal and practical situations regarding industrial design protection bear witness to the insufficiency of the current protection regime for industrial designs in Thailand. Both legal and practical situations reflect the ill-regulated framework of Thai industrial design protection regarding the interface between design patents and copyright. As a result, there are overlaps between the two regimes due to the subject-matter eligibility and the requirements for protection under copyright and patent laws, as analyzed in 4.2.1.1 and 4.2.1.2. The statistical analysis on design patent protection from 1979, the enactment of the Thai Patent Act 1979, to 2019 demonstrated practical situations of protecting industrial designs under the Thai design patent regime: design patent applications had been on the rise during the 40 year period, indicating the increasing importance of design patents in Thailand: the 40 year-number of design patent applications were averaged about 35.5 percent of all patent applications. The average number of days between the date of filing a design patent application and the date of granting a design patent had decreased over the years; however, the allowance rate of design patents remained less than that of the US design patents, as analyzed in 4.2.2.2. Additionally, problems of adopting the patent regime and relevant policy choices contribute significantly to the inadequacy of the Thai design patent regime, leading to the interface between design patents and copyright for industrial design protection, as discussed in 4.2.3.

Protecting industrial designs under the patent regime currently presents several problems for effective protection in Thailand. Such problems are, for instance, the commencement of protection upon registration, the costs and efforts for design patents, and the relatively short period of protection, as discussed in 4.2.3.1. Aside from the intrinsic problems of the patent regime, relevant policy choices also caused problems in protecting industrial designs, contributing to the inadequacy of the Thai design patent regime, as discussed in 4.2.3.2. Significant issues include the obscure and narrow definition of patentable subject-matter, the questionable eligibility requirements, the absence of an explicit provision on the functionality exclusion, and the cumbersome processes for registration. Consequently, these problems present obstacles to design patent protection: satisfying the

requirements for protection can be challenging and even more so in the absence of a grace period and that of an exception to unlawful disclosures under the Thai design patent regime. Despite existing loopholes and changes in circumstances, the statutory provisions regulating industrial design protection have remained unchanged for more than twenty years.[881] These shortcomings result in the inadequacy and the inefficacy of industrial design protection in Thailand.

4.3 Solutions to the Interface between Design Patents and Copyright for Industrial Design Protection: Should copyright protect industrial designs?

The interface between design patents and copyright as focused on in this dissertation is pertinent to questions about whether and to what extent cumulative protection with copyright should be permissible for industrial designs. As discussed in 4.2.3, the inadequacy of the Thai design patent regime implicitly emphasizes the role of copyright protection for industrial designs in Thailand. Accordingly, the advantages and disadvantages of copyright for industrial designs should be taken into consideration. It is noteworthy that the discussion on the importance of copyright for industrial design protection is not to choose copyright over design patents but to ascertain whether and to what extent copyright should protect industrial designs concurrently with design patents. This section first analyzes the importance of copyright for industrial design protection in Thailand and later discusses approaches to the design/copyright interface in the final part of this chapter.

4.3.1 The Importance of Copyright for Industrial Design Protection in Thailand

Copyright protection is an available means of protection for industrial designs in several jurisdictions, as discussed in chapter 3. In Thailand, the broad statutory definition of works of applied art causes an overlap with industrial designs eligible for design patent protection, as discussed in 4.1.5 and 4.2.1. The inadequacy of design patent protection, as discussed earlier, indicates that copyright is necessary to protect industrial designs and that cumulative protection with copyright deserves

[881] Thailand's Patent Act B.E. 2522 (1979) was lastly amended by Act (No.3) B.E. 2542 (1999).

consideration for more effective protection of industrial designs in Thailand. As Landes and Posner noted:

> The efficient level of protection is found at the point at which the social benefits from further protection just equal the social costs. Above that point, additional protection increases cost more than benefits; below it, the benefits of strengthening copyright protection are greater than the resulting costs.[882]

This section discusses the importance of copyright for industrial design protection, analyzing advantages and disadvantages to understand the role of copyright in protecting industrial designs, particularly in Thailand. An analysis of the advantages of copyright aims to support copyright protection for industrial designs and cumulation, while an analysis of disadvantages of copyright is to consider factors in regulating the proper scope of cumulation. The discussion is a precursor to the question about approaches to the design/copyright interface, as will be discussed in 4.3.2.

4.3.1.1 Analyzing advantages of copyright protection for industrial designs

Copyright offers several advantages justifying the protection of industrial designs, particularly in the case of Thailand. Due to the inadequacy of design patent protection, copyright is a supplement to the protection and may be the only option safeguarding industrial designs in cases falling outside the scope of design patents.[883] The justifications supporting copyright protection for industrial designs in Thailand are mainly due to the objective of copyright, the artistic nature, the moral rights, the immediate and costless protection, and the long-term exclusivity.

(i) The objective of copyright

An often-claimed justification of copyright protection for industrial designs is an objective of copyright law in encouraging creativity for artistic creations. The objective is well-supported by the

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[882] WILLIAM M. LANDES & RICHARD A. POSNER, THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW 66 (2003) [hereinafter "LANDES & POSNER, THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW"].

[883] *See supra* 4.1.4 and 4.1.5 (examining industrial design protection under the Thai copyright and patent laws).

incentive theory justification, which underlines the importance of incentivizing the production of artistic works and overcoming the problem of appropriability.[884] The absence of copyright protection will be detrimental to intellectual creations by diminishing incentives for creativity. Arguably, the incentive theory is not entirely justified in a case where designers merely follow instructions under a contract of employment since a dominant incentive for works made for hire or under commission is prone to be a specific financial gain than legal rights to monopolization.

As examined in 4.1.5, copyright protection benefits industrial design proprietors differently from design patent protection. The Thai Copyright Act provides explicitly that copyright automatically vests in the employee creating the work during the course of an employment contract unless there is a writing agreement to the contrary.[885] The ownership of rights for a work created by an employee is precisely the opposite of a design patent. The employer has the right to apply for a patent unless the contract states otherwise,[886] although the employee has the right to receive remuneration.[887] Copyright is thus a powerful tool for incentivizing creativity from the designers even in the case of works for hire because creativity still plays a vital role in creating industrial designs notwithstanding the source of inspiration for the creations.

Furthermore, industrial design proprietors have a bundle of exclusive rights for the protected works under the Thai Copyright Act.[888] The exclusive rights guarantee that creative endeavors dedicated to creating industrial designs are not in vain. Industrial design proprietors greatly benefit from the right to reproduce and adapt copyrighted works. The reproduction right proves useful in protecting industrial designs from unauthorized reproductions by any means broadly covered under the Thai copyright law.[889] The right to adaptation also further benefits the industrial design proprietors in controlling reproductions and any alterations of the protected works.[890] Equipped with these rights, industrial design proprietors have a shield against the harmful effects of design piracy and preserve

884 *See* Reichman, *Charting the Collapse*, *supra* note 118, at 494 n.87.
885 *Id.* § 9, *supra* note 755 (providing details about the provision).
886 *Id.* § 11, *supra* note 712, 713, (providing details about work for hire under the Thai Patent Act).
887 *Id.* § 12, *supra* note 714 (quoting the provision).
888 *Id.* § 15, *supra* 4.1.5 (providing details about copyright protection for industrial designs in Thailand).
889 *Id.* § 4.
890 *Id*.

the full benefits of their creative endeavors. The objective of copyright is thus advantageous to the protection of industrial designs because copyright offers economic incentives, rewarding industrial design proprietors with the bundle of rights in exchange for their creativity in the original creations.

(ii) The moral rights

Apart from economic rights, moral rights are available for industrial design proprietors under the Thai copyright law.[891] Industrial design proprietors benefit from moral rights in several aspects. Moral rights play a significant role in maintaining the value of industrial designs and the good image of industrial design proprietors because they empower the industrial design proprietors to prohibit any changes that are detrimental to the protected industrial designs and the reputation of the industrial design proprietors. The attribution and integrity of one's self-expression in the work should be protected regardless of an industrial application. The right to attribution is also appropriate for industrial designs because it allows the industrial design proprietor to be recognized as the creator of the work. Having the right to protect the name and integrity of their works can be invaluable for industrial design proprietors, especially famous ones. Such recognition is thus rewarding for industrial design proprietors. Moreover, the right to indicate the industrial design proprietor's name and the right to preserve the integrity of the work contribute to the distinctiveness of the industrial design, making it easier to be eligible for trademark protection.

The moral rights provided under the Thai copyright law enable industrial design proprietors to maintain the original integrity of their works,[892] which matters a great deal to the industrial design proprietors who cherish the artistic identities expressed in their works. In this regard, the Hegelian personality theory supports the notion, recognizing the strong association between property rights and personalities, thereby justifying copyright in industrial designs which involve the creators'

[891] *Id.* § 18; *see supra* note 763 (providing details about the moral rights).
[892] Michael Crew, *Undesirable in Theory, Absurd in Practice - the Protection of Industrial Designs in England and New Zealand*, 2 AUCKLAND U. L. REV. 1, 4 (1975).

personalities as creative and artistic expressions.[893] The moral rights enshrined in copyright law are, therefore, useful for industrial design proprietors who wish to reap complete rewards, including non-economic interests, from their creations.

(iii) The artistic nature

Another argument for protecting industrial designs by copyright stems from the nature of industrial designs associated closely with artistic works. There is a strong association between an industrial design and art since an industrial design has a characteristic of artistic works and is, in some cases, based on the actual artworks. On the other hand, opponents to this view argue that industrial designers are not necessarily considered artists: in many cases, it is doubtful whether a designer is an artist, engineer, or corporate servant. Such a view, however, is not convincing enough to deny an association between industrial designs and art when considering that it focuses on the creator of the work rather than the work itself. Another extreme view of art is that "[a]rt for art's sake is heartless and soon grows artless; art for the public market is not art at all, but commerce; art for the people's service is a noble, vital, and permanent element of human life."[894] This statement ignores the reality that art has another dimension of being a vehicle for other benefits apart from its inherent merit. Industrial designs are not only works of applied art for the public market, but also for the people's service. It appears overstated to conclude that these purposes affect the status of art or the artistic nature of industrial designs. Even if they serve a commercial purpose, the artistic merit should not be tarnished or lost.

Arguably, industrial designs are not artworks in the traditional sense, but they can render the same benefits as art, transforming ordinary objects into a kind of artwork in some cases. Without designs, those objects are mundane and uninteresting when compared to the objects embodying

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[893] *See generally* Hughes, *The Philosophy of Intellectual Property*, *supra* note 622 (providing a detailed analysis of the personality justification or Hegelian philosophy emphasizing on an expression of the self); PETER DRAHOS, A PHILOSOPHY OF INTELLECTUAL PROPERTY (2016).

[894] *See* the dissenting opinion of Justice Manton in the case of US v. One Book Entitled Ulysses by James Joyce, 72 F.2d 705, 711 (2d Cir. 1934).

designs on their appearances. Industrial designs and art are inextricably intertwined, albeit with different public perceptions of aesthetic quality.[895] Industrial designs are closely relevant to works of applied art, and the designer's personality expressed in the artistic features is relevant to subject-matter protectable under copyright law. The artistic nature, therefore, justifies copyright for industrial design protection.

(iv) The immediate and costless protection

Copyright affords copyright owners the exclusive rights to prevent unauthorized reproductions of industrial designs without requiring any formality. Unlike patent protection, copyright protection arises automatically upon the creation of "original works of authorship fixed in any tangible medium of expression."[896] The Thai Copyright Act provides that copyright subsists in works of authorship, irrespective of "the method or form in which such works are expressed."[897] In the new technological era, the sooner industrial designs are protected, the better because there is a risk of the rapid occurrence of design piracy, jeopardizing the interests of industrial design proprietors. This advantage of copyright protection compliments design patent protection because industrial design proprietors may rely on copyright to protect their industrial designs during the time before filing for design patent protection, provided the industrial designs are eligible for protection under copyright law. Hence, copyright protection provides an assurance that industrial designs receive protection immediately upon their creations, thereby preventing the loss of protection against unauthorized reproductions without any prerequisite to the protection, as opposed to design patents.

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[895] The Thai copyright law protects works of applied art regardless of their artistic quality; *see supra* 4.1.5 (describing copyright protection for industrial designs in Thailand).

[896] 17 U.S.C. § 102(a).

[897] Thai Copyright Act, § 6.

(v) The long-term exclusivity

An often-claimed advantage of copyright protection is that the proprietor of industrial designs can reap rewards of their intellectual creations for a long duration of copyright, acquiring remedies from people infringing their rights along the path. The copyright owner has a bundle of exclusive rights to exploit their works.[898] Whether industrial design proprietors deserve to reap the benefits of the long-term exclusivity is a debatable issue. Proponents of copyright for industrial designs would claim that industrial designs are no less deserving of the monopolistic rewards than the inventors of technical inventions or the authors of literary works. The supporting reason is that industrial designs are a driving force for the market because they make utilitarian articles aesthetically pleasing enough to stimulate a purchase based on that very appearance. The level of skills and efforts dedicated to creating such industrial designs are thus not minimal or insignificant when compared to other copyrightable artistic works. A positive stance toward copyright protection for industrial designs is that judicial decisions in several countries recognize the long-term exclusivity for industrial designs. For example, the German Supreme Court in the *Birthday Train* case eliminated a standard criterion imposing hardship on an industrial design to receive copyright protection.[899] Similarly, the Japanese Intellectual Property High Court in the *TRIPP TRAPP* chairs case recognized that copyright subsisted in the industrial design without the level of aesthetic merit comparable to fine art.[900]

The Thai copyright law specifically recognizes copyright of works that are not pure art, generously affording protection to works of applied art without hindrance regarding the level of aesthetic merit and functional aspects.[901] Industrial design proprietors of copyrightable works of applied art enjoy copyright exclusivity for twenty five years from the creation of the work or the first publication of the work.[902] The twenty-five year period is considerably longer than the ten-year period

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898 *See supra* 4.1.5 (providing details about the exclusive rights under the Thai copyright law).

899 *See* the *Birthday Train* case, *supra note* 316; *see also supra* 3.1.3.1 & *infra* 4.3.2.2 (providing details about the *Birthday Train* case).

900 Chiteki Zaisan Kōtō Saibansho [Intellectual Prop. High Ct.] Apr. 14, 2015, Hei 26 (ne) no. 10063 [hereinafter the "*TRIPP TRAPP* chairs" case]; *see infra* 4.3.1.2(ii).

901 Thai Copyright Act, § 4; *see supra* 4.1.5 and 4.2.1.1(i) (discussing the copyrightability of industrial designs in Thailand).

902 *Id.* § 22; *see supra* note 765 (providing details about the copyright terms).

of design patent protection. It is almost certain that industrial design proprietors would enjoy the long-term exclusivity offered by copyright since there are no costs incurred from receiving the benefits during the period, as opposed to design patent protection.

4.3.1.2 Analyzing disadvantages of copyright protection for industrial designs

The unharmonious approaches to cumulative protection with copyright in different countries signal some concerns over copyright in industrial designs. This section addresses the concerns that are disadvantageous for industrial design protection in Thailand. These concerns benefit the policymakers for future improvement and industrial design proprietors for their awareness of copyright protection for industrial designs in Thailand. The disadvantages are chiefly due to the threshold of originality, the subjective assessment of artistic features, the unregulated functional features, and the lengthy protection period.

(i) The threshold of originality

A disadvantage of copyright protection for industrial designs concerns the threshold of originality required for the copyrightability of industrial designs. As discussed in 4.1.5, the Thai Copyright Act does not elaborate on the threshold of originality required for copyright in industrial designs;[903] therefore, court interpretations are indispensable for understanding the requirements for protection.[904] By contrast, the UK CDPA 1988 expressly provides that copyright subsists in original artistic works[905] and that a design is not original if it is commonplace,[906] which means that the design must not be widely known in the relevant field to meet the requirement of originality. The originality requirement can be disadvantageous to fashion designs since the originality of fashion designs regarding normal wear tends to be minimal and insufficient to distinguish from the features

[903] *Id.* § 6 merely provides that copyright subsists in works of authorship, regardless of the form in which such works are expressed.
[904] *See supra* 4.1.5 (providing details about the requirements for protection in case law).
[905] *See* UK CDPA 1988, § 1(1)(a).
[906] *See id.* § 213(4).

unprotectable under copyright law. On the other hand, copyright protection can be advantageous for protecting *haute couture* designs,[907] which involves the creation of made-to-order works possessing the unique creativities of artistic elements applied to garments. The originality of industrial designs is, in several cases, doubtful since they do not necessarily have a unique characteristic such as that found in the articles hand-crafted in small workshops of the pre-industrial revolution era.

In Thailand, case law indicates that textile design proprietors experienced difficulty in obtaining copyright protection. In the *Traditional textile designs* case,[908] the Thai Supreme Court ruled that copyright did not exist in the plaintiff's textile designs influenced by traditional designs available in the public domain. The court reasoned that the plaintiff merely changed the size and added more detailed patterns of the traditional textile designs to fit the weaving machine. Such adaptations were not substantial enough to express the plaintiff's efforts and new imaginations. Hence, the plaintiff's textile designs were not works of applied art protectable under copyright law. The court's reasoning hints at the difficulty of obtaining copyright protection for textile designs, posing an undue hardship on industrial design proprietors due to the stringent threshold of originality for textile designs. The language in the case "new imagination" suggests that the threshold for copyright requires a new expression of the designer whose work relates to existing traditional designs. The court, however, did not address what would be regarded as passing the new imagination standard. Instead, it appeared that the novelty required would have to arise in the imagination of the court. Such consideration is prone to be subjective and therefore exacerbates legal uncertainty regarding the copyrightability of textile designs. The Thai Supreme Court assessed the level of originality in a way that could be overly subjective, thereby diminishing an opportunity to seek copyright protection. Such a standard of originality is arguably not justified to protect textile designs whose creations need to be inspired by prior works. The hurdle for the creations can potentially lessen an incentive to create textile designs inspired by traditional culture. Consequently, the threshold of copyright is not only disadvantageous

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907 S*ee supra* note 845 (describing the term "*haute couture*").

908 Thai Supreme Court Decision No. 14580/2557 [hereinafter "*Traditional textile designs"*].

to industrial design proprietors but also discouraging for promoting economic and cultural prosperities.[909]

(ii) The subjective assessment of artistic features

Another disadvantage of copyright protection for industrial designs relates to the subjective assessment of artistic features. In several countries, the assessment of artistic features plays a critical role in the recognition of copyrightability of works. Portugal and Germany, for example, used to adopt an additional criterion concerning the level of aesthetics or creativity required for copyright protection of industrial designs. Prior to the change of copyright requirement due to *Cofemel,*[910] the Portuguese copyright law only protected industrial designs having the artistic character as works of art.[911] Germany protected new and individual designs under design law and highly creative designs under copyright law. The so-called "*stufentheorie,*" or the two-step theory, was later abolished by the *Birthday Train* case.[912]

Nevertheless, the repeal of aesthetic assessment implicitly points out that although industrial designs are inevitably associated with art, they are not necessarily art. For example, industrial designs in the fashion industry can be easily considered art, although they do not immediately qualify as art. In contrast, industrial designs in other industries, notably the furniture industry, would require an additional look to be regarded as art. For example, in the Japanese case of *TRIPP TRAPP* chairs between *Stokke v. Katoji*,[913] the Intellectual Property High Court ruled on the copyrightability of the children's chair design, which Norwegian designer Peter Opsvik created for his son in 1972. The court held that the design of the *TRIPP TRAPP* chair was copyrightable: it was the first time that the Japanese court ruled that copyright subsisted in a work of applied art or an industrial design without

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909 Thailand's textile industry plays an important role in the country's GDP and export earnings. Textile design companies were regarded as the UK's "important interests," influencing the legislation related to design protection in the past; *see* Bently, *The Design/Copyright Conflict*, *supra* note 384, at 200.

910 *See supra* 3.1.3.3 (discussing the *Cofemel* case).

911 *See supra* note 337 (providing details about the Portuguese copyright law).

912 *See supra* 3.1.3.1 & 4.3.2.2 (providing details about the *Birthday Train* case).

913 The *TRIPP TRAPP* chairs case, *supra* note 900.

requiring the artistic quality comparable to that of fine art. Inevitably, what constitutes a status of art is almost guaranteed to be subjective since the assessment of aesthetics is usually involved. A criterion in determining which industrial designs deserve protection as equal to fine art cannot be easily standardized and is prone to provoke debates. Hence, a problem arises where an industrial design is eligible for copyright protection if they satisfy an additional standard about the level of aesthetics.

The Thai Copyright Act does not require the assessment of aesthetic merit of industrial designs qualifying as artistic works; however, the subjective assessment of industrial designs as to whether the artistic features are worthy of copyright protection has appeared in case law.[914] In addition, the definition of "works of applied art" gives rise to subjective assessment. For example, works of applied art are defined as works composed of copyrightable artistic works used "for utility apart from the appreciation in the merit of the work,"[915] and this definition requires an assessment of whether there is a merit existing in the work and the work is not exclusively used for the appreciation of the merit. The "merit" should be interpreted as referring to the quality of being a copyrightable artistic work as listed.[916] Copyright protection for artistic works is not without hindrance. A work is entitled to copyright protection if the work possesses artistic characteristics that are required to be regarded as an artistic work listed in a specific category under the Thai Copyright Act.[917] For example, a sculptural work requires that "a work must be a creation of a figure concerning tangible volume."[918] Without the characteristics, the work is not protectable as a sculptural work under copyright law. Nonetheless, the work failing to be regarded as a sculptural work may still qualify as a work of applied art, provided it embodies other listed artistic works and is used for a utilitarian purpose aside from the appreciation of its artistic feature.

In sum, an industrial design has to satisfy the characteristics of a copyrightable artistic work in determining the status of the work, although the aesthetic merit of the work is not required to satisfy

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914 *See supra* 4.1.5 & 4.2.1.1(i) (discussing copyright protection of industrial designs in Thailand); *see also* the *Traditional textile designs* case discussed earlier in this section.
915 Thai Copyright Act, § 4(7), *supra* note 744 (describing the provision).
916 *See id.; see also supra* note 26 (describing the listed artistic works mentioned in (1) to (6)).
917 Thai Copyright Act, § 4, *supra* note 737 (referring to the provision).
918 *Id.* § 4(2).

the criterion. The determination of the category of work is also not standardized due to the vague definitions and the judicial subjectivity.[919] Despite the absence of a statutory mandate to assess the aesthetic merit, industrial designs cannot escape the subjective assessment regarding the artistic features protectable under copyright law.

(iii) The unregulated functional features

The functional features cause a vexed issue regarding copyright protection for industrial designs because industrial designs combine both artistic and functional features, as discussed in 2.1.1. Although several countries impose a restriction excluding the functional features of industrial designs from copyright protection, the Thai copyright law is lenient on the issue due to the ill-regulated boundary of copyrightable industrial designs, as discussed in 4.1.5 and 4.2.1.1(i). Unlike US law,[920] the statutory definition of copyrightable works of applied art does not require that the utilitarian and ornamental features can be identified separately and capable of existing independently. The Thai Copyright Act also does not stipulate that the protectable artistic features must not be solely dictated by technical functions, as prescribed in the EU Design Regulation and the UK Registered Design Act 1949.[921] Put it succinctly, the Thai copyright of works of applied art may afford protection even to industrial designs failing to be protected in the US, EU, and UK.

In the UK, functional features were excluded from protection since 1919, although they were eligible for protection under design legislation in the past.[922] Currently, the CDPA 1988 excludes from protection "features of shape or configuration of an article which — (i) enable the article to be connected to, or placed in, around or against, another article so that either article may perform its function, or (ii) are dependent upon the appearance of another article of which the article is intended by the designer to form an integral part."[923] The UK laws provide explicit provisions excluding 1)

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919 *See supra* 4.2.1.1(i) (discussing copyrightable subject-matter under the Thai Copyright Act).
920 *See* 17 U.S.C. § 101 (2012); *see also supra* 3.3.3.1 (discussing the copyrightability of industrial designs in the US).
921 *See* Design Regulation, art. 8(1) and the Registered Design Act 1949, § 1C(1).
922 *See supra* 3.2.1.2 & 3.2.1.3 (providing details about the UK legislation).
923 UK CDPA, § 213 (3)(a)(b).

features related to must-fit and must-match features under the CDPA 1988 and 2) features solely dictated by technical functions under the Registered Design Act 1949.[924]

In the US, industrial designs having outright functionalities are excluded from copyright protection, notwithstanding the exquisite artistic features. The US copyright law excludes useful articles from protection unless the separability test is met.[925] Copyright subsists in PGS works incorporated in useful articles only when the PGS works can be identified separately and capable of existing independently from the utilitarian aspects. The separability threshold for copyright is, thus, more stringent than the doctrine of "merger" of copyright which excludes the underlying ideas from protection except only where an idea and its expression are inseparable. Due to the thresholds for copyright, the US strictly regulates the protection of industrial designs so that the copyright monopoly is not granted to functional features.

In summary, unlike the US law, the Thai copyright law is too lax on the copyrightability of industrial designs, affording protection to industrial designs that are not necessarily PGS works; and unlike the UK laws, there is also no restriction imposed on the functionality in industrial designs. Consequently, purely functional industrial designs may qualify as copyrightable subject-matter and benefit from copyright protection despite the functional features essentially dictating the artistic features. Such a broad coverage may lead to monopolies of the protected functional features and therefore merit consideration against copyright protection for industrial designs in Thailand.

(iv) The lengthy period of protection

The lengthy period of protection raises concern over copyright protection for industrial designs. The comparative analyses indicate that copyright protection is not available or severely restricted for industrial designs in several countries because there is concern over the adverse effects of competition.[926] Developing countries voiced concern during the drafting process of the TRIPS

[924] *See supra* 3.2.1.4(iv) & 3.2.1.4(i) (describing the CDPA 1988 and the Registered Design Act 1949).
[925] *See* 17 U.S.C. § 101 (2012); *see also supra* 3.3.3.2 (discussing the separability test).
[926] *See, e.g., supra* 3.1.3.3 (discussing the *Cofemel* case).

Agreement in that granting exclusive rights to the intellectual property rightsholders for too long might hinder technology transfer.[927] Enforcing intellectual property rights more than necessary can be detrimental to creativity and innovation.[928] As Thomas Jefferson viewed that an important question to consider was whether the benefits of incentivizing innovation were "worth to the public the embarrassment of an exclusive patent."[929] The detrimental effects resulting from the economic cost of precluding designs in the public domain may outweigh the rewards granted to the rightsholders. Although copyright may provide a competitive edge to industrial design proprietors, such a competitive edge may be another step towards monopolization, having adverse effects on the competition and creativity.

First, the long-term exclusivity can restrain competition in the market of related industrial designs, leading to misuse of copyright over the protected works by exploiting the granted monopoly power during a long period, as opposed to the more restricted period of protection afforded by design patents. As Landes and Posner pointed out that the short term of protection for a design patent "reflects the lower cost of designing ornamental versus functional components of commercial products and hence the more limited monopoly required to recover them."[930] In this regard, copyright protection would unduly distort competition if the appropriate level of protection is not maintained in respect of industrial designs commonly involving consumer welfare. The monopoly of industrial designs would directly affect consumers since the monopolist would be able to charge a high price for products, overly exceeding the costs to recover from their investment. Consumers would inevitably incur expenses when there are no other alternatives available in the market due to the monopoly.

Furthermore, the lengthy protection period can even diminish creativity because industrial designs falling into the public domain can be used as a model for newer industrial designs. Previously used artistic features can inspire new industrial designs in various sectors and alleviate frustration from

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927 *See, e.g.*, Sanjaya Lall, *Indicators of the relative importance of IPRs in developing countries* (2003).

928 *See, e.g.*, Ezieddin Elmahjub, *A Case for Flexible Intellectual Property Protection in Developing Countries: Brief Lessons from History, Psychology and Economics*, 38 E.I.P.R. 31 (2016).

929 Lemley, *Property, Intellectual Property, and Free Riding*, *supra* note 135, at 1031.

930 LANDES & POSNER, THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW, *supra* note 882, at 333.

the inherent limitation of some artistic features such as shape or configuration. The long exclusivity of designs protected by copyright gives rise to less freedom of expression in designing products under the legal restrictions and conditions imposed by influencing factors such as technical and economic considerations.[931] Modern designs, for instance, tend to change from one artistic feature to another more rapidly than before due to the influence of new technologies. The choice of using artistic features, such as a product shape, can be restricted to the technology embodied in an industrial design. The less access to designs in the public domain can thus impede designers' progress to create new designs due to the limited freedom of designing choices. Excluding designers from freely using the aesthetic features can hamper innovation rather than incentivize one: the longer the artistic features are protected under intellectual property protection, the more difficulties designers encounter in creating new designs.

The Thai Copyright Act explicitly stipulates the term of copyright protection for works of applied art, which is much shorter than that of other copyrightable artistic works. Copyright generally lasts for the author's life plus fifty years after the author's death, whereas copyright of works of applied art lasts for twenty-five years.[932] Hence, the lengthy period of protection is not of grave concern for industrial designs qualifying as copyrightable works of applied art under the Thai copyright Act. The twenty-five-year term of protection is not excessive when considering that Article 7(4) of the Berne Convention provides that the term of protection for works of applied art "shall last at least until the end of a period of twenty-five years from the making of such a work." The term of protection is also equal to the maximum duration of protection afforded by sui generis registered design rights in several jurisdictions, such as the EU and UK.[933]

In summary, there are justifications for copyright to improve industrial design protection further: copyright morally justifies the protection against design piracy and economically justifies the

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931 *See* Reichman, *Design Protection after the Copyright Act of 1976*, *supra* note 600, at 280.

932 Thai Copyright Act, § 22 ("Copyright in a work of applied art shall last for twenty five years after the creation of the work; but if the work has been published during such period, copyright shall last for twenty five years after the first publication of the work.").

933 *See supra* 3.1.2 & 3.2.1.4(i) (providing details about design protection in the EU and UK).

efforts of industrial design proprietors.[934] The protection of industrial designs has economic and non-economic justifications balancing the interests of industrial design proprietors and those of the public. The economic interests associated with industrial designs play a vital role in the protection of industrial designs, while the non-economic interests benefit the society at least by the presence of creativities resulting from industrial designs. A fundamental purpose of copyright in encouraging creativity is appropriate for protecting industrial designs whose creativity is at the core of the creations. Thus, long-term exclusivity can be a powerful incentive in return for their creative endeavors. For industrial designs, copyright is an effective legal tool presenting a golden opportunity for the monopolistic rewards that help gain a competitive edge and trump competitors,[935] enabling the rightsholders to reap the benefits of copyright for a long period. In Thailand, copyright protection for industrial designs appears more desirable than design patent protection due to reasons previously discussed in this chapter. In the absence of adequate protection under patent law, copyright is indispensable for preserving the interests of industrial design proprietors, serving as a complementary means of protection in addition to the Thai design patent regime.

4.3.2 Approaches to the Design/Copyright Interface for Industrial Design Protection: Which one is right for Thailand?

Having comparatively scrutinized industrial design protection in the EU, UK, and US, there are different approaches to the interface between industrial designs and copyright during different periods throughout history. The approaches to cumulative protection with copyright can be categorized into four main groups: non-cumulation (demarcation), partial cumulation, total cumulation, and full cumulation (dual protection).

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934 *See supra* 2.3 (discussing economic and non-economic justifications for industrial designs).

935 *See* Afori, *Reconceptualizing Property in Designs*, *supra* note 129 (concluding that design is more appropriate to the copyright paradigm); *But see* Moffat, *supra* note 659, at 611 (discussing in detail why "copyright law is not the right approach" for industrial design protection).

The definitions of these approaches used in this dissertation are as follows:[936] 1) non-cumulation refers to an approach that does not permit dual protection of industrial designs, thereby clearly demarcating the boundary between industrial designs and copyright; 2) partial cumulation refers to an approach that permits cumulative protection with copyright, but cumulation is restricted or is subject to certain conditions; 3) total cumulation[937] provides automatic cumulation with copyright due to the assimilation of protection requirements and the theory of the unity of art, offering no distinction of works of art for copyright protection; and 4) full cumulation or dual protection refers to an approach that permits cumulative protection with copyright, provided industrial designs satisfy all the requirements for protection under both design and copyright laws. Unlike total cumulation, full cumulation does not provide automatic cumulation with copyright because the requirements for protection under copyright and design laws are not assimilated.

This section comparatively analyzes these approaches to cumulative protection with copyright, leading to the question of which approach Thailand should implement in dealing with the interface between design patent protection and copyright protection for industrial designs.

4.3.2.1 Non-cumulative protection: Demarcation

The non-cumulation or demarcation is an approach that does not offer copyright protection for industrial designs with a firm belief that they should be demarcated from copyright. Put simply, copyright does not apply to protect industrial designs eligible under other protection regimes. The gist of non-cumulative protection is to severely restrict copyright protection since affording copyright to any industrial designs has some critical disadvantages to the public interest.[938] When copyright law

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936 The definitions are similar to those defined in literature: *see* ESTELLE DERCLAYE, THE COPYRIGHT/DESIGN INTERFACE: PAST, PRESENT AND FUTURE 5-6 (Estelle Derclaye ed., 2018) [hereinafter "DERCLAYE, THE COPYRIGHT/DESIGN INTERFACE"]; SUTHERSANEN, DESIGN LAW IN EUROPE, *supra* note 68, at 427.

937 Total cumulation is used interchangeably with full cumulation in literature. However, the term "total cumulation" used in this dissertation refers to an approach described in DERCLAYE, THE COPYRIGHT/DESIGN INTERFACE, *supra* note 936 and is unique to France, as discussed in 4.3.2.3.

938 *See supra* 2.4.3 & 4.3.1.2 (discussing effects of overlapping protection and disadvantages of copyright protection for industrial designs, respectively).

protects the bulk of industrial designs, it also means that there are many industrial designs excluded from the public domain. Consequently, the overprotection of industrial designs is prone to affect the use of designs protected under intellectual property protection, leading to monopolies in the use of those designs. In the absence of a competitive market, the price advantage set by a monopoly would negatively affect the interests of consumers who have less or no alternative to avoid paying the high costs for consuming the products embodying the protected industrial designs.

Several countries adopted non-cumulation or demarcation of rights for industrial designs in the past. The non-cumulation is also known as the Italian theory of dissociation,[939] absolutely denying copyright protection to industrial designs from 1925 to 2001.[940] After 2001, Italy eliminated the dissociation doctrine due to the implementation of the Design Directive.[941] The UK implemented the demarcation during the period between 1912 and 1968:[942] notably, the Copyright Act 1911, § 22 excluded designs that were registrable or intended to be industrially applied from the protection by copyright, preventing "artistic copyright and industrial copyright overlapping;"[943] and the Copyright Act 1956, § 10 demarcated the scope of rights for designs registered or used in mass production by denying copyright infringement for such designs.[944] In the US, the Copyright Office historically opted for non-cumulation under the Copyright Act 1909 under which works of art mean work of fine art encompassing "model and design" as protectable subject-matter: the regulation issued by the Copyright Office clearly defined "works of fine art" as referring to works of fine art and specified that "productions of industrial arts utilitarian in purpose and character are not subject to copyright registration, even if artistically made or ornamented."[945] The US current legal framework under

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939 *See* Reichman, *Design Protection in Domestic and Foreign Copyright Law, supra* note 60, at 1182 ("[T]he theory of dissociation starts from the premise that industrial art is inextricably bound up with industrial products.").

940 DERCLAYE, THE COPYRIGHT/DESIGN INTERFACE, *supra* note 936, at 269; *see* Reichman, *Design Protection in Domestic and Foreign Copyright Law, supra* note 60, at 1182 n.200 ("The criterion of separability arises from the so-called theory of dissociation, officially adopted in article 2(4) of the Italian Copyright Law of April 22, 1941 (No. 633)".).

941 *See supra* 3.1.3.2 (describing the Italian legislative background in brief).

942 Bently, *The Design/Copyright Conflict*, *supra* note 384, at 171.

943 *Id.* at 198 n.116.

944 *See supra* 3.2.1.4(ii) (providing details about the Copyright Act 1956).

945 Rules and Regulations for the Registration of Claims to Copyright, Copyright Office Bulletin No. 15, 8 (1910). The term "work of fine art" was later changed to "work of art" in 1949; *see* Ginsburg, *US Copyright Protection for Applied Art*, *supra* note 653.

copyright law maintains the exclusion of works attached to useful objects from copyright protection unless they are in the category of PGS works of which the ornamental features can be separable either physically or conceptually and exist independently from the utilitarian aspects of the useful articles.[946]

As discussed in 3.3.3.2, the separability test added a further complication to aesthetics and functionality, leading to approaches separating the two features for protection under copyright law. The functionality exclusion prevents a monopoly of the whole functionality and ensures that everyone can exploit such functionality. A distinct disadvantage of the separability test is the convoluted criteria separating artistic and functional elements in industrial designs to ascertain whether they are worthy of copyright protection. This is difficult, if not impossible, since there is a design philosophy of integrating aesthetics and functions in designing useful articles.[947] Industrial designs are also closely linked to functionality. A rudimentary principle governing a designing process is an integral part of what makes the separability test conceptually possible but almost practically impossible. In most cases, industrial designers concern with both functional and aesthetic aspects when designing products aimed at commercial success.

In addition to the separability test, another approach to non-cumulation is to implement the doctrine of elections, which the US court recognized in 1914.[948] An advantage of electing only one intellectual property right is that it solves the problem of overlaps in ways that preserve the theoretical justifications underlying each intellectual property regime. It also prevents the abuse of intellectual property rights since only one alternative exists for protecting industrial designs. Nevertheless, it can be an unnecessary restriction of intellectual property rights because industrial design proprietors can only benefit from the protection under one intellectual property regime. Significant factors affecting the election of intellectual property protection are the rights conferred by each intellectual property. Design patents and copyright afford different types of rights in terms of the scope of exclusions and duration of protection, for instance. Those differences have different impacts on the protection of

946 17 U.S.C. § 101; *see supra* note 605 (quoting the provision).
947 *See* Susanna Monseau, *The Challenge of Protecting Industrial Design in a Global Economy*, 20 TEX. INTELL. PROP. L.J. 495 (2012); *see also supra* 2.1.1 (discussing design philosophies).
948 *See supra* note 614, 616; *see also supra* 3.3.3.1 (providing details about the doctrine of elections).

industrial designs. The non-cumulation places a burden on industrial design proprietors to elect the protection regime at the outset. Some industrial design proprietors will face difficulty choosing because their works are protectable under several laws. Subsequently, there is a possible chance that industrial design proprietors make a wrong decision due to the lack of sufficient knowledge on how to protect their works. An obvious disadvantage arises because the industrial design proprietors need to forego one protection regime for the other due to the non-cumulation of rights. Such an approach would jeopardize the interests of industrial design proprietors and even contradict the right to culture enshrined in Article 27 of the Universal Declaration of Human Rights, which states:

> Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits.
>
> Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author.[949]

Notably, an indication that non-cumulation may not be genuinely best for protecting industrial designs demonstrates the recent trend of statutory provisions and judicial decisions in many countries embracing copyright protection for industrial designs. Some countries implementing non-cumulation in the past also became more lenient toward the copyrightability of industrial designs. The doctrine of election in dealing with the interface between design patents and copyright for industrial design protection is unlikely to function well in the modern world, appearing contradictory to the purpose of incentivizing the creators who deserve to be fully rewarded for their creative endeavors.

4.3.2.2 Partial cumulation: Aesthetic merit and restricted term

As discussed in chapter 3, the partial cumulative protection approaches appeared in the laws of Germany and the UK. Partial cumulation requires the distinction of art in a way that an industrial design must have a "marked artistic character"[950] or aesthetic merit comparable to that of works of fine art.[951] Adopting the approach means that industrial designs failing to satisfy the aesthetic standard

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[949] The United Nations 1948. *Universal Declaration of Human Rights*, art. 27.
[950] *See supra* 3.1.3.3 (providing details about a country adopting the standard).
[951] *See supra* 3.1.3.1 (describing the implementation of the requirement in Germany).

will fall outside the scope of copyright protection. Overlapping protection will thus occur less in such cases. The gist of partial cumulation is to allow cumulation between design and copyright protection under some conditions, such as satisfying the criterion of aesthetic merit assessed by the court.

There are difficulties in assessing aesthetic merit of industrial designs for copyright protection. Such a condition has a severe disadvantage due to judicial subjectivity regarding the assessment. Determining aesthetic merit can be difficult if not impossible: not everyone, including judges, is in the best position to consider whether and to what extent a work contains aesthetic merit. Judges do not generally display proficiency in the art, and therefore, should refrain from judging aesthetic merit of industrial designs because of their lack of knowledge in the art world, albeit being knowledgeable in the art.[952] This is because even experts in the field face difficulties in reaching a consensus on the aesthetic merit of works. Judging the aesthetic merit of any work of art is inherently subjective.[953] Any attempt to create standards delineating the legal protection of industrial designs is less subjective at best. It is not the case in the real world to objectively assess the aesthetic merit of industrial designs or any works of art: doing so is unlikely to be enough to justify the legal protection for creative efforts of the creators, not without the questionable degree of artistry that the judges have for assessing the works.

Assessing the aesthetic merit is controversial and opposed in many countries as Justice Holmes noted in the US case of *Bleistein* that "it would be a dangerous undertaking for persons trained only to the law to constitute themselves, final judges of the worth of pictorial illustrations, outside of the narrowest and most obvious limits." [954] Moreover, "aesthetic judgments are dangerous undertakings for courts,"[955] particularly when accompanied by the unsettled legal framework. The *Bleistein* nondiscrimination principle affirmed the denial of distinguishing art to assess aesthetic merit

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952 *See* Reichman, *Design Protection and the New Technologies, supra* note 7, at 128 n.819 (advocating that it would be "an anathema to copyright" if judges have to evaluate the aesthetic merits of designs).

953 The value of famous paintings is assessed by not their actual aesthetic merits but rather the previous owners of them. *See also* Hughes, *The Philosophy of Intellectual Property*, *supra* note 622 at 33 (discussing the degree of arts).

954 Bleistein, 188 U.S. at 251; s*ee supra* note 620; *see also supra* 3.3.3.1 (providing details about *Bleistein*).

955 Robert Kirk Walker & Ben Depoorter, *Unavoidable Aesthetic Judgments in Copyright Law: A Community of Practice Standard*, 109 NW. U. L. REV. 343 (2016).

of copyright protection. The determination of what makes an industrial design aesthetically pleasing varies from person to person. Judging art is rarely objective because it is a by-product of perception, often coming from a prejudiced mind. Granting copyright protection based on the assessment of aesthetic merit is inherently arbitrary. Although judges may be provided with specific guidelines to minimize subjectivity, differing views of the aesthetic evaluation are still possible: problems are inevitable because of the unavoidable subjectivity in evaluating aesthetic aspects of works.[956]

Consequently, the assessment of aesthetic merit for the copyrightability of industrial designs, which used to be the prevalent practice in several countries, has been abandoned. In Germany, before the prominent decision in the "*Birthday train"* case,[957] the copyright threshold was higher for industrial designs due to the required level of creativity, which made it harder to obtain copyright protection. Such a legal treatment was subject to the two-tier theory under which only highly creative designs are protected by copyright.[958] The *Birthday train* case altered the judicial precedent of considering the different levels of aesthetic merit for the copyrightability of industrial designs.

Other criteria imposed on cumulative protection include using the number of product designs manufactured to restrict the term of protection under copyright law. As discussed in 3.2.3, the UK implemented partial cumulation by restricting copyright protection for certain industrial designs.[959] The CDPA 1988, § 52 limited the term of protection for artistic works that industrially manufactured more than fifty copies: such works were protected by copyright for twenty-five years instead of the creator's lifetime plus seventy years, afforded to other artistic works.[960]

Moreover, the UK legislation regulates the interface between design rights and copyright by demarcating the scope of infringement and limiting copyright in functional designs. The CDPA 1988, § 51 states that "it is not an infringement of any copyright in a design document or model recording or embodying a design for anything other than an artistic work or typeface to make an article to the

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956 *See supra* 4.3.1.2(ii) (discussing the subjective assessment).
957 *See supra* note 316; *see also supra* 3.1.3.1 (describing about the *Birthday train* case).
958 Ohly, *The Case for Partial Cumulation in Germany*, *supra* note 317 at 155.
959 *See supra* 3.2.3 (discussing the interface between design and copyright protection in the UK).
960 The provision was repealed in 2016. *See supra* 3.2.1.4(iv) & 3.2.3.2 (providing details about the CDPA 1988, § 52).

design or to copy an article made to the design."[961] In this regard, it is an infringement of copyright only when making an article by copying a design document or model recording embodied an artistic work. The provision appears contradictory to the *Cofemel* case since it imposes the criteria of aesthetic merit as a condition for enforceable copyright protection.[962] The term "design" in the provision meant only "the shape or configuration (whether internal or external) of the whole or part of an article, other than surface decoration."[963] The surface decoration is thus not a "design" and cannot be protected by the UK unregistered design right.[964] Therefore, an infringement of the surface decoration will not constitute an infringement of design right since the legislation excludes surface decoration from design right protection.[965] The CDPA 1988, § 236 also sets forth that "[w]here copyright subsists in a work which consists of or includes a design in which design right subsists, it is not an infringement of design right in the design to do anything which is an infringement of the copyright in that work." Put simply, an infringement of copyright does not constitute an infringement of design rights for works protected under both UK design rights and copyright.

As for the EU, partial cumulation is an alternative approach that EU Member States may choose to implement for allowing cumulation between design rights and copyright. Several EU Member States, such as Portugal, Germany, and Italy, adopted partial cumulation, requiring some conditions for the copyrightability of industrial designs.[966] However, adopting partial cumulation is not without hindrance because it is subject to conditions interpreted by the CJEU, as discussed in the *Flos, Cofemel, and Brompton* cases.[967]

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961 CDPA 1988, § 51(1).
962 *See supra* 3.1.3.3 (discussing the *Cofemel* case).
963 CDPA 1988, § 51(3).
964 *Id.* § 213(3)(c) ("design right does not subsist in surface decoration.").
965 *Id*.
966 *See supra* 3.1.3 (discussing relevant cases concerning the copyrightability of industrial designs).
967 *See supra* 3.1.3.2, 3.1.3.3, and 3.1.3.4 (discussing the *Flos, Cofemel* and *Brompton* cases).

4.3.2.3 Total cumulation: The theory of the unity of art

France was the only EU Member country implementing the total cumulation approach, affording automatic cumulation with copyright protection for industrial designs regardless of their industrial applications from 1902 until the implementation of the Design Directive in 2001. [968]. There was no demarcation between pure art and industrial art,[969] hence, there was no discriminatory standard of copyright protection for industrial designs. Such an approach stemmed from the theory of *'unité de l'art'* [hereinafter the "theory of the unity of art"], established by Eugéne Pouillet, a leading proponent of the unity of art theory.[970] The French courts allowed the total cumulative protection automatically with copyright to all types of designs, including the purely functional ones, due to the assimilation of requirements for design and copyright protection,.[971] Case law shows that "French courts have conferred full copyright protection on purely functional designs of all kinds, including the designs of plastic salad bowls, stair wells, door hinges, light sockets, luggage racks, hair brushes hospital carts and the hexagonal shape of a grease gun for lubricating automobiles."[972]

Historically, the French Act of 1793, which was enacted after the French Revolution, accorded copyright protection to artistic property; the Act of 1806 established a system of protection for industrial art separately from that of fine art. The French courts consequently faced the difficulty of the separation of art,[973] although there were distinguishing criteria such as the quantity reproduced on an industrial scale and the quality of the creators.[974] The French Act of 1902 established the protection of industrial designs under the theory of the unity of art, abandoning the distinction between works of

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968 DERCLAYE, THE COPYRIGHT/DESIGN INTERFACE, *supra* note 936, at 5; Reichman, *Design Protection in Domestic and Foreign Copyright Law*, *supra* note 60, at 1158 n.78 ("France is the only country within the European Community that affords the possibility of total cumulation between copyright law and a special regime of design protection.").

969 *See* G. Finniss, *The Theory of Unity of Art and the Protection of Designs and Models in French Law*, 46 J. PAT. OFF. SOC'Y 615 (1964) [hereinafter "Finniss, *The Theory of Unity of Art*"].

970 Reichman, *Design Protection after the Copyright Act of 1976*, *supra* note 600, at 372.

971 *See* Anne-Emmanuelle Kahn, The Copyright/Design Interface in France, in THE COPYRIGHT/DESIGN INTERFACE: PAST, PRESENT, AND FUTURE 8 (Estelle Derclaye ed., 2018) [hereinafter Emmanuelle Kahn, *The Copyright/Design Interface in France*].

972 Reichman, *Legal Hybrids between the Patent and Copyright Paradigms*, *supra* note 839, at 2489.

973 Finniss, *The Theory of Unity of Art*, at 616.

974 Emmanuelle Kahn, *The Copyright/Design Interface in France*, *supra* note 971, at 11.

fine art and works of industrial art. The law did not exclude from copyright protection artistic works later applied industrially. The Act of 1909 on the industrial designs and models affirmed cumulative protection by explicitly providing that designs and models were eligible for copyright protection even though they were also eligible for other legal protections.[975] The Act of 1957 codified case law on copyright and clearly included works of applied art as protected works, however, "originality remains a judicial requirement that the French legislator doubtlessly did not want to have crystallised by a legal definition."[976] Although the Ordinance 2001[977] implementing the Design Directive made some changes to the law on designs and models,[978] it did not change the copyrightability of industrial designs in France:[979] industrial designs are eligible for cumulative protection between design rights and copyright due to the absence of legislation regulating cumulation[980] and the court's practice in an attempt to resolve the issue.[981]

According to the theory of the unity of art, there is no distinction between the forms of artworks;[982] either fine or industrial art is subject-matter protectable under copyright law. Works of art maintain the legal rights available to them even though they are embodied in useful articles and produced industrially. Industrial design proprietors do not lose the intellectual property rights conferred upon their works of fine art even when they are altered for utilitarian purposes. A rationale behind the approach is that it is difficult, if not impossible, to make a clear distinction between artworks that are major and those that are minor in terms of artistic value, and that "all criteria to which

975 *Id*. at 13.
976 *Id*. at 17.
977 Ordinance No. 2001-670 of July 25, 2001 [hereinafter the "Ordinance 2001"].
978 Changes concern, for example, eligible designs for registration, the requirement of individual character, and an exclusion on designs solely dictated by functionality.
979 For example, the appearance of the product and the exclusion of designs contrary to public policy or morality, as required for registered designs do not apply to copyright protection in France; *see* Emmanuelle Kahn, *The Copyright/Design Interface in France*, *supra* note 971, at 20.
980 The Ordinance 2001 and IPC, art. L.513-2 similarly provide that "the right given by registration is granted without restricting the rights resulting from other legal provisions," Emmanuelle Kahn, *The Copyright/Design Interface in France*, *supra* note 971, at 20.
981 *See id.* at 9.
982 *See* Reichman, *Design Protection in Domestic and Foreign Copyright Law*, *supra* note 60, at 1182 ("The unity of art theory asserts that industrial art is art.").

one may have recourse to this effect being subject to the accusation of subjectivity or being powerless, in other ways, to solve the borderline cases."[983]

Due to the creator's personality imprinted in work, the design deserves recognition as a work of art and the increased financial value enabling design right holders to reap full rewards from their intellectual creations. Pouillet reasoned:

> The industrial design . . . serves . . . to decide the choice of the consumer . . . and in this insensible transformation from insignificance to importance, it evolves always as a creation, a creation of talent in every case, sometimes a creation of genius.[984]

The justification is supported by the Hegelian personality theory of Georg Wilhelm Friedrich Hegel, who contends that intellectual property rights protect personality development and preserve the "economic well-being of the intellectual property creator."[985] Similarly, a famous principle of industrial design established by Herbert Read is also supportive of the justification: Read emphasized personality, proposing that a factory should conform to designers' personalities.[986] Put simply, the emphasis on the personality signifies that copyright protection is justified for industrial designs since they are expressions of self, deserving such intellectual property protection.[987]

The distinct advantage of the total cumulative protection approach is that it eliminates complications of attempting to delineate the boundary of copyright. The courts do not need to solve the puzzle concerning the determination of art, the level of aesthetic merit, or the separable characteristics as under other types of cumulation. Another distinct advantage of total cumulation is that it holds on to the copyright law's general principle of nondiscrimination, which treats all art equally. Industrial art is equally eligible for copyright protection as there is no discrimination to its industrial application, which makes it different from a work of pure art. Various art forms expressed through different mediums or purposes would qualify for copyright protection.

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983 Finniss, *The Theory of Unity of Art*, *supra* note 969, at 615.

984 Kelsey M. Mott, *An Analysis of the Unity of Art Concept in European Legal Systems Part I*, 11 BULL. COPYRIGHT SOC'Y U.S.A. 242, 247 (1964) (discussing in detail the theory of unity of art) (citing "EUGÉNE POUILLET, DESSINS ET MODELES, 49 (5e. 4d. Taillefer et Claro 1911)").

985 Hughes, *The Philosophy of Intellectual Property*, *supra* note 622, at 349 n.243.

986 HERBERT READ, ART AND INDUSTRY: THE PRINCIPLES OF INDUSTRIAL DESIGN 3 (1st ed. 1935).

987 *See supra* 3.3.3.1 (discussing the personality justification in *Bleistein*).

Nevertheless, the theory of the unity of art presents the extreme view of protecting industrial designs. It neglects any negative consequences of offering copyright protection to industrially applied art since it is questionable, in some cases, whether the work still maintains the status of "art" after being altered in its manifestation from the pure art form. Consequently, there is concern over total cumulation because all industrial designs may obtain cumulative protection with copyright irrespective of the functionality. Such overprotection is prone to provide anti-competitive effects due to a monopoly of functionality in industrial designs.

The total cumulation approach appears less influential in France after the implementation of the Design Directive, which casts doubts about the scope of cumulative protection.[988] Even though some scholars believe that "individual character was only introduced to facilitate the assimilation of regimes and must be considered original,"[989] the judges can distinguish between individual character and originality more clearly in practice.[990] The French Supreme Court also interpreted that the Design Directive does "not impose total cumulation or full rights to various protection, but authorize[s] only such a cumulation when all the respective possibilities of different forms of protection are met."[991] Accordingly, total cumulation remains possible in France, but there is a tendency toward partial cumulation.[992]

4.3.2.4 Full cumulation

Full cumulation recognizes that an industrial design is eligible for dual protection by both design rights and copyright concurrently, provided the requirements for protection are satisfied under design and copyright laws. Derclaye describes the definition of full cumulation as an approach under which "both copyright and design rights can subsist if the protection requirements are fulfilled and the two laws apply in tandem whether it raises regime clashes and/or overprotection, or not."[993] Unlike

[988] Emmanuelle Kahn, *The Copyright/Design Interface in France*, *supra* note 971, at 20.
[989] *Id*. at 21.
[990] *Id*. at 25.
[991] *Id.* at 24.
[992] *Id.* at 34.
[993] DERCLAYE, THE COPYRIGHT/DESIGN INTERFACE, *supra* note 936, at 6.

non-cumulation, there is no legislation prohibiting the protection of industrial designs by more than one protection regime. Unlike partial cumulation, full cumulation is not restricted to a certain extent and does not require additional criteria for cumulative protection with copyright for industrial designs.

The difference between total cumulation and full cumulation[994] is that full cumulation does not provide automatic cumulation with copyright. Under full cumulation, an industrial design's satisfying the requirements for protection under design law does not mean that it is also protected by copyright: the industrial design must satisfy the requirements for copyright protection to be protected by copyright. In other words, dual protection by design rights and copyright is possible for the same industrial design only when the industrial design independently satisfies the requirements for protection under design and copyright laws.

These explanations of full cumulation can be further summarized as an approach that recognizes the existence of available protection under different laws: it is a starting point in a case where the legislature did nothing to regulate the interface between two intellectual property protection for the same subject-matter.[995] Accordingly, a possible disadvantage of full cumulation is that there is no mandate to explicitly state in legislation about cumulative protection between design rights and copyright. A problem may arise as to whether full cumulation is available, and it would require understanding of design and copyright laws to clarify the matter. On the other hand, an advantage of full cumulation is the strong protection under the two regimes providing a lengthy period of exclusive rights for industrial designs.

The EU recognizes cumulative protection with copyright in recital 8 of the Design Directive and recital 32 of the Design Regulation,[996] emphasizing the importance of establishing the principle of cumulation between design protection and copyright protection. Article 17 of the Design Directive and Article 96(2) of the Design Regulation[997] explicitly provide that cumulative protection between design rights and copyright must be available in EU Member States: industrial designs protected by

994 *See supra* note 937 (explaining the term "total cumulation" used in this dissertation).
995 *See* DERCLAYE, THE COPYRIGHT/DESIGN INTERFACE, *supra* note 936, at 4.
996 *See supra* note 307 and 308 (describing the recitals).
997 *See supra* note 311 and 312 (describing the provisions).

design rights are still eligible for copyright protection if they satisfy requirements for protection, including the level of originality determined by each EU Member State. The Design Directive and Design Regulation oblige EU Member States not to exclude cumulative protection with copyright for industrial designs;[998] therefore, copyright protection is available for industrial designs in addition to their protection under the sui generis design regime.

Moreover, Article 17 of the Design Directive and Article 96(2) of the Design Regulation merely mandate cumulative protection without specifying an approach that EU Member States must adopt.[999] Consequently, EU Member States may adopt 1) full cumulation, which recognizes dual design and copyright protection over the same subject-matter, or 2) partial cumulation, which allows cumulation to a certain extent by requiring some criteria for copyright in industrial designs. Countries adopting full cumulation do not preclude industrial designs from obtaining dual protection under both design and copyright laws and do not impose any discriminatory condition restricting copyright in industrial designs. Consequently, full cumulation between copyright and design rights is generally possible in EU Member States,[1000] including Austria which applies the ordinary test of copyright to designs.[1001] The UK shifted towards full cumulation after the repeal of § 52 of the CDPA 1988 in 2016.[1002] Italy adopted full cumulation from 1865 to 1925,[1003] prior to adopting partial cumulation which was significantly altered by the *Flos* decision in 2011.[1004]

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998 Design Directive, art. 17 and Design Regulation, art. 96(2); *see supra* 3.1.3 (discussing the provisions and the interface between design and copyright in the EU).

999 *Id.*

1000 Trevor Cook, *The Cumulative Protection of Designs in the European Union and the Role in such Protection of Copyright*, 18 J. INTELL. PROP. RTS. 83, 86 (2013).

1001 SUTHERSANEN, LEGAL REVIEW ON INDUSTRIAL DESIGN PROTECTION IN EUROPE, *supra* note 38, at 92.

1002 *See supra* 3.2.3.2 (providing details about full cumulation in the UK). *See also* Bently, *The Design/Copyright Conflict*, *supra* note 384, at 224 (noting that "full cumulation is not absolutely complete" due to Section 51 of the CDPA 1988, as discussed in 4.3.2.2).

1003 DERCLAYE, THE COPYRIGHT/DESIGN INTERFACE, *supra* note 936, at 269.

1004 *See supra* 3.1.3.2 (discussing the *Flos* decision and its effects in Italy).

4.3.2.5 Approaches to cumulative protection with copyright in Thailand

In Thailand, the absence of statutory provisions on the interface between design patent protection and copyright protection implicitly indicates that full cumulation is available to deal with the matter. However, such a perception may be incorrect because the absence of statutory provisions provides an opportunity for different interpretations, leading to more possibilities and legal uncertainty about cumulative protection with copyright, as demonstrated in case law.

As for the first approach of non-cumulation or demarcation, Thailand does not implement the approach in either patent or copyright law. There is no explicit statute barring cumulative protection between design patents and copyright or forcing the election of intellectual property rights. In terms of case law, there is no formal stance of the Thai Supreme Court on the issue of cumulative protection.

Despite the absence, the Thai Supreme Court cases may reflect that the court leaned toward the non-cumulation approach. In the *Tile designs* case,[1005] the Thai Supreme Court appeared to demarcate subject-matter protectable under copyright and patent laws. The plaintiff hired a Japanese company (KATAYAMA CORP) to create the molds of tile designs having special appearances and novelty that had never appeared in Thailand. The plaintiff then manufactured and sold the tiles having a trademark named "KENZAI." The tile designs were later copied and sold by a company hiring former employees of the plaintiff. The court held that the molds of tile designs did not qualify as sculptural or architectural works and therefore were not copyrighted works. The court did not further determine whether the molds of tile designs qualified as works of applied art, and the plaintiff did not present the argument. The court reasoned that they were subject-matter patentable under patent law. The plaintiff did not apply for a design patent registration and assumed that copyright protected their works. Hence, the plaintiff had no protection for their works in the end because the chance of obtaining design patent protection was already lost, and the court denied copyright protection for the works. In the case of Thailand, the non-cumulation approach would lessen the chance of the industrial design

[1005] Thai Supreme Court Decision No. 5073/2557 [hereinafter "*Tile designs*"].

proprietors to receive more effective protection due to the inadequacy of design patent protection, as previously discussed.

Furthermore, there is a Thai Supreme Court case demonstrating that the court adopted an approach similar to the US separability test to deny the copyrightability of industrial designs whose artistic features could not be separable from functional features. In the *Wheels for carts* case,[1006] the Thai Supreme Court held that copyright did not subsist in the wheels for carts having a utilitarian purpose for moving objects and a special usage in the locking system. The plaintiff claimed that he created a model as a sculptural work and wheels as a work of applied art. The court dismissed the claims and reasoned that the designs of wheels were dictated by the commonly known function of wheels and were merely modified to be aesthetically pleasing by the shape and the use of colors. These artistic features could not be separable from the utilitarian features; therefore, the wheels were not copyrightable works under copyright law.

It appears that, unlike the US copyright law, the non-cumulation or demarcation approach is not available under the Thai Copyright Act, which does not exclude any useful article from copyright protection. Works having utilitarian purposes may be copyrightable as works of applied art whose protection also does not depend on whether the artistic features can be separable from the utilitarian features.

Second, concerning partial cumulation, the level of aesthetic merit of industrial designs is not a criterion to determine whether industrial designs are copyrightable works of applied art. The Thai Copyright Act § 4 does not explicitly require aesthetic merit for the recognition of works of applied art. Therefore, the statutory provision does not endorse partial cumulation regarding assessing aesthetic merit for copyright in industrial designs. However, case law shows that the court assessed the level of aesthetic merit when determining whether the work qualified as copyrightable subject-matter in other categories of artistic works.[1007]

[1006] Thai Supreme Court Decision No.7117/2552 [hereinafter the "*Wheels for carts*" case].

[1007] *See, e.g.,* the *Snoopy dog* case, *supra* note 753. The Thai Supreme Court implicitly assessed aesthetic merit of a cartoon character "*Snoopy*" and reasoned that it was not merely an ordinary dog but distinctive to qualify as a copyrightable artistic work. The imitated design was not similar since it resembled an ordinary dog lacking distinctiveness as opposed to the plaintiff's work.

Unlike the UK partial cumulation, and in addition to the unregulated scope of copyrightable works mentioned above, the Thai copyright law broadly extends the scope of copyright infringement concerning artistic works by the statutory definition of adaptation. For artistic works, the term "adaptation" encompasses the making of a model of an original work, and any conversion of a two-dimensional work into a three-dimensional work and vice versa.[1008] The provision provides a broader and more vague notion of the action compared to § 51 of the UK CDPA 1988[1009] which clarifies that there is no copyright infringement when making or copying an article derived from a design document or model recording embodying a design that is not an artistic work or typeface. Moreover, there is no statutory provision similar to the repealed § 52 of the UK CDPA 1988, limiting the term of copyright protection by the number of products industrially manufactured. However, the Thai Copyright Act, § 22 expressly limits the term of copyright protection for works of applied art whose qualification depends on the purpose of usage that must not be purely for artistic appreciation. Hence, the statutory provision appears to implement partial cumulation for industrial designs qualifying as works of applied art by limiting the term of copyright protection to twenty-five years after the creation of the work or the first publication of the work.[1010]

Turning to the total cumulation approach, the Thai legal framework related to the interface between industrial designs and copyright appears contradictory to the French theory of the unity of art. The Thai Copyright Act explicitly separates works of applied art from other artistic works and broadly defines works of applied art. Industrial designs protected by design patents tend to fall within the definition of works of applied art under copyright law;[1011] therefore, they do not receive the same level of protection as other artistic works. The Thai Copyright Act expressly limits the level of protection for a work of applied art, providing a period of protection for twenty-five years after the creation of the work or the first publication of the work.[1012] Hence, these statutory provisions expressly

[1008] Thai Copyright Act, § 4; *see supra* 4.1.5 (describing details about the Thai copyright law).
[1009] *See supra* 4.3.2.2 (discussing partial cumulation in the UK).
[1010] *See id.* § 22 (providing that the term of copyright protection for works of applied art lasts twenty five years from the creation of the work or the first publication of the work).
[1011] *Id.* § 4(7).
[1012] *Id.* § 22; *see supra* note 765 (providing details about the copyright terms).

contradict the French theory of the unity of art as regards the non-discriminatory treatment of all artistic works protectable under copyright law.

Last but not least, the full cumulation approach appears to be available in Thailand since both copyright and patent laws do not legislate on the interface. Industrial designs may be eligible for design patent and copyright protection, provided they satisfy the requirements for protection under patent and copyright laws: new and original industrial designs applied industrially may qualify for both design patent and copyright protection.[1013] The absence of rules regulating the interface with copyright may implicitly indicate that full cumulation or dual protection between the two regimes is permissible. However, it is doubtful whether Thailand adopts the full cumulative protection approach. The Thai Copyright Act clearly limits the term of copyright protection for industrial designs qualifying as copyrightable works of applied art. Such a restriction does not fit the definition of full cumulation, which requires that there be no mechanism regulating the interface with copyright.[1014] However, case law is uncertain and inconsistent concerning the approach to cumulation with copyright, as discussed above.

4.3.3 Conclusion

Each approach to cumulative protection with copyright has its own advantages and disadvantages for industrial design protection. Adopting the non-cumulation or demarcation has a distinct advantage over other approaches in the legal certainty due to a demarcation separating subject-matter protectable under industrial and artistic property laws. At the other extreme, the total cumulative protection approach eliminates any difficulty in demarcating the boundary of copyright by offering a boundless definition of works of art encompassing works applied industrially, and therefore cumulative protection with copyright is available for all industrial designs regardless of the functionality. Partial cumulation mediates between the two extremists, attempting to regulate the

[1013] *See supra* 4.1.4 and 4.1.5 (discussing industrial design protection under the Thai patent and copyright laws).
[1014] *See* DERCLAYE, THE COPYRIGHT/DESIGN INTERFACE, *supra* note 936, at 6.

interface between the two regimes available for industrial design protection under some conditions. Last but not least, full cumulation or dual protection offers arguably the simplest way to deal with the interface. As Derclaye noted, "[a] country could have started with full cumulation, then amended its law to adopt a partial cumulation system, etc."[1015]

In the case of Thailand, the legal framework related to the interface between design patents and copyright results in the possibility of choosing from different approaches. There is no explicit statutory provision mandating or prohibiting the interface, but copyright protection for industrial designs is strictly confined by the term of protection, separating works of applied art from other artistic works under a shortened term. Moreover, case law demonstrates that there is inconsistency and obscurity concerning adopting an approach to the interface between design patents and copyright for industrial designs: non-demarcation, partial cumulation, and full cumulation appeared in different scenarios, as previously discussed. Non-cumulation is practically possible by case law, although there is no explicit demarcation under copyright and patent laws. Partial cumulation appears subtle in the court's rationale when assessing artistic features. Full cumulation or dual protection is available in default of legislation, but it is not always the case in case law. Total cumulation, as adopted in France, is practically impossible since all artistic works do not receive equal treatment regarding the level of protection under the Thai copyright law; and there is also no assimilation of protection requirements, enabling automatic cumulative protection with copyright.

There is no complete harmonization of the approaches to the interface between industrial designs and copyright in different countries, mainly due to various legal frameworks and judicial discretion related to industrial design protection. Disadvantages of copyright protection for industrial designs provoke debate about cumulative protection, as discussed in 4.3.1.2. On the other hand, copyright protection has advantages for industrial designs, as previously discussed in 4.3.1.1. These factors merit consideration in determining the proper approach to the interface between design patents and copyright for industrial design protection in Thailand. Recommendations and proposals regarding the selected approach to cumulative protection with copyright will then be presented in chapter 5.

[1015] DERCLAYE, THE COPYRIGHT/DESIGN INTERFACE, *supra* note 936, at 4.

CHAPTER 5

Summary, Conclusions, and Recommendations

5.1 Summary

The comparative analyses in the preceding chapters demonstrate that industrial design protection regimes are far from harmonious: they had historically been developed from the divergence of economic, cultural, and political contexts in each country. Nonetheless, a common objective shared in different countries is to protect industrial designs in a way that incentivizes creativity and boosts the economy due to both non-economic and economic justifications of industrial designs.[1016] To achieve such objectives, each jurisdiction structured the legal framework related to industrial designs differently: implementing the primary means of protection under either sui generis design law or patent law and adopting various approaches to cumulative protection with copyright. Given the common objectives, this dissertation attempts to ascertain whether Thailand is on the path to success, focusing on the interface between design patent protection and copyright protection for industrial designs.

The comparative analyses of industrial design protection in the EU, UK, US, and Thailand indicate that similarities in industrial design protection in different countries principally result from international agreements obliging contracting parties to implement the prescribed rules in their domestic laws.[1017] Differences in industrial design protection among countries significantly concern legal means of protection, requirements for protection, and cumulation with copyright. The EU, UK, US, and Thailand all offer registered design protection:[1018] the EU and UK have sui generis design legislation specifically governing industrial design protection,[1019] whereas the US and Thailand utilize

[1016] *See supra* 2.3 (discussing both non-economic and economic justifications).
[1017] *See supra* 2.2 (discussing the international legal framework related to industrial design protection).
[1018] *See supra* 3.1.2, 3.2.1, 3.2.2, and 4.1.3 (discussing industrial design protection in the EU, UK, US, and Thailand).
[1019] *See* the Design Regulation & the UK Registered Design Act 1949.

the patent regime to protect industrial designs by granting design patents.[1020] Only the EU and UK provide unregistered design protection under sui generis design law.[1021] Unlike Thailand, unregistered protection afforded in the US is available under trade dress law,[1022] whereas Thailand provides for unregistered protection in the form of protection against passing off under the Thai Trademark Act.[1023] Among such differences, an issue of the industrial design/copyright interface commonly exists.[1024] In those jurisdictions, copyright is a means of protection available for industrial designs; however, the copyrightability of industrial designs is unharmonious, and the approaches to cumulative protection with copyright vary across jurisdictions.

5.2 Conclusions

This dissertation concludes that there is a need to regulate the interface between design patents and copyright for more effective protection of industrial designs across the board because the design patent regime is inadequate, and the copyright regime is too lax in protecting industrial designs in Thailand. The current protection regimes afford either under-protection or overprotection and present paradoxical situations of industrial design protection in Thailand, as discussed in chapter 4.

The Thai design patent regime does not efficiently protect industrial designs for many reasons,[1025] such as the obscure statutory definition, the unavailable grace period, the absence of the explicit functionality exclusion, and the cumbersome procedures that impede the protection of industrial designs, particularly the short-lived ones. In Thailand, functional designs may have more likelihood of gaining copyright protection than design patent protection; and this occurs without a proper boundary. The absence of a statutory provision on the functionality exclusion under patent law

[1020] *See* the US Patent Act (35 U.S.C. §§ 171-173) & the Thai Patent Act, §§ 56-65; *see also supra* 3.3.2 and 4.1 (discussing design patent protection in the US and Thailand).
[1021] *See* the Design Regulation and the UK CDPA 1988.
[1022] *See* Lanham Act, § 43(a), 15 U.S.C. § 1125(a) (2006).
[1023] *See* Thai Trademark Act. § 46; *see also supra* 4.1.3 (providing details about the protection).
[1024] *See supra* 3.1.3, 3.2.3, 3.3.3, and 4.2 (discussing the interface in EU, UK, US, and Thailand).
[1025] *See supra* 4.2.3 (discussing the adequacy of design patent protection in Thailand); *see also* 4.2.2 (presenting the statistical analysis on design patents from the enactment of the Thai Patent Act B.E. 2522 (1979)).

leads to peculiar situations.[1026] The first scenario is where designs with functionality are entirely excluded regardless of the ornamental features not solely dictated by the functional aspects. Another scenario occurs when industrial designs having functionality dictating the ornamental features may still be subject-matter eligible for design patent protection. Exacerbating the situation are the judicial decisions that confusingly applied rationales precluding industrial designs from design patent protection due to the absence of explicit functionality exclusion.

The Thai copyright regime lacks a proper boundary for the copyrightability of industrial designs qualifying as works of applied art.[1027] Under the Thai Copyright Act, industrial designs may be eligible for copyright protection as works of applied art; however, there are chiefly two problems arising from the statutory definition of "works of applied art" and their copyrightability. First, subject-matter protectable as works of applied art is too narrow for some industrial designs because it requires that there must be a combination of an artistic work, as listed in the Act.[1028] The condition thus denies copyright protection to industrial designs that do not have any of the listed artistic work incorporated into them. Second, there is no restriction on the eligibility of useful articles for copyright protection. The statutory definition of works of applied art encompasses "any other use apart from an appreciation in the value of the work such as for a practical use of the work, for decorating materials or instruments, or for commercial use."[1029] Therefore, the scope of subject-matter eligible under the Thai Copyright Act is much broader than that of other countries. For example, the US copyright law limits copyright protection to only PGS works that satisfy the statutory doctrine of useful articles and the separability test.[1030] The UK CDPA 1988 affords unregistered design right only to three-dimensional designs.[1031]

Consequently, there can be paradoxical situations, for instance, where: 1) a functional design is protected by copyright for twenty-five years, but a design patent protects a non-functional one for

[1026] *See supra* 4.2.1 (discussing legal situations related to the interface between design patents and copyright for industrial design protection).
[1027] *See supra* 4.1.5 (discussing the protection of industrial designs by copyright in Thailand); *see also supra* 4.3.1.2 (discussing disadvantages of copyright protection for industrial designs in Thailand).
[1028] Thai Copyright Act, § 4; *see supra* 4.2.1.1(i) (discussing copyrightable subject-matter in Thailand).
[1029] Thai Copyright Act, § 4(7).
[1030] *See supra* 3.3.3 (discussing the doctrine of useful articles and the separability test).
[1031] *See supra* 3.2.1.4(iv) (providing details about the UK CDPA 1988).

ten years, and 2) a functional design is protectable under both copyright and design patent laws. Such paradoxical situations undermine justifications grounded differently in each intellectual property regime since the statutory provisions under the Thai Patent Act and the Thai Copyright Act obscure the boundaries between subject-matter eligible for design patent and copyright protection, leading to overlapping protection between the two protection regimes.

In determining whether Thailand should permit cumulative protection between design patents and copyright for industrial designs, the legislature and policymakers should take into consideration important factors such as the effects of overlapping protection, the inadequacy of design patent protection, and the advantages and disadvantages of copyright protection for industrial design protection in Thailand.[1032] The exploitation of intangible assets must have a limit that respects the origin of establishing intellectual property systems aimed to overcome the problem of public goods concerning intangible resources. A temporary reward granting exclusive rights to creators should not excessively expand to cross the borderline, safeguarding free and effective competition. There will be no balance of interests if the state touts the public interests of rewarding industrial designs for a too prolonged duration under copyright law. The legislature should impose a limit on industrial designs undeserving of the lengthy-term of the exclusivity under copyright law and only allow non-functional industrial designs to obtain the monopoly rights under patent law. Intellectual property protection should not aspire to award monopoly rights exclusively without the balance of rights. When considering the anticompetitive effects and the public interests, the protection afforded for industrial designs should not be unrestrained and expansive to cover all industrial designs. As Lemley contended, "free competition is the norm," and "[i]ntellectual property rights are an exception to that norm, and they are granted only when and only to the extent that they are necessary to encourage invention."[1033]

Conversely, the public interest is not always best served by free competition; it is also doubtful whether either copyright or design patent law "serve[s] the public interest for which industrial design protection, it is said, is primarily provided."[1034] As examined in 2.3, there are economic and non-

[1032] *See supra* 2.4.3, 4.2.3, and 4.3.1 (discussing these issues).
[1033] Lemley, *Property, Intellectual Property, and Free Riding*, *supra* note 135, at 1031.
[1034] C. R. Weston, *The Legal Protection of Industrial Designs*, 10 U.W. AUSTL. L. REV. 65, 77 (1971).

economic justifications for industrial design protection playing a significant role in the advancement of the creative economy in Thailand. Promoting creative activities is an important mission that the national legislature should aim at while maintaining the right balance of social and economic progress. Thailand should realize the significance of balancing the rights to promote cultural, social, and economic developments alongside intellectual property protection, as discussed in 2.3.1 and 2.3.2.[1035] Without adequate legal protection, adverse effects are apparent: industrial designs may be pirated and compete in the same market without investing any intellectual labor. Intellectual property protection helps stimulate innovative designs and recognize the designers' rights alongside the public interest. The skill and labor dedicated to creating an industrial design are worth receiving the copyright exclusivity and the patent monopoly. Industrial design proprietors thus deserve to be rewarded for their intellectual efforts no less than artists creating purely artistic works.[1036]

The discussions and analyses in the previous chapters indicate that a correlation exists between the interface and the effectiveness of industrial design protection in Thailand. This dissertation contends that Thailand should improve industrial design protection by regulating the interface between design patents and copyright: focusing on solving problems as reflected in legal and practical situations and the inadequacy of the design patent regime, as discussed in 4.2. In this regard, delineating between subject-matter eligible for design patent and copyright protection and regulating the proper scope of both protections for industrial designs will help strike a balance between the interests of the industrial design proprietors and those of the public. Furthermore, a workable approach in dealing with the interface between design patents and copyright for industrial design protection in Thailand is to permit cumulative protection between both regimes by unequivocally recognizing cumulation and regulating the scope of cumulation in legislation. The permissible cumulative protection between both design patents and copyright will provide legal certainty and contribute greatly to adequate protection of industrial designs without the need to restrict them to a particular protection regime. Design patents remain to afford protection upon registration, serving as the

[1035] WIPO, WIPO INTELLECTUAL PROPERTY HANDBOOK (2d ed. 2004).
[1036] *See supra* 4.3.1.1 (discussing advantages of copyright protection for industrial designs in Thailand).

registered design protection, while copyright serves as a means of unregistered protection for industrial designs in Thailand.[1037]

The primary purpose of this research is to improve industrial design protection in Thailand by orienting discussions around the interface between design patents and copyright of works of applied art. Accordingly, this dissertation presents recommendations and proposals that conform with the international legal frameworks as examined in 2.2. First, the proposals maintain the obligation to protect industrial designs as industrial property recognized in the Paris Convention.[1038] Second, the proposals do not contravene with the Berne Convention as to the obligation to ensure the protection of industrial designs either by special protection or copyright protection as artistic works.[1039] Third, the proposals comply with the minimum standards, for instance, as regards the requirements for protection and the period of protection,[1040] as well as ensuring the objective enshrined in the TRIPS Agreement, which sets forth that intellectual property protection should maintain a balance of rights.[1041]

5.3 Recommendations: Toward Improving Industrial Design Protection in Thailand

In Thailand, there is no statutory guidance concerning cumulative protection between design patents and copyright. None of the relevant legislation enunciates the interface between design patent protection and copyright protection; therefore, industrial designs have long been afflicted by regulatory disabilities. By enhancing regulatory structures, industrial designs will encounter fewer difficulties in acquiring protection under intellectual property laws. Judge Learned Hand made an

[1037] A difference from the unregistered design protection regime provided in the EU or UK is that the Thai unregistered protection provides a longer period of protection than that of unregistered design protection in the EU and UK. The unregistered Community design is valid for three years, while the UK unregistered design is valid for up to fifteen years.
[1038] *See* Paris Convention, art. 5*quinquies*.
[1039] *See* Berne Convention, art. 2(7).
[1040] *Id.* art. 7(4).
[1041] TRIPS Agreement, art. 7 (stating that "[t]he protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.").

interesting statement about the delineation between copyright and patents that "nobody has ever been able to fix that boundary, and nobody ever can."[1042] Such a statement may be too modest. Instead of fixing the boundary, this dissertation contends that it is worth the effort to regulate protectable subject-matter within the boundaries of intellectual property by clearly delineating subject-matter eligible for design patent and copyright protection. The boundary line between design patent protection and copyright protection should not preclude cumulative protection between the two regimes.

The recommendations proposed in this dissertation will be presented in three parts. First, this dissertation proposes the establishment of an explicit statutory provision on cumulative protection: a hybrid approach to the scope of cumulation. Second, it presents proposals for amendment to the Thai Copyright Act, explicitly denoting the status of copyrightable industrial designs. Finally, the proposed amendments to the Thai Patent Act will be provided for clearer delineation and adequate protection of industrial designs. The interface between design patent rights and copyright can be managed more effectively through the statutory schemes, as recommended here.

5.3.1 Proposals for Statutory Provisions on Cumulative Protection: A Hybrid Approach to the Scope of Cumulation

First and foremost, this dissertation recommends that cumulation between the protection of design patents and copyright of works of applied art should be permissible with some qualifications in Thailand. Legislation should expressly stipulate that cumulative protection between design patents and copyright of works of applied art is permissible. Second, this dissertation proposes that the scope of cumulation based on a hybrid approach between full cumulation and partial cumulation should be implemented in Thailand. As Professor Estelle Derclaye expressed her modest hope about the interface between design and copyright that the issue is not necessarily perceived "as utopian as it seems at first

[1042] *Quoted in* Alan Fu, *Copyright Serverability: The Hurdle between 3D-Printing and Mass Crowdsourced Innovation*, 15 DUKE L. & TECH. REV. 84, 86 (2017); Jerome H. Reichman, *Past and Current Trends in the Evolution of Design Protection Law – A Comment*, 4 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 387 (1993).

sight."[1043] The interface is possible to manage within the jurisdiction by adopting a holistic approach, taking into consideration both copyright and design patent laws.[1044] This section first provides conclusions on the rationale for not recommending some approaches to dealing with the interface between the protection of design patents and copyright of works of applied art in the case of Thailand. Then, the suggested statutory scheme will be presented.

5.3.1.1 Not adopting total cumulation

A rationale against total cumulation is that the French theory of the unity of art would require Thailand to abolish the copyright of works of applied art so that there is no distinction between fine art and industrial art regarding artistic works defined in the Thai Copyright Act.[1045] Under the theory of the unity of art,[1046] industrial designs embodying artistic features are eligible for copyright protection, eschewing all differentiation between art. The requirements for protection under copyright and design patent laws must also be assimilated to allow automatic cumulation with copyright, as discussed in 4.3.2.3. These conditions will cause several problems to the protection of industrial designs in Thailand.

First, adopting total cumulation would exacerbate a problem about the period of protection when all works, fine or applied art, receive the same legal treatment: the limited term of protection for works of applied art has to be canceled. There will be no distinction between works of fine art and works of applied art, and the same period of protection applies to all works. Hence, industrial designs qualifying as works of applied art would receive copyright protection that lasts up to fifty years *post mortem auctoris* (after the creator's death),[1047] not merely twenty-five years after the creation of the work or the first publication of the work.[1048] The equal treatment for works of applied art is arguably controversial as to whether industrial designs qualifying as works of applied art deserve the same long

[1043] DERCLAYE, THE COPYRIGHT/DESIGN INTERFACE, *supra* note 936, at 452.
[1044] *Id.*
[1045] *See supra* 4.1.5 (describing the Thai Copyright Act in detail).
[1046] *See supra* 4.3.2.3 (discussing the theory of the unity of art theory).
[1047] Thai Copyright Act, § 19.
[1048] *Id.* § 22.

period of protection as works of fine art because they are utilitarian objects and, in many cases, are necessities of life. The lack of a functionality exclusion also raises doubts about applying the same legal treatment to industrial designs under the Thai copyright Act. The total cumulative protection approach leads to overprotection of industrial designs regardless of whether the artistic features are essentially dictated by functionality, thereby allowing copyright to protect industrial designs that are unworthy of being excluded too long from the public domain under the copyright regime.[1049] Such overprotection is a safe haven for the industrial design proprietors of the protected industrial designs; however, it can upset the right balance of interests because the overly granted exclusive rights may lead to the monopoly of the functional features, having adverse effects from monopoly prices that harm the interests of consumers.[1050]

Another effect of adopting the total cumulative protection approach in Thailand is that cumulative protection with copyright is automatic for industrial designs protected by design patents. Although the assimilation of requirements could be useful in minimizing judicial subjectivity regarding the threshold of originality for copyright protection, such effects would allow the DIP to wield too much power in granting design patents that also affect the protection under copyright law. Any misstep would jeopardize the interests of industrial design proprietors because they substantially rely on the authorities in charge of granting the monopoly rights. The assimilation of requirements for protection is also problematic because the requirements for design patent and copyright protection are not the same: novelty cannot equate to originality, and original industrial designs do not mean that they have novelty required to satisfy the threshold for protection. Therefore, this dissertation does not recommend that Thailand adopts total cumulation due to the reasons previously discussed.

[1049] *See supra* 4.3.2.3 (describing the results of adopting total cumulation by the French courts).
[1050] *See supra* 2.4.3 & 4.3.1.2(iv) (discussing effects of overlapping protection and the lengthy period of protection for industrial designs).

5.3.1.2 Not recommending the assessment of aesthetic merit

This dissertation further argues that adopting partial cumulation by assessing the level of aesthetic merit is not generally recommended for Thailand, although many countries, such as Germany, adopted the approach to some extent in the past.[1051] Having aesthetic merit is not a criterion for copyright protection under the Thai copyright law. The Thai Copyright Act expressly stipulates that a work qualifies as a copyrightable artistic work regardless of having artistic value.[1052] In the *Birthday train* case, Germany's Supreme Court did not apply a higher creativity standard for copyright protection of industrial designs, as previously implemented in Germany.[1053] Under the partial cumulation approach taken by Germany in the past, industrial designs were eligible for copyright protection provided they met the requirement concerning aesthetic merit of being highly creative, which is almost, if not equally, comparable to works of genuine art. Assessing the level of aesthetic merit is hard to be neutral; the subjectivity inevitably exists in judging whether a design is or is closer to art. It would be difficult, if not impossible, to arrive at a consensus that an industrial design has aesthetic merit worthy of copyright protection.[1054] Consequently, the assessment of aesthetic merit is not recommended as a means of determining the copyrightability of industrial designs in Thailand. In rare cases, the aesthetic merit assessment may help determine whether an industrial design satisfies the requirements for protection as an artistic work that is not a work of applied art. Should Thailand implement the approach, this dissertation suggests that the Thai courts do it with caution. A recommended criterion for minimizing the subjectivity may be to consider whether industrial designs receive any prestigious award recognizing their aesthetic merit professionally. The assessment of aesthetic merit will be less contested because it is evaluated by experts in the field of relevant art. Examples of globally recognized prestigious awards are *iF* Design Award (Germany),[1055] IDEA award

[1051] *See supra* 4.3.1.2(ii) & 4.3.2.2 (discussing the assessment of aesthetic merit in details).
[1052] Thai Copyright Act, § 4.
[1053] *See supra* 3.1.3.1 & 4.3.2.2 (providing details about the *Birthday Train* case).
[1054] *See supra* 4.3.1.2(ii) (discussing about the subjective assessment).
[1055] *iF Design Award,* iF World Design Guide, https://ifdesign.com/en/ (last visited Dec. 1, 2021).

(US),[1056] and Good Design Award (Japan).[1057] Nevertheless, this dissertation does not recommend implementing the assessment of aesthetic merit due to the problematic issues, as discussed in 4.3.2.2.

5.3.1.3 Not recommending the separability test: Limiting judicial reviews

Applying the separability test can be problematic due to its theoretical and practical problems. In theory, the copyrightability of useful articles is strictly controlled by the statutory rule of useful articles doctrine, which preventing functional aspects from copyright protection. To achieve the purpose, the US courts apply the separability test, but its effect further complicates the theory. It is possible to have differing views of whether an artistic feature would survive as a copyrightable artistic work when it is separated from the useful article. It may also not be sensible to protect only artistic features of works while leaving the rest unprotected. Exacerbating the problem are cases where artistic features of works cannot be separated, either physically or conceptually, from non-artistic features. In such cases, applying the separability test is prone to be an abortive attempt in dealing with the copyrightability of useful articles. Additionally, it is difficult if not possible to find a consistent approach to assess whether artistic features can be identified separately from and are capable of existing independently of the functional features of the useful article. In practice, there can be more than one approach to the separability test due to differences in works and judicial interpretation, hence legal uncertainty inevitably exists, as discussed in 3.3.3.2.

Considering that the Thai copyright law specifically protects works of applied art, applying the separability test may not be necessary for determining the copyrightability of industrial designs as works of applied art in Thailand. Unlike the US copyright law, the Thai copyright law does not protect only PGS works in useful articles and does not require that the artistic features "can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the article."[1058] There is no separation between artistic and utilitarian aspects required for protection as a criterion for

[1056] *International Design Excellence Awards*, IDSA, https://www.idsa.org/IDEA (last visited June 1, 2021).
[1057] *Good Design*, JDP, http://www.g-mark.org (last visited Dec. 1, 2021).
[1058] *See* 17 U.S.C. § 101 (2012).

being copyrightable works of applied art under the Thai copyright law.[1059] An industrial design, regardless of aesthetic merit, is eligible for copyright protection as a work of applied art, provided it embodies a copyrightable artistic work and has a utilitarian purpose other than the appreciation of the artistic work embodied in or applied to it. The listed categories of artistic works and the statutory provisions explaining each category determine the artistic features of industrial designs; however, there is no wording about the functional features.[1060] Consequently, industrial designs having a combination of copyrightable artistic works used for any utilitarian purpose are eligible for copyright protection as works of applied art even when the artistic features are inseparable from the functional features.[1061] Put simply, copyright protects the whole useful article without the need to separate artistic features from functional ones.

Due to the problems of the separability test, it is not a recommended approach in this dissertation: adopting the separability test is challenging to implement in practice since there can be various ways to interpret the separability test, and it is thus questionable whether implementing a particular approach is correct, as seen in the case of the US courts.[1062] Adopting the separability test also means that the criteria of the separability test rest with the judges who need to examine whether an industrial design has artistic features that can be separable from the functional ones and thus qualify for copyright protection. Such determination brings about conceptual and practical difficulties for countries implementing the separability test,[1063] leading to legal uncertainty caused by different judicial discretion.

[1059] *See* Thai Copyright Act § 4(7).
[1060] *See id.* § 4; *see also supra* note 26 (describing the listed artistic works).
[1061] *See supra* 4.1.5 (examining copyright protection for industrial designs in Thailand); *supra* 4.2.1.1(i) (discussing copyrightable subject-matter under the Thai copyright law); and *supra* 4.3.1.2(i) – 4.3.1.2(iii) (discussing the issues related to the copyrightability of industrial designs in Thailand).
[1062] *See supra* 3.3.3.2 (discussing the details of separability test).
[1063] *Id.*

5.3.1.4 Suggested statutory scheme for cumulative protection

This dissertation argues that deciding factors in cumulative protection should not stem entirely from judicial discretion since it brings about legal uncertainty. Amendments to both copyright and patent laws are necessary to demystify the interface between the protection of design patents and copyright of works of applied art. To put it succinctly, legislation should expressly stipulate that cumulation between design patent protection and copyright protection is permissible and under which conditions it is proscribed. This approach is similar to the Design Directive and Design Regulation, which explicitly permits cumulative protection between design and copyright regimes.[1064]

This dissertation proposes that a statutory provision should state explicitly that industrial designs are eligible for cumulative protection between design patents and copyright of works of applied art, provided they satisfy the threshold requirements as prescribed under both copyright and patent laws, except for some circumstances. Examples of the exceptions may include: (1) an industrial design obtaining a design patent after the expiry of copyright protection, and an industrial design obtaining copyright after the expiry of design patent protection,[1065] and (2) an industrial design used for products manufactured on a massive scale of more than the quantity prescribed by the Ministerial Regulations. Having a restriction on the manufacturing scale was also historically approved by the British government in the early twenty century, conferring "copyright protection on any works of applied art as long as it was not intended to be mass-produced."[1066] This dissertation suggests that the quantity should be more than fifty copies of works in general cases since the quantity would suffice to make the products commercially viable and was once implemented by the repealed § 52 of the UK CDPA 1988.[1067] Industrial designs falling into the scope of (2) shall be eligible for cumulative protection for the term not exceeding the total of twenty-five years. The above-proposed amendment

[1064] *See supra* 3.1.3.1 & 4.3.2.4 (discussing full cumulation as adopted in the EU).
[1065] An industrial design previously protected by a now-expired design patent remains protected by copyright for a period of protection starting from the date of creation or the date of first publication, which is earlier than (or simultaneous with) design patent protection. To put it succinctly, copyright lasts only for its remaining period of protection after the design patent expires.
[1066] Bently, *The Design/Copyright Conflict*, *supra* note 384, at 196.
[1067] *See id*. at 198 n.117 (noting that the fifty copies was "arbitrary figure but as reasonable as any other.").

would serve as the guiding principle of cumulative protection for the interested parties and the decision-makers.

The case of (1) does not allow *posteriori* overlap, which means that cumulative protection cannot occur after one of the related intellectual property rights has expired. In other words, cumulative protection can only co-exist where copyright and design patent rights concurrently overlap each other. The rationale is to prevent exploiting the legal loophole of misusing intellectual property rights to extend the exclusivity period,[1068] causing the imbalance between the interests of the industrial design proprietors and those of the public. A tricky situation may be where industrial design proprietors file design patent applications in the last year before the expiration of the twenty-five-year copyright term to extend intellectual property protection for the same subject-matter. In such a case, they will risk failing the novelty requirement. Therefore, the (1) exception can help dictate industrial design proprietors into the patent regime if they wish to fully protect their designs.

As for the case of (2), manufacturing a great number of products with a certain industrial design can denote its status as an object of industrial property rather than that of art. Such an industrial design should be subject to the design patent regime rather than the copyright regime, which serves best to protect artistic creations.[1069] On the other hand, industrial designs composed of any category of copyrightable artistic works for any practical use or other uses apart from the appreciation of aesthetic merit are subject to the copyright regime. In essence, the proposed amendment provides that works of applied art exploited industrially as product designs, in particular, should be subject to the design patent regime that specifically aims to safeguard products of industry. If allowed, cumulative protection, therefore, should be under the limited term to prevent overprotecting industrial designs of such nature.

The case of (2) relates to the quantity criterion which is similar to the repealed § 52 of the UK CDPA 1988.[1070] The criterion limited the term of copyright protection for artistic works exploited industrially, more than fifty copies of works to twenty-five years. The restricted twenty-five-year term

[1068] *See, e.g.*, Deepa Varadarajan, *The Uses of IP Misuse*, 68 EMORY L.J. 739 (2018).
[1069] *See supra* 4.3.1 (discussing the importance of copyright for industrial design protection in Thailand).
[1070] *See supra* 3.2.3.2 & note 526 (providing details about the repealed § 52 of the CDPA 1988).

is currently implemented for copyright protection of works of applied art in Thailand. Contrary to UK law, the proposal on the quantity restriction has an aim at demarcating between copyright protection and design patent protection. Under the Thai Copyright Act, there is no quantity criterion to restrict the term of copyright protection for works of applied art, as similarly implemented in the UK.[1071] An artistic work exploited industrially regardless of the number of copies is regarded as works of applied art, provided the purpose of using it is "for utility apart from the appreciation in the merit of the work such as for practical use of such work, decorating materials or appliances or using for commercial benefit."[1072] It should be noted that a disadvantage of this approach may be that it is difficult, if not impossible, to measure the number of copies of industrial designs in order to regulate them.

As a consequence, this dissertation suggests that the appropriate quantity should derive from public consultation with all stakeholders in relevant industry; rigidly setting out the specific number in legislation may not be effective for the protection of industrial designs, which vary from industry to industry. A ministerial regulation issued pursuant to the rule must ensure that this approach can work effectively in practice. The main rationale for recommending the quantity criterion stems from its ability to draw an objective distinction between copyright protection and design patent protection to maintain the justification underpinning each intellectual property right.[1073] Without the restriction, all functional designs may qualify as copyrightable works of applied art as long as they satisfy the requirements for copyrightability and become monopolistic, negatively affecting the business competition and consumer welfare. Regulating the scope of cumulative protection can thus help "prevent superfluous incentives and balance competing interests."[1074]

As regards the term of protection afforded by cumulation, in the case of Thailand, cumulative protection means that an industrial design is automatically protected by copyright as a work of applied art for twenty-five years after the creation of the work or the first publication of the work, if published.

[1071] *Id.*

[1072] Thai Copyright Act, § 4(7).

[1073] *See* DERCLAYE, THE COPYRIGHT/DESIGN INTERFACE, *supra* note 936, at 442 (contending that the quantity criterion is a workable approach to the design and copyright interface).

[1074] Afori, *Reconceptualizing Property in Designs*, *supra* note 129, at 1115 (arguing that "design law suffers from the general problem of intellectual property rights, which is the need to fine-tune the right's scope to prevent superfluous incentives and to balance competing interests.").

During the time, if a design patent is granted, the industrial design is also protected by a design patent for ten years from the filing date of the application. To illustrate this point, suppose that an industrial design called "A" was created (or first published) on January 1, 2000, and filed for a design patent on the same day. The "A," if eligible for cumulation, would obtain the total period of cumulative protection for twenty-five years under both design patent and copyright regimes.

Nevertheless, the term of cumulative protection is more complicated depending of the date of filing of an application for an industrial design. For example, suppose an industrial design called "B" was created (or first published) on January 1, 1980, and later filed for a design patent application on January 1, 2005 (which is in the last effective year of copyright of works of applied art). In this scenario, an industrial design can obtain protection by copyright for twenty-five years and by a design patent for ten years, a total of thirty-five years if a design patent is granted (surviving the risk of a lack of novelty) and there is no exception as (1). In contrast, if there is an exclusion from cumulation, as provided in (1) of the proposed amendment, cumulative protection of the industrial design by a design patent after the expiry of the copyright term is denied. The rationale behind the exclusion of cumulation is to preclude undue prolongation of protection since it hinders the exploitation of industrial designs in the public domain. This is due to the economic cost attached to the designs protected under intellectual property regimes. The longer the designs are not in the public domain, the harder the designers can develop products. Consumers are also at a disadvantage when they must pay the high price for product costs resulting from the protected designs.[1075]

A challenging effect of allowing cumulative protection may be a case where there is litigation. The court has to encounter a problem of choosing the law applicable to the case because the industrial design in question is eligible for cumulation under both copyright and patent protection. For instance, when there is a patented design having a composition of an artistic work protectable under copyright law. Two possible issues that may arise are 1) whether the patented design in question is also protected by copyright; and 2) whether the design in question is protected as a work of applied art or a work of

[1075] Lemley, *Property, Intellectual Property, and Free Riding*, *supra* note 135, at 1059 ("[T]he intellectual property system permits owners to raise price above marginal cost, creating deadweight losses by raising the price to consumers.").

art. This is because the two categories of works have a vastly different length of protection. For works of art, the term of protection is for the life of the creator plus fifty years *post mortem auctoris* or fifty years after publication in the case of works of an unknown author,[1076] while works of applied art are protected for twenty-five years after the creation of the work or the first publication of the work.[1077] The first issue can be handled by the legislative approach, as recommended earlier. As for the second issue, it would rarely occur since there is a clear categorization of copyrightable works under the Thai Copyright Act. Implications from the comparative analyses indicate that the criteria for determining the copyrightability of industrial designs differ across jurisdictions. The question as to whether the Thai courts should apply the separability test on such an issue is already discussed in 4.3.2.1.

Consequently, the design patent and copyright interface will be less troubling by delineating the boundary of cumulative protection between the protection of design patents and copyright of works of applied art, as recommended. Such a delineation is not discriminatory because industrial design proprietors are entitled to both regimes, provided their industrial designs satisfy the legal requirements under patent and copyright laws. Importantly, the recommendations are in line with the international agreements to which Thailand is a signatory.[1078] Under the proposed amendments, Thailand affirms the obligation to protect industrial designs as required in Article 5*quinquies* of the Paris Convention. The proposed amendments do not require an indication or mention on a product of the deposit of industrial design as a condition for industrial design protection; therefore, it does not violate Article 5D of the Paris Convention, which states that "[n]o indication or mention of the patent, of the utility model, of the registration of the trademark, or of the deposit of the industrial design, shall be required upon the goods as a condition of recognition of the right to protection."[1079] Moreover, the right of

[1076] Thai Copyright Act, § 19; *see supra* note 765 (providing details about the copyright terms).
[1077] *Id.* § 22.
[1078] *See supra* 2.2 (discussing the international agreements), 4.1.2 (describing Thailand's signatories of international agreements).
[1079] *See* Thai Patent Act, § 76 (providing that an applicant has the right to use the word "Patent Pending" or other words having the similar meaning on a product and in advertising the design while the design patent application is pending).

priority is not lost when adopting the suggested approach because there is no alteration to the right of priority, which means there is no violation of Article 4A(1) of the Paris Convention.[1080]

Furthermore, the proposed maximum period of cumulative protection does not contradict the minimum standard regarding the term of protection for works of applied art, as prescribed in Article 7(4) of the Berne Convention.[1081] The proposed exceptions also do not contravene Article 26.2 of the TRIPS Agreement in Section 4 titled "industrial design," which provides that "[m]embers may provide limited exceptions to the protection of industrial designs, provided that such exceptions do not unreasonably conflict with the normal exploitation of protected industrial designs and do not unreasonably prejudice the legitimate interests of the owner of the protected design, taking account of the legitimate interests of third parties."[1082] The provision allows Member countries to establish an exclusion within the boundary of the three-step test. Under the proposal, the industrial design proprietors have the same privilege to exploit their industrial designs under the regime deemed appropriate for subject-matter since the proposed amendments merely regulate the scope in which they can exercise their rights. The proposed statutory rules regulate the interface between the protection of design patents and copyright of works of applied art from beginning to end, especially when a dispute arises. In the case where an industrial design is eligible for cumulative protection, the design rights holders can initiate legal proceedings on the basis of either design patent rights or copyright, depending on what right is infringed so as to fully safeguard the interests of the industrial design proprietors.

[1080] *See id.* § 60*bis.*

[1081] Berne Convention, art. 7(4) ("It shall be a matter for legislation in the countries of the Union to determine the term of protection of … works of applied art in so far as they are protected as artistic works; however, this term shall last at least until the end of a period of twenty-five years from the making of such a work.").

[1082] TRIPS Agreement, art. 26.2 ("Members may provide limited exceptions to the protection of industrial designs, provided that such exceptions do not unreasonably conflict with the normal exploitation of protected industrial designs and do not unreasonably prejudice the legitimate interests of the owner of the protected design, taking account of the legitimate interests of third parties.").

5.3.2 Proposals for Amendments to the Thai Copyright Act: Explicitly Denoting the Status of Copyrightable Industrial Designs as Works of Applied Art

As analyzed in 4.2.1, this dissertation recommends that there should be critical amendments to the existing laws regarding design patentable and copyrightable subject-matter. The amendments should aim to prevent overlaps that occur from the overly broad and obscure wording in the statutory definitions of subject-matter protectable under patent and copyright laws. The dissertation contends that the statutory reform of subject-matter eligibility is necessary, particularly for unprotectable subject-matter under the functionality exclusion. The more precise scope of design patentable and copyrightable subject-matter will help disentangle the status of industrial designs as works of applied art at the outset; it will also minimize the subjectivity of judgments about subject-matter eligibility in the latter stage when an issue arises. In other words, this dissertation proposes that there should be an amendment to the Thai Copyright Act to clarify the term "works of applied art" since the existing definition provides an overly broad and vague notion of works that are eligible for protection.[1083] Such an overlap brings about a negative consequence of overprotection because the copyrightable subject-matter as works of applied art encompasses broader categories than the subject-matter of design patent protection, protecting some undeserving kinds of subject-matter under copyright law for the long term of protection. The statutory definition of works of applied art, thus, needs amendment for both clarity and substantive reasons.

This dissertation proposes an amendment to the statutory definition of a copyrightable work of applied art to mean a work which embodies a copyrightable artistic work, such as the work listed in §§ 4 (1) to (6), for utilitarian purposes irrespective of commercial benefits; and that the artistic aspects must not be solely or essentially dictated by the technical or functional aspects and can be appreciated by its aesthetic creativity.[1084] Clarifying the definition of works of applied art plays a significant role in delineating the boundary line between design patent protection and copyright

[1083] *See supra* 4.1.5 & 4.2.1.1 (discussing about the statutory definition of works of applied art and relevant overlaps).

[1084] A proposed statutory provision by the author of this dissertation for the definition of "works of applied art."

protection. The wording clearly broadens the scope of artistic works incorporated in the copyrightable works of applied art to not only the ones listed in the Thai Copyright Act. The proposed provision will solve a problematic situation where works that do not incorporate the listed artistic works are excluded from copyright protection,[1085] offering more protection to those works, including non-traditional copyrightable subject-matter, which may appear more often in the era of new technology. Moreover, the wording "for utilitarian purposes irrespective of commercial benefits" is proposed to replace "for utility apart from the appreciation in the merit of the work such as for practical use of such work, decorating materials or appliances or using for commercial benefit."[1086] The proposed wording aims to simplify the definition and specify that the work does not need to be used for a commercial benefit. The proposed term "utilitarian purposes" also means that works of applied art are "useful articles," as prescribed in the US Copyright Act,[1087] ensuring that copyright is available for industrial designs which are inherently made for a utilitarian purpose, provided they meet requirements for protection.

To prevent overprotection of mundane objects and possible monopoly of functionality in industrial designs, the proposed provision introduces a criterion further elaborating the wording in the statutory definition about what kind of useful articles are copyrightable subject-matter as works of applied art. An industrial design will not qualify as copyrightable works of applied art if it embodies artistic features which are solely or essentially dictated by the technical or functional features. The proposed criterion is similar to the EU Design Regulation, the UK Registered Design Act 1949, and the useful articles doctrine under the US copyright law.[1088] Furthermore, the term "aesthetic creativity" proposed in the definition of works of applied art will shed light on subject-matter worthy of copyright protection. The proposed "works of applied art" may have a relatively similar connotation to works of artistic craftsmanship adopted in several countries such as the UK. By strengthening the boundary of works of applied art, there will be the right balance of protection because copyright only subsists in industrial designs that satisfy the eligibility standards of copyrightable subject-matter, as proposed.

[1085] *See* Sirisakbanjong, *supra* note 786 (describing the problematic case).
[1086] Thai Copyright Act § 4(7).
[1087] 17 U. S. C. § 101 defined a "useful article" as meaning "an article having an intrinsic utilitarian function that is not merely to portray the appearance of the article or to convey information."
[1088] The Design Regulation, art. 8(1), the UK Registered Design Act 1949, § 1C(1), and 17 U.S.C. § 101.

In summary, a fundamental problem related to the interface between the protection of design patents and copyright of works of applied art lies with the ill-regulated protectable subject-matter and the seemingly redundant protection regimes for industrial designs in Thailand. More puzzlements result from the different levels of protection offered by each regime. On the one hand, industrial designs are protected for ten years from the filing date under patent law;[1089] on the other hand, industrial designs as works of applied art are protected for twenty-five years from the creation of the work or the first publication of the work under copyright law.[1090] The discrepancy in the protection terms makes copyright protection more desirable, but it leads to overprotection for two possible reasons. First, the broad definition of works of applied art covers industrial designs irrespective of any aesthetic merit and functional features. Second, the threshold of originality for works of applied art tends to be questionably low. As a result, broad categories of industrial designs may be eligible for copyright protection even though mundane articles do not have artistic aspects that resemble artistic works protectable under copyright law. The proposed statutory definition plays a vital role in mitigating the effects of overprotection for industrial designs. Cumulative protection should be permissible under restrictions as previously recommended to incentivize artistic creations and maintain the appropriate balance of rights. Regulating cumulative protection by circumscribing copyright protection for industrial designs according to the recommendations will strike a balance between the interests of industrial design proprietors and those of the public. Proposed amendments to copyright law are necessary to regulate cumulative protection so that one regime does not unjustifiably override the other.

5.3.3 Proposals for Amendments to the Thai Patent Act towards Clearer Delineation and Adequate Protection of Industrial Designs

This dissertation concludes that the current design patent regime is inadequate for protecting industrial designs, specifically to reward creative endeavors and further stimulate economic growth,

[1089] Thai Patent Act, § 62.
[1090] Thai Copyright Act, § 22.

as discussed in 4.2.1, 4.2.2, and 4.2.3. Therefore, amendments to the Thai Patent Act contribute significantly to realizing the potential benefits,[1091] thereby enhancing the protection regime, as proposed in this section.

5.3.3.1 Delineating design patentable subject-matter

In addition to clarifying the definition of subject-matter eligible as works of applied art, this dissertation argues that there must be an amendment to the definition of designs eligible for design patent protection to cover broader categories of industrial designs. The explicit definition will then steer the proprietors of industrial designs towards applying for design patents, especially in cases where industrial designs are outright not copyrightable. Amending the Patent Act in respect of the subject-matter eligibility is a crucial factor in achieving the objectives. As discussed in 4.2.1.1, the statutory definition raises several questions about subject-matter eligibility.[1092] Regarding the meaning of a "special appearance," the legal provision does not specify what the special appearance of an industrial design is. The court's interpretation of the wording to mean creativity also conveys a dubious message that creativity is implicitly a design patentability requirement.

This dissertation suggests that the ambiguity can be resolved by changing the term "special appearance" to "individual character," modeled after the EU design law. A proposed amendment to § 3 of the Thai Patent Act should provide that the term "design" as design patentable subject-matter means the visual appearance of the whole or a part of an object, such as a product of industry or handicraft, which [1] results from ornamental features whether in two- or three-dimensional forms, such as lines, colors, contours, texture, materials, shapes or configurations; and which [2] gives an individual character to the object. By changing the term to "individual character," the statutory definition of protectable designs will be more harmonized with the European definition of protectable designs. In assessing the individual character of an industrial design, Thailand can implement rules

[1091] *See supra* 2.3 (discussing the economic and non-economic justifications of industrial designs).
[1092] Thai Patent Act, § 3 (""design" means any configuration of a product or composition of lines or colors that gives a special appearance to the product and can serve as a pattern for a product of industry or handicraft.").

similar to the European design law so that the assessment standards are well-regulated and recognized internationally. The proposed term "individual character" also clarifies that a design patent is granted to the artistic features which offer the overall impression of being different from known designs. It should be noted that the proposed amendment maintains the same protection requirements, which are the novelty and industrial application for design patent registration in Thailand. The proposed term "individual character" later serves as a criterion for determining design patent infringement. Hence, it will not create an extra hurdle to the design patent registration. Importantly, the proposed statutory definition is in line with the definitions of protectable "design" in several jurisdictions.[1093] The proposed statutory definition broadens the scope of eligible subject-matter for design patent protection since the definition covers not only lines and colors but also contours, textures, and materials. It also clearly covers partial designs, and the term "object" [1094] encompasses a wider range of objects than the current term "product" to include new types of industrial designs such as graphical user interfaces (GUIs), which is a favorable response to new technologies. The broader definition, as proposed, is necessary for the Thai design patent regime to bestow advantages on industrial designs, thereby incentivizing innovations in the ever-changing world of technology.

5.3.3.2 Explicitly codifying a functionality exclusion

This dissertation argues that a functionality exclusion can be a crucial factor in determining the improved demarcation line between subject-matter copyrightable as works of applied art and those protectable as patented designs. Without an explicit functionality exclusion, functional designs may be protected under the Thai Patent Act irrespective of being solely or essentially dictated by technical functions.[1095] The same functional design may also qualify as copyrightable works of applied art and be protected under copyright law since the Thai Copyright Act does not restrict the protection of works of applied art in any way, as regulated in the US copyright law. Moreover, the Thai Patent Act does

[1093] *See supra* 2.1.2 (describing details about the legal definitions of industrial designs).
[1094] The term "object," translated from "*Watthu*" in Thai, has a broad meaning including products, articles, items and other things.
[1095] *See supra* 4.2.2 (analyzing the statistics about the design patent registration in Thailand).

not explicitly preclude the protection of functional designs: there is only one provision excluding industrial designs that are contrary to public order or morality.[1096] The absence of a functionality exclusion causes legal uncertainty since it hinges upon judicial interpretation to resolve the issue. Case law shows that the Thai courts generally denied design patent protection to functional designs, irrespective of being solely dictated by functionality or not. The court appeared to err in reasoning that the functionality destroyed the special appearance, as defined in the statutory definition of "design," and also destroyed the novelty of the design, as required for design patent protection.[1097] As analyzed in 4.2.2, however, the statistics of design patents implicitly indicate that the absence of the functionality exclusion was a contributing factor affecting the number of granted design patent applications.

To resolve these aforementioned issues, this dissertation proposes that Thailand should amend the Thai Patent Act by explicitly adding the functionality exclusion modeled after the EU Design Regulation. Specifically, Article 8(1) of the Community Design Regulation states that "[a] Community design shall not subsist in features of appearance of a product which are solely dictated by its technical function."[1098] As in the US, design patent protection should exclusively protect the ornamental elements of industrial designs, either in the two- or three-dimensional forms, whereas industrial designs as useful articles are copyrightable under some restricted conditions.[1099] Thailand should adopt similar concepts to balance the scope of protection under the Thai Patent Act. Hence, a proposed amendment sets forth that design patent rights do not subsist in a design, as a whole or in part, that is solely or essentially derived from its technical function.[1100]

The proposed functionality exclusion will fill the legal lacunae and align with the EU standards regarding the scope of protection for functional designs. It will also not hinder the design patent registration process because there is no examination of the non-functionality requirement for

[1096] *See supra* 4.1.4 (discussing the protection of industrial designs under Thai patent law).
[1097] *See supra* 4.2.1.2 (discussing the relevant case law).
[1098] *See supra* 3.1.2 (describing further on the EU functionality exclusion); the UK Registered Design Act 1949, § 1C(1) also provides the same exclusion, *see also supra* 3.2.1.4(i).
[1099] *See supra* 3.3.3.1 (discussing the copyrightability of useful articles).
[1100] A proposed provision by the author of this dissertation on the functionality exclusion under the Thai patent law.

granting a design patent. The proposed functionality exclusion serves as a ground for invalidity; consequently, the lack of the requirement would invalidate a registration. The Thai design patent office will not examine, before registration, whether an industrial design is solely or essentially dictated by its technical function. Rather, the functionality exclusion will be a crucial factor in assessing the validity of the patented industrial design and whether there is an infringement of a design patent since the protection only subsists in ornamental features of the industrial design in question. Importantly, the proposed amendment does not contravene Article 25.1 of the TRIPS Agreement, which provides that Member countries may exclude from protection "designs dictated essentially by technical or functional considerations."[1101] In other words, the TRIPS' flexible functionality exclusion allows Thailand to establish a functionality exclusion for the protection of industrial designs, as proposed here.

5.3.3.3 Enhancing the design patent registration process

As analyzed in 4.2.2, the statistics of design patent applications and registrations demonstrate that the Thai design patent regime appears inadequate due to its shortcomings.[1102] The annual design patent allowance rate, shown in Figure 4.4, fluctuated for the past forty years and was distinctively lower than the US allowance rate.[1103] The 20-year average design patent pendency, shown in Figure 4.5, also indicates the unsatisfactory time-consuming process of design patent registration in Thailand.[1104] Since the enactment of the Thai Patent Act in 1979, the total number of applications and granted patents, shown in Figure 4.3, has been on the rise, emphasizing the significance of design patent protection in Thailand.

To enhance the current design patent regime, Thailand should implement a presumption of validity and curtail design patent examination procedures, making it similar to the EU model, which does not examine whether an industrial design meets the requirements of novelty and individual

[1101] TRIPS Agreement, art. 25.1.
[1102] *See supra* 4.2.3 (discussing the adequacy of the Thai design patent regime).
[1103] *See supra* note 834 (providing details about the US allowance rate).
[1104] *See supra* 4.2.3.2(iii) (discussing the substantive examination).

character prior to registration. After an application is filed to the design patent office, a preliminary examination will be conducted to check whether the application satisfies the formalities in respect of applications. During the process, the design patent office will merely examine whether an industrial design qualifies as subject-matter eligible for design patent protection.

Succinctly put, an industrial design filed for a design patent must constitute ornamental aspects perceivable through the human's eyes either be two- or three-dimensional and must not be contrary to public order or morality. In this way, the design patent regime will be more enticing by abandoning the substantive examination before granting a design patent registration and by concentrating on the invalidation procedures afterward; any interested parties can still challenge the validity of design patents during the timeframe prescribed by the law. Given the statutory presumption, industrial designs are afforded protection soon after the application satisfies the formalities and the preliminary examination.

The proposed sui generis process will considerably benefit the proprietors of industrial designs who wish to obtain a design patent promptly. Hence, the proposed amendment will facilitate and accelerate the design patent registration process so that the proprietors of industrial designs receive an assurance that their creations are protected without delay. Moreover, this dissertation recommends that Thailand join the Hague Agreement, following industrialized countries such as Japan and the US, which joined it in 2015.[1105] The international filing system will streamline the process for obtaining registration in multiple countries and help boost the demand for design patent protection in Thailand. As obliged by the Hague Agreement, the term of protection will have to be extended from ten years to at least fifteen years, making the regime more appealing to industrial design proprietors. The extended period will contribute substantially to the success of the design patent regime for industrial design protection when combined with the changes recommended in this dissertation.

[1105] *See supra* note 93 (providing the specific date on the participation of Japan and the US).

5.4 Concluding Remarks

The interface between design patents and copyright for industrial design protection, if left unregulated, can lead to under-protection in cases where industrial designs are solely subject to design patent protection and overprotection in cases where copyright protection is always a possible alternative for industrial designs. The oscillations between under-protection and overprotection of industrial designs will be a recurring nightmare for those affected unless the relevant legal frameworks are more well-structured. The flexibilities in the international agreements hint at the difficulty of harmonizing industrial design protection and underline the need for a customized protection regime. The above recommendations and proposals are congruent with Thailand's legal and practical situations. This dissertation ascertains that the balanced approaches to the interface between design patent protection and copyright protection are to concentrate on the boundaries of each industrial design protection regime: by strictly heightening the boundary of subject-matter copyrightable as works of applied art, widening the area in which design patentable subject-matter encompasses, and thereby delineating the boundaries of the protectable subject-matter under both patent and copyright laws.

In attempting to serve the interests of the industrial design proprietors, a hybrid approach to permitting cumulative protection is recommended to incentivize innovative designs and facilitate economic and cultural developments while maintaining a balance of competing interests. In this regard, both design patent and copyright protection regimes complement each other and concurrently serve to protect industrial designs. Concomitantly, certain restrictions should be imposed on cumulation when considering justifications underpinning each intellectual property protection. Of equal importance is to improve the current design patent regime as the primary means of industrial design protection that becomes more effective for industrial design proprietors and businesses in broader coverage of industries. The objective can be achieved chiefly through clarifying the protectable subject-matter, simplifying design patent obtaining procedures, extending the term of

protection to at least fifteen years as required by the Hague Agreement, and affirming the benefit entitlement to cumulative protection under both patent and copyright laws.

Proposals presented here may not be a panacea for all the interface between other intellectual property rights in every jurisdiction since the proposals attempt to craft legislative schemes suitable for improving industrial design protection in Thailand. Tailoring effective means for protecting industrial designs, as proposed, is fundamental to reforming an industrial design protection regime aimed to achieve for this dissertation. Resolving the interface between design patents and copyright for industrial design protection is a challenging task that requires intense scrutiny, particularly in balancing the interests of the industrial design proprietors and those of the public. Properly regulating the scope of cumulation and the role of each industrial design protection regime is of paramount importance to achieve the objectives. Recommendations and proposals presented above serve as a basis for dealing with the interface, which inherently begs the question about the more suitable intellectual property regime for industrial design protection and the existence of cumulative intellectual property rights. Comparative studies on the legal frameworks substantiate that one universally accepted answer to the problem has not yet been established in international and domestic spheres. Nevertheless, a workable approach can at least be ascertainable in each country, as this dissertation modestly attempts here for the case of Thailand.

Appendix A

Statistics

Table A.1 Total numbers of design patent, invention patent, and overall patent applications in Thailand (Source: DIP, Thailand)

Year	No. of design patent applications			No. of invention patent applications			No. of overall patent applications		
	Thai	Foreigner	Total	Thai	Foreigner	Total	Thai	Foreigner	Total
2019	3,541	1,752	5,293	821	7,351	8,172	4,362	9,103	13,465
2018	4,044	1,425	5,469	904	7,245	8,149	4,948	8,670	13,618
2017	3,698	1,424	5,122	979	6,886	7,865	4,677	8,310	12,987
2016	3,566	1,357	4,923	1,098	6,722	7,820	4,664	8,079	12,743
2015	3,162	1,299	4,461	1,029	7,138	8,167	4,191	8,437	12,628
2014	2,806	1,271	4,077	983	6,947	7,930	3,789	8,218	12,007
2013	2,527	1,275	3,802	929	6,478	7,407	3,456	7,753	11,209
2012	2,292	1,189	3,481	1068	5,678	6,746	3,360	6,867	10,227
2011	2,513	1,276	3,789	893	3,013	3,906	3,406	4,289	7,695
2010	2,648	966	3,614	922	1,066	1,988	3,570	2,032	5,602
2009	3,171	702	3,873	1062	4,820	5,882	4,233	5,522	9,755
2008	2,735	1,085	3,820	951	5,807	6,758	3,686	6,892	10,578
2007	2,533	988	3,521	945	5,873	6,818	3,478	6,861	10,339
2006	2,524	1,036	3,560	1,040	5,221	6,261	3,564	6,257	9,821
2005	3,367	1,178	4,545	891	5,449	6,340	4,258	6,627	10,885
2004	2,609	960	3,569	819	4,554	5,373	3,428	5,514	8,942
2003	2,624	1,007	3,631	802	4,141	4,943	3,426	5,148	8,574
2002	2,415	822	3,237	615	3,874	4,489	3,030	4,696	7,726
2001	1,970	692	2,662	534	4,798	5,332	2,504	5,490	7,994
2000	1,939	758	2,697	561	4,488	5,049	2,500	5,246	7,746
1999	1,148	573	1,721	738	4,438	5,176	1,886	5,011	6,897
1998	789	549	1,338	479	4,592	5,071	1,268	5,141	6,409
1997	523	701	1,224	246	5,148	5,394	769	5,849	6,618
1996	419	541	960	203	4,355	4,558	622	4,896	5,518
1995	486	418	904	145	3,387	3,532	631	3,805	4,436
1994	484	478	962	150	2,816	2,966	634	3,294	3,928
1993	415	467	882	110	2,353	2,463	525	2,820	3,345
1992	241	419	660	67	1,906	1,973	308	2,325	2,633
1991	263	336	599	80	1,907	1,987	343	2,243	2,586
1990	193	422	615	73	1,867	1,940	266	2,289	2,555
1989	172	495	667	43	1,381	1,424	215	1,876	2,091
1988	111	318	429	78	1,041	1,119	189	1,359	1,548
1987	193	190	383	68	814	882	261	1,004	1,265
1986	182	159	341	60	634	694	242	793	1,035
1985	131	151	282	55	652	707	186	803	989
1984	182	129	311	49	619	668	231	748	979
1983	152	120	272	48	512	560	200	632	832
1982	87	100	187	40	331	371	127	431	558
1981	24	65	89	26	306	332	50	371	421
1980	9	52	61	13	202	215	22	254	276
1979	25	0	25	7	15	22	32	15	47
Total	62,913	29,145	92,058	20,624	146,825	167,449	83,537	175,970	259,507

Table A.2 Total numbers of granted design patents, invention patents, and overall granted patents in Thailand (Source: DIP, Thailand)

Year	No. of granted design patents			No. of granted invention patents			No. of overall granted patents		
	Thai	**Foreigner**	**Total**	**Thai**	**Foreigner**	**Total**	**Thai**	**Foreigner**	**Total**
2019	1,841	1,289	3,130	172	2,949	3,121	2,013	4,238	6,251
2018	2,250	1,377	3,627	128	3,690	3,818	2,378	5,067	7,445
2017	2,092	1,469	3,561	88	2,992	3,080	2,180	4,461	6,641
2016	2,103	1,652	3,755	61	1,777	1,838	2,164	3,429	5,593
2015	2,090	1,621	3,711	62	1,302	1,364	2,152	2,923	5,075
2014	1,455	1,022	2,477	67	1,219	1,286	1,522	2,241	3,763
2013	1,586	1,272	2,858	52	1,097	1,149	1,638	2,369	4,007
2012	1,173	934	2,107	39	969	1,008	1,212	1,903	3,115
2011	677	576	1,253	49	851	900	726	1,427	2,153
2010	841	491	1,332	48	724	772	889	1,215	2,104
2009	709	455	1,164	59	787	846	768	1,242	2,010
2008	719	500	1,219	62	904	966	781	1,404	2,185
2007	544	332	876	118	830	948	662	1,162	1,824
2006	450	307	757	118	1,003	1,121	568	1,310	1,878
2005	443	326	769	62	491	553	505	817	1,322
2004	810	518	1,328	57	659	716	867	1,177	2,044
2003	741	579	1,320	56	950	1,006	797	1,529	2,326
2002	596	768	1,364	39	1,063	1,102	635	1,831	2,466
2001	360	360	720	58	738	796	418	1,098	1,516
2000	119	209	328	45	371	416	164	580	744
1999	81	125	206	29	363	392	110	488	598
1998	218	234	452	43	680	723	261	914	1,175
1997	176	249	425	22	684	706	198	933	1,131
1996	168	303	471	18	866	884	186	1,169	1,355
1995	100	212	312	1	469	470	101	681	782
1994	51	192	243	11	420	431	62	612	674
1993	83	79	162	9	280	289	92	359	451
1992	72	115	187	11	188	199	83	303	386
1991	101	372	473	12	141	153	113	513	626
1990	79	254	333	7	134	141	86	388	474
1989	115	188	303	19	145	164	134	333	467
1988	45	163	208	1	85	86	46	248	294
1987	62	259	321	12	59	71	74	318	392
1986	46	27	73	16	36	52	62	63	125
1985	79	14	93	5	40	45	84	54	138
1984	23	21	44	8	12	20	31	33	64
1983	20	18	38	8	13	21	28	31	59
1982	5	40	45	1	3	4	6	43	49
1981	4	21	25	0	0	0	4	21	25
1980	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0
Total	23,127	18,943	42,070	1,673	29,984	31,657	24,800	48,927	73,727

Table A.3 Total numbers of design patent applications, invention patent applications, and overall patent applications in Thailand, split by country of applicants (Source: DIP, Thailand)

		2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
Design	**Thai**	4,044	3,698	3,566	3,162	2,806	2,527	2,292	2,513	2,648	3,171	2,735	2,533	2,524	3,367	2,609	2,624	2,415	1,970
	Japan	446	565	551	545	571	448	444	595	399	283	507	408	447	468	379	304	278	214
	EU	309	407	450	378	258	385	240	324	318	204	318	329	295	341	199	267	172	160
	US	171	147	119	133	137	133	135	128	124	106	110	141	173	159	164	264	198	140
	ASEAN	59	34	38	16	36	60	49	25	20	32	41	13	18	27	29	11	22	24
	Others	440	271	199	227	269	249	321	204	105	77	109	97	103	183	189	161	152	154
	Total	5,469	5,122	4,923	4,461	4,077	3,802	3,481	3,789	3,614	3,873	3,820	3,521	3,560	4,545	3,569	3,631	3,237	2,662
Invention	**Thai**	904	979	1098	1029	983	929	1068	893	922	1062	951	945	1040	891	819	802	615	534
	Japan	3,055	3,353	3,080	3,203	3,230	2,938	2,584	1,401	505	1,774	1,954	1,861	1,572	1,682	1,383	1,327	1,255	1,497
	EU	1,287	1,389	1,618	1,595	1,279	1,170	1,024	529	140	1,193	1,489	2,082	1,812	1,448	1,220	1,134	944	1,081
	US	809	1,135	1,055	1,283	1,263	1,182	961	502	179	1,026	1,264	1,482	1,300	1,466	1,265	1,095	1,068	1,427
	ASEAN	81	78	73	102	120	91	54	37	45	78	57	25	28	90	93	48	47	53
	Others	2,013	931	896	955	1,055	1,097	1,055	544	197	749	1,043	423	509	763	593	537	560	740
	Total	8,149	7,865	7,820	8,167	7,930	7,407	6,746	3,906	1,988	5,882	6,758	6,818	6,261	6,340	5,373	4,943	4,489	5,332
Overall	**Thai**	4,948	4,677	4,664	4,191	3,789	3,456	3,360	3,406	3,570	4,233	3,686	3,478	3,564	4,258	3,428	3,426	3,030	2,504
	Japan	3,501	3,918	3,631	3,748	3,801	3,386	3,028	1,996	904	2,057	2,461	2,269	2,019	2,150	1,762	1,631	1,533	1,711
	EU	1,596	1,796	2,068	1,973	1,537	1,555	1,264	853	458	1,397	1,807	2,411	2,107	1,789	1,419	1,401	1,116	1,241
	US	980	1,282	1,174	1,416	1,400	1,315	1,096	630	303	1,132	1,374	1,623	1,473	1,625	1,429	1,359	1,266	1,567
	ASEAN	140	112	111	118	156	151	103	62	65	110	98	38	46	117	122	59	69	77
	Others	2,453	1,202	1,095	1,182	1,324	1,346	1,376	748	302	826	1,152	520	612	946	782	698	712	894
	Total	13,618	12,987	12,743	12,628	12,007	11,209	10,227	7,695	5,602	9,755	10,578	10,339	9,821	10,885	8,942	8,574	7,726	7,994

Table A.4 Total numbers of granted design patents, granted invention patents, and overall granted patents in Thailand, split by country of applicants (Source: DIP, Thailand)

		2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
Design	**Thai**	1841	2250	2092	2103	2,090	1,455	1,586	1,173	677	841	709	719	544	450	443	810	741	596	360
	Japan	535	597	696	812	837	524	645	425	222	168	222	174	115	116	135	117	102	206	135
	EU	359	445	404	406	402	214	240	191	241	167	121	167	102	74	55	141	158	234	88
	US	126	128	124	136	133	118	121	123	72	57	46	107	84	91	72	115	170	226	111
	ASEAN	35	34	24	44	45	29	21	12	4	8	15	11	10	6	6	21	5	4	1
	Others	234	173	221	254	204	137	245	183	37	91	51	41	21	20	58	124	144	98	25
	Total	3,130	3,627	3,561	3,755	3,711	2,477	2,858	2,107	1,253	1,332	1,164	1,219	876	757	769	1,328	1,320	1,364	720
Invention	**Thai**	172	128	88	61	62	67	52	39	49	48	59	62	119	118	62	57	56	39	58
	Japan	2,040	2,556	2,027	1,164	811	718	661	544	485	399	420	424	347	420	217	273	342	417	296
	EU	413	466	403	294	229	212	184	198	184	139	182	265	210	225	104	134	184	175	121
	US	273	323	325	194	145	139	143	124	114	89	118	161	229	284	119	192	297	306	210
	ASEAN	28	40	31	19	20	16	7	9	4	8	9	12	4	2	4	5	6	4	2
	Others	195	305	206	106	97	134	102	94	64	89	58	42	39	72	47	55	121	161	109
	Total	3,121	3,818	3,080	1,838	1,364	1,286	1,149	1,008	900	772	846	966	948	1,121	553	716	1,006	1,102	796
Overall	**Thai**	2,013	2,378	2,180	2,164	2,152	1,522	1,638	1,212	726	889	768	781	663	568	505	867	797	635	418
	Japan	2,575	3,153	2,723	1,976	1,648	1,242	1,306	969	707	567	642	598	462	536	352	390	444	623	431
	EU	772	911	807	700	631	426	424	389	425	306	303	432	312	299	159	275	342	409	209
	US	399	451	449	330	278	257	264	247	186	146	164	268	313	375	191	307	467	532	321
	ASEAN	63	74	55	63	65	45	28	21	8	16	24	23	14	8	10	26	11	8	3
	Others	429	478	427	360	301	271	347	277	101	180	109	83	60	92	105	179	265	259	134
	Total	6,251	7,445	6,641	5,593	5,075	3,763	4,007	3,115	2,153	2,104	2,010	2,185	1,824	1,878	1,322	2,044	2,326	2,466	1,516

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