

INTEGRATED RESEARCH ON INTELLECTUAL PROPERTY RIGHTS PROTECTION OF JINGDEZHEN CERAMIC ENTERPRISES

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ABSTRACT

Jingdezhen, by virtue of its unique geographical and cultural advantages, has attracted a large number of handicraftsmen to engage in ceramic creation. However, ceramic enterprises are facing numerous difficulties in intellectual property protection. Based on this, this research focuses on issues such as the difficulty in pre-litigation evidence preservation, the difficulty in determining substantial similarity during litigation, and the difficulty in obtaining punitive damages after litigation for ceramic enterprises. Using the literature review method and in-depth interview method, it conducts in-depth discussions on the protection of ceramic intellectual property rights from both theoretical and practical aspects. On the one hand, by sorting out and summarizing relevant literature and data, it clarifies the current situation of intellectual property protection of ceramic enterprises. On the other hand, through on-site in-depth interviews and exchanges with relevant personnel of ceramic enterprises, it identifies the specific challenges faced in the process of protecting ceramic intellectual property rights. In terms of the research results, this study believes that building a ceramic evidence database can improve the infringement determination procedure for ceramic art works and strengthen the protection of intellectual property rights. In addition, strengthening pre-litigation evidence preservation, formulating standards for determining substantial similarity, and promoting the punitive damages mechanism can further promote the vigorous development of the protection of the ceramic intellectual property rights industry.

Keywords: Intellectual property rights, Jingdezhen, Ceramics, Rights protection, Integration

1. INTRODUCTION

1.1 Policy Background

Thanks to its geographical advantages and cultural heritage, Jingdezhen has gathered numerous ceramic enterprises and handicraftsmen, and its ceramic industry is booming, attracting much attention from various quarters.¹ In recent years, in order to meet the challenges of protecting ceramic intellectual property rights, the Jingdezhen Municipal Party Committee and Municipal Government have introduced a series of policies.² In May 2019, when inspecting Jiangxi, General Secretary Xi Jinping pointed out that "the Jingdezhen National Ceramic Culture Inheritance and Innovation Pilot Zone should be built well", which pointed out the direction for the development of Jingdezhen ceramics. On August 26, 2019, the National Development and Reform Commission and the Ministry of Culture and Tourism issued the "Implementation Plan of the Jingdezhen National Ceramic Culture Inheritance and Innovation Pilot Zone", further clarifying the important task of "strengthening the protection of ceramic intellectual property rights and promoting the construction of the Jingdezhen (Ceramic) Intellectual Property Rights Rapid Rights Protection Center".

Subsequently, in April 2020, the Jingdezhen Municipal Government regarded "promoting the upgrading of the China Jingdezhen (Ceramic) Intellectual Property Rights Rapid Rights Protection to the China (Jingdezhen) Intellectual Property Protection Center" as one of the key tasks in the construction of the Jingdezhen National Ceramic Culture Inheritance and Innovation Pilot Zone. In October 2023, when conducting an inspection and research in Jingdezhen again, General Secretary Xi Jinping emphasized the need to "adhere to innovation-driven development, strengthen creative design and R & D innovation, and strive to build an advanced manufacturing system", pointing out a new development direction for the intellectual property work in Jingdezhen. Finally, on November 28, 2023, the State Intellectual Property Office officially approved the proposal for Jingdezhen to

¹ Qinghua He, Xin Zheng, Xin Xiao, Lei Luo, Hui Lin and Shan He. "The Spatiotemporal Evolution and Influencing Factors of the Ceramics Industry in Jingdezhen in the Last 40 Years." *Land* (2023). <https://doi.org/10.3390/land12081554>.

² Lisha Yang, Feng Yu and Yu Nie. "Protection of Jingdezhen Ceramic Heritage Based on Blockchain Technology." *Wireless Communications and Mobile Computing* (2022). <https://doi.org/10.1155/2022/9710902>.

build a national intellectual property protection center. A series of policy measures and instructions have opened a new chapter in the protection of ceramic intellectual property rights in Jingdezhen and laid a solid foundation for the sustainable development and innovation of the ceramic industry.³

1.2 Research Status

Current Development of Ceramic Notarization Business

Currently, ceramic enterprises often rely on notarized evidence preservation to deal with intellectual property infringement issues.⁴ Notary institutions conduct notarization business in accordance with the "Notarization Law of the People's Republic of China" and the "Rules of Notarization Procedure". Regarding the preservation of notarized evidence for ceramic intellectual property rights, there are still deficiencies in specific regulations and provisions of substantive laws.⁵ Therefore, in the process of notarized evidence preservation, certain links and details may lack clear bases, increasing the uncertainty and risks of notarization operations. Although some ministries and local governments have issued relevant guiding documents, these documents are often regional. When facing the preservation of notarized evidence for ceramics, different notary institutions still have differences in the ways of evidence preservation.⁶ When dealing with cross-regional or complex notarization businesses, disputes may arise due to differences in legal operations.

Development of the Determination of Substantial Similarity

As an important rule for determining infringement in the field of intellectual property rights, since its establishment in American precedents, the principle of "substantial similarity + access" has always been at the core of determining infringement. To implement this principle, different countries have

³ Yujia Gong. "The Digital Protection of the Jingdezhen Ceramic." *BCP Education & Psychology* (2022). <https://doi.org/10.54691/bcpep.v7i.2616>.

⁴ H. Ahrens. "Application for preserving evidence." *Unified Patent Protection in Europe: A Commentary* (2018). <https://doi.org/10.1093/oso/9780198755463.003.0362>.

⁵ Cao Zhaoxun. "Ceramics Copyright Protection: in China's Perspective." *Asian Journal of Arts, Culture and Tourism* (2023). <https://doi.org/10.55057/ajact.2022.4.4.4>.

⁶ Putri Isna Vonna, Yanis Rinaldi and T. Mansur. "The Use of the Notary Protocol That Is Stored Digitally as Evidence in the Court." *International Journal of Multicultural and Multireligious Understanding*, 8 (2021): 484-495. <https://doi.org/10.18415/IJMMU.V8I3.2507>.

proposed various solutions. For example, Judge Learned Hand in the United States created the "Abstract Observation Method". In the *Nichos* case, the method of deconstruction was adopted to limit the scope of copyright protection objects through abstraction and filtering. In addition, in American judicial practice, another "Overall Observation Method" starts from the overall concept and feeling, taking multiple creative elements (including unprotected elements of works) as a whole to identify whether the disputed works constitute substantial similarity. It is generally believed that in the analysis of substantial similarity, the Abstract Observation Method should be mainly used, supplemented by the Overall Observation Method.⁷ The latter can only be applied when the former cannot be applied or the application result is obviously unreasonable.

In addition, Guo Shang proposed the "Three-Step Analysis Method", which includes three steps: abstraction, filtering, and comparison. Through the methods of abstraction and filtering, the ideas of works and the expressions belonging to the public domain in works are excluded from the comparison range, leaving the original expressions, so as to improve the efficiency and accuracy of comparison.⁸ Li Ping (2016) proposed in "The Logic and Rules of Determining Copyright Infringement of Ceramic Works" that the judgment angles of substantial similarity should be determined according to different audiences of works, mainly including two types. One is from the perspective of the general public, that is, to judge the substantial similarity of works by the cognitive and understanding abilities of the general rational person without the influence of professional knowledge; the other is from the perspective of ordinary professionals, to see whether the changes of works can be naturally associated by ordinary professionals.⁹ However, both in China and abroad, it is rarely explained to what substantial degree the similarity of works can be recognized as an infringement.

⁷ B. Zhang, D. Small, K. Lasater, M. McHugh, J. Silber and P. Rosenbaum. "Matching One Sample According to Two Criteria in Observational Studies." *Journal of the American Statistical Association*, 118 (2021): 1140 - 1151. <https://doi.org/10.1080/01621459.2021.1981337>.

⁸ Jin-Ho Jhone, I. Song, Mi-Sun Lee, J. Yoon and S. Bhang. "Is the I-PACE (Interaction of Person-Affect-Cognition-Execution) model valid in South Korea? The effects of adverse childhood experiences (ACEs) on internet gaming disorder and the mediating effect of stress on adolescents." *Journal of Behavioral Addictions*, 10 (2021): 967 - 982. <https://doi.org/10.1556/2006.2021.00081>.

⁹ Daryl Lim. "Saving Substantial Similarity." *Law & Society: Private Law - Intellectual Property eJournal* (2020).

Development of Punitive Damages

Since the revisions of the "Patent Law" and the "Copyright Law" in 2020, punitive damages have been formally and comprehensively incorporated into China's intellectual property protection system.¹⁰ Currently, the intellectual property protection of ceramic products mainly depends on the protection of patent rights and copyrights.¹¹ Since punitive damages were only introduced into the protection of copyrights and patent rights in 2020, they have not yet fully penetrated into the field of ceramic intellectual property protection. Currently, in the protection of ceramic intellectual property rights, ceramic utility artworks can pursue the maximum benefits through the dual protection of copyrights and patent rights due to their special nature.¹² The introduction of punitive damages into intellectual property protection will undoubtedly bring changes to the traditional intellectual property compensation system. In the protection of ceramic intellectual property rights, the application of the punitive damages system also needs to be further confirmed.

2. PROBLEM STATEMENT

2.1 Problem Raising

The Preservation of Notarized Evidence for Ceramics Urgently Needs to Be Improved

While the traditional notarization business is shrinking, the volume of intellectual property notarization business is increasing year by year.¹³ It is expected that the amount and proportion of intellectual property notarization services in the entire types of notarization business will continue to rise. According to the "Report on the Development of China's Notarization Services for Intellectual Property Rights" jointly issued by the Department of Guidance on Lawyers and Notarization Work of the Ministry of Justice and the China Notary Association, at present, China's intellectual property

¹⁰ Jie Hong, J. Edler and S. Massini. "Evolution of the Chinese Intellectual Property Rights System: IPR Law Revisions and Enforcement." *Management and Organization Review*, 18 (2022): 755 - 787. <https://doi.org/10.1017/mor.2021.72>.

¹¹ Chao Li, Feng Yu, Y. Nie, Yilai Zhang, Guaghua Song and Chengyang Dai. "Ceramic product copyright transaction model based on blockchain smart contracts." , 12153 (2021): 1215305 - 1215305-9. <https://doi.org/10.1117/12.2626638>.

¹² Robert C. Newman, William Paley's, Lawrence J. Henderson, Paul Davies and Hugh Ross. "Intelligent Design." *The SAGE Encyclopedia of the Sociology of Religion* (2020). <https://doi.org/10.1002/0471684228.egp06402>.

¹³ Tonino Palmisano, V. N. Convertini, L. Sarcinella, Luigia Gabriele and Mariangela Bonifazi. "Notarization and Anti-Plagiarism: A New Blockchain Approach." *Applied Sciences* (2021). <https://doi.org/10.3390/app12010243>.

notarization business mainly includes: notarization of the subject's qualification, such as notarization of business licenses; notarization of contracts and agreements, such as notarization of trademark right transfer agreements; notarization of statements and authorizations (powers of attorney), such as trademark transfer statements, authorizations to handle relevant application procedures and registration procedures; notarization of evidence preservation, such as the fixation of infringement evidence.¹⁴

On October 9, 2021, the State Council issued the "14th Five-Year Plan for the Protection and Utilization of National Intellectual Property Rights", pointing out that intellectual property rights are emerging continuously, and the social and economic values of intellectual property rights are highly valued. In notary institutions, the hardware such as computers and servers involved in the preservation of notarized evidence for intellectual property rights is rather rudimentary, resulting in unclear shooting of the appearance of infringing ceramics and incomplete details.¹⁵ For the business of preserving evidence of ceramic intellectual property rights, it is necessary to seal up the infringing ceramic products. However, the nature of the sealed ceramics varies. In addition, the overglaze colored ceramics may have the possibility of fading. And the infringing ceramics are often used as key evidence together with notarial documents in intellectual property lawsuits.¹⁶ If the sealed ceramic evidence is damaged or lost, it will have an adverse impact on the subsequent lawsuits of the parties.

High Difficulty in Judging Similarity

In past cases, when courts judged the similarity of ceramic works, they often split various elements of the works and determined whether the defendant's work constituted substantial similarity by judging whether the combination of each element in the defendant's work was similar to that of the

¹⁴ Yang Gao. "The Fundamental Questions of Cyber Evidence Are Discussed." *DEStech Transactions on Social Science, Education and Human Science* (2019). <https://doi.org/10.12783/dtssehs/eiem2018/26971>.

¹⁵ E. Shapkina. "THE ROLE OF THE NOTARY IN PROTECTING INTELLECTUAL PROPERTY RIGHTS." *Нотариальный вестник* (2023). https://doi.org/10.53578/1819-6624_2023_10_53.

¹⁶ Chao Li, Feng Yu, Y. Nie, Yilai Zhang, Guaghua Song and Chengyang Dai. "Ceramic product copyright transaction model based on blockchain smart contracts." , 12153 (2021): 1215305 - 1215305-9. <https://doi.org/10.1117/12.2626638>.

original work.¹⁷ This judgment method is effective, but it is only applicable to cases where the similarity of works is extremely high or extremely low, and it is difficult to play its role in relatively complex cases. Without specifying to what substantial degree the works need to be similar to constitute infringement, judges can only judge whether it meets the standard of substantial similarity based on their own subjectivity.¹⁸ This problem gives judicial personnel greater discretionary power while also placing extremely high requirements on the professionalism of judicial personnel.

Weak Punishment for Infringement

Regarding the intellectual property protection of ceramic enterprises, scholars have two completely different views.¹⁹ One view holds that due to insufficient protection of intellectual property rights, when enterprises suffer substantial infringement of their ceramic products, their compensation needs cannot be met, the infringers are not properly punished, and the infringement cannot be deterred. The other view holds that excessive protection of intellectual property rights will lead some ceramic enterprises to cause monopoly in the ceramic industry through malicious lawsuits for intellectual property compensation.²⁰

Regarding the first view, scholars Zhan Ying and Zhang Hong pointed out that although the current "Copyright Law", "Trademark Law" and "Patent Law" in China have stipulated various determination standards for intellectual property damage compensation, in judicial practice, most cases cannot meet the compensation needs of the infringed. When the judicial department resolves compensation for intellectual property disputes, it often adopts a "muddling through" solution strategy and thus adopts the final fallback statutory compensation standard.²¹ This makes it impossible for the right holders to obtain a reasonable compensation amount, and the strength of

¹⁷ Mitko Sabev. "Grayson Perry. Has Ceramic Art Achieved its Renaissance?." *Visual Studies* (2022). <https://doi.org/10.54664/piaf8576>.

¹⁸ Daryl Lim. "Saving Substantial Similarity." *Law & Society: Private Law - Intellectual Property eJournal* (2020).

¹⁹ L. Yaji. "Analysis in Global and Chinese Patent Information for Zirconia Ceramics." *China Ceramics* (2015).

²⁰ Peicheng Wu. "Bad faith litigation of intellectual property as a violation of China's anti-monopoly law: How should the current approach be improved?." *Asia Pacific Law Review*, 32 (2023): 60 - 80. <https://doi.org/10.1080/10192557.2023.2274634>.

²¹ T. Greenhalgh and K. Malterud. "Systematic Reviews for Policymaking: Muddling Through.." *American journal of public health*, 107 1 (2017): 97-99 . <https://doi.org/10.2105/AJPH.2016.303557>.

intellectual property rights naturally appears weak. Therefore, to solve the current problem of insufficient protection of ceramic intellectual property rights, it is necessary to first solve the problem of the compensation standard for handling intellectual property disputes by the court.

Regarding the second view, some scholars pointed out that in the context of the comprehensive introduction of punitive damages into intellectual property protection, if the principle of punitive damages is improperly applied, malicious lawsuits are likely to breed. Zhu Jinmei (2017) proposed in her research that before the improper litigation behavior of malicious lawsuits is reasonably regulated, whether to introduce the punitive damages mechanism still needs to be carefully considered. This means that in the context of the comprehensive introduction of punitive damages into intellectual property protection, it is still necessary to reasonably regulate the punitive damages system to prevent the occurrence of excessive protection of intellectual property rights caused by its high compensation amounts.

2.2 Research Objectives and Questions

This research aims to address the difficulties that ceramic enterprises currently face in protecting their intellectual property rights.²² To solve the relevant problems, this study intends to discuss from three aspects: evidence collection before litigation, determination during litigation, and compensation after litigation.

Firstly, this research aims to explore the optimized path for the preservation of notarized evidence of ceramic intellectual property rights in the process of enterprises safeguarding their rights. Secondly, this research aims to optimize the construction of the similarity analysis theory of ceramic artworks in the process of enterprises safeguarding their rights. Thirdly, this research aims to solve the problems regarding the application and limitations of the punitive damages principle in the process of enterprises safeguarding their rights.

Based on this, this research will answer the following questions:

Firstly, how to build relevant platforms and utilize the existing notary system to improve

²² Zhiwen Gong. "Development Problems and Countermeasures of Jingdezhen Ceramic Culture Creative Industry." *DEStech Transactions on Social Science, Education and Human Science* (2018). <https://doi.org/10.12783/DTSSEHS/ADESS2017/17920>.

the preservation of notarized evidence for ceramic works? Secondly, how to perfect the similarity judgment mechanism of ceramic artworks to ensure the relevant rights of ceramic enterprises? Thirdly, how to apply the compensation rules to balance the conflict between the compensation needs of ceramic enterprises and malicious lawsuits?

In conclusion, taking the Jingdezhen ceramic market as the object and focusing on the ceramic artworks that are commonly characterized by patterns, supplemented by colors and shapes in the ceramic art market, this research will conduct studies on the above issues by combining relevant literature and on-site interviews.

3. RESULT

3.1 Optimizing the Preservation of Notarized Evidence for Ceramics

Given the fragile nature of ceramic products, after the preservation of notarized evidence, the evidence of relevant ceramic products may be damaged due to improper preservation. Since ceramic evidence serves as crucial evidence in intellectual property lawsuits, the damage to ceramic evidence will weaken the probative force of the originally strong notarized evidence.²³ To solve such problems, we can draw on the 3D scanning technology used in cultural relics protection. By using 3D scanning technology, the shapes, patterns, and colors of ceramic works can be converted into easily preservable data, and this data can be further converted into hash data and attached to the notarial documents. This method not only solves the problem of possible damage to ceramic products during the process of notarized evidence preservation and storage but also provides more complete data evidence for subsequent similarity analysis.

Improving Copyright Registration

The current registration model only uses two-dimensional flat pictures to retain evidence of the registered work's information.²⁴ This registration model does not preserve the work's information

²³ Jian Liu, Chengqing Wu, Jun Li, Jianguang Fang, Yu Su and Ruizhe Shao. "Ceramic balls protected ultra-high performance concrete structure against projectile impact—A numerical study." *International Journal of Impact Engineering* (2019). <https://doi.org/10.1016/J.IJIMPENG.2018.11.006>.

²⁴ Fawad Ahmad and Lee-Ming Cheng. "Authenticity and copyright verification of printed images." *Signal Process.*, 148 (2018):

completely. For example, two-dimensional flat photos cannot fully retain the shape information of three-dimensional works, nor can they fully present the patterns existing in three-dimensional works. The incompleteness of the registered work's information may lead to certain difficulties in the process of determining infringement. To solve such problems, during the copyright registration process, in addition to registering the author, time of the work, and taking flat photos, 3D scanning technology should also be used to preserve the shape data, two-dimensional pattern data, and color data of the work, and convert them into hash data. The similarities and differences between the hash data and the hash data converted from the registration time of the work's author will be stored in the blockchain of the work registration, providing the original data of the work for the similarity analysis in the subsequent process of determining infringement.

3.2 Determining the Rules for Similarity Analysis

Establishing the Rules for Similarity Analysis

Through the study of 21 cases involving the substantial similarity analysis of ceramic works on the China Judgments Online website, it can be found that in practice, judges' determination of substantial similarity is relatively weak. In practice, the determination of substantial similarity usually adopts the general consumer standard, that is, ceramic works can cause visual confusion to ordinary consumers or the standard that ordinary observers believe that the design of the plagiarist mostly imitates the original. This judgment standard has certain deficiencies, namely, there is more subjective determination and less objective analysis. This judgment standard can only be applied to situations where the similarity gap between the infringing work and the original work is large or small. When the similarity between the infringing work and the original work is at an intermediate threshold, using the general consumer standard to judge it will result in a relatively large deviation. As an important part of infringement determination, using the general consumer standard to judge substantial similarity is insufficient to handle more complex cases. Therefore, it is necessary and of practical value to formulate a complete and rigorous similarity analysis standard for ceramic art works to deal with more complex infringement cases of ceramic works.

Specifically, the similarity analysis rules should include the following three steps:

First, through the three-step analysis method (i.e., abstraction, filtering, and comparison), the creative ideas that should not be protected in the works and the parts that have entered the public domain are excluded to avoid affecting the accuracy of similarity judgment. To be more specific, by using the abstraction method, the ideas of the works are abstracted and not compared; by using the filtering method, the parts of the thought expressions that both sides have but have entered the common domain are filtered out; by using the comparison method, the two works are compared. If there is still substantial similarity between them, they should be regarded as infringing.

Second, following the comparison method in the first step, a comparison of substantial similarity scores is carried out. That is, the parts of ceramic art works that need to be compared for substantial similarity are divided into three parts: patterns, color combinations, and shapes. Based on the on-site interview data of local handicraftsmen in Jingdezhen, corresponding proportions of substantial similarity are assigned to different parts (the ceramic works discussed here are limited to those that are most commonly present in the market and use the combination of patterns, colors, and shapes as the artistic expression form). The pattern accounts for 80% of the similarity proportion, the color accounts for 10% of the overall similarity proportion, and the shape accounts for 10% of the overall similarity proportion. When the comprehensive similarity proportion after the comprehensive evaluation of patterns, color combinations, and shapes reaches 70%, it can be basically determined that the infringing work and the original work constitute substantial similarity.

Third, the judicial personnel use the general consumer standard to judge the substantial similarity of the works involved in the case. If two-thirds of the judicial personnel have opinions contrary to the substantial similarity analysis report, a review procedure will be initiated. The judgment of whether the works involved in the case constitute substantial similarity will be handed over to ordinary consumers and experts and scholars in the ceramic industry. According to the audience of ceramic works, the voting proportion will be divided into 60% for experts and 40% for ordinary consumers.

Building an Infringement Determination Service Platform for Ceramic Art Works

Building an infringement determination service platform for ceramic art works and collaborating

with notary institutions and copyright registration departments can effectively help ceramic enterprises safeguard their rights.

When ceramic enterprises discover the existence of infringement phenomena, they should promptly submit an application and relevant materials to the Ceramic Art Works Infringement Determination Service Center.²⁵ Under the witness of notary personnel, the applicant completes the purchase notarization evidence preservation and submits the purchased infringing products to the center for scanning and deconstruction. After the center completes the scanning, the infringing ceramic data is encrypted and transmitted to the notary institution, and the notary institution issues a notary document. Meanwhile, the center retrieves the product data of the infringed ceramic enterprise from the Copyright Bureau for comparison. Finally, the infringed ceramic enterprise uses the notary evidence to file a lawsuit, and the center provides an analysis report of the comparison of infringing data. The court applies the corresponding floating punitive damage rules according to the data provided by the notary document and the similarity analysis report to determine the specific compensation amount.

3.3 Adopting the Floating Punitive Damages Strategy

After obtaining the similarity analysis report on the infringement determination of ceramic art works issued by the Ceramic Art Works Infringement Determination Service Center, the court can then make a reasonable judgment on the infringement of ceramic works based on this analysis report. This similarity analysis report combines the evidence collected by the notary office and the similarity data analyzed by the Copyright Bureau. It can not only display the evidence collected by the notary office to the judge in an intuitive and clear manner but also provide the judge with a complete and rigorous set of similarity analysis rules for ceramic art works to deal with more complex infringement cases of ceramic works.

Usually, before determining the amount of compensation for a case, the court must first determine the compensation principle applicable to this case. Currently, there are mainly three types

²⁵ Joris Demmers, W. Dolen and J. Weltevreden. "Handling Consumer Messages on Social Networking Sites: Customer Service or Privacy Infringement?." *International Journal of Electronic Commerce*, 22 (2018): 35 - 8.
<https://doi.org/10.1080/10864415.2018.1396110>.

of compensation principles that can be adopted in intellectual property infringement compensation. One is the punitive damages principle aimed at deterring infringers and preventing the occurrence of infringement; another is the compensatory damages principle mainly focused on compensating the losses of the parties; and the last is the statutory damages determined quantitatively by the judge according to the circumstances.

The amounts of compensation under the guidance of these three compensation principles also vary. The purpose of the punitive damages principle is to deter infringers and prevent the recurrence of infringement, so the amount of compensation naturally needs to reach a relatively high value to play a punitive role. An additional amount of compensation is further imposed on the basis of meeting the compensation needs of the right holder. Therefore, the punitive damages principle is the strictest among the three compensation principles. The purpose of the compensatory damages principle is to compensate for the losses of the right holder, and it only needs to meet the compensation needs of the right holder. The statutory damages principle is the compensation made by the court according to the legal provisions to ensure the minimum interests of the right holder when the calculation standard in intellectual property infringement cases is ambiguous and difficult to determine.

According to the relevant provisions of China's intellectual property laws, the calculation standards for intellectual property infringement compensation include: the actual losses of the right holder, the illegal gains of the infringer, the usage fees of the rights and their multiples. After obtaining the similarity analysis report on the infringement determination of ceramic art works issued by the Ceramic Art Works Infringement Determination Service Center, the court can make a floating selection of the compensation principle based on this similarity report. When the similarity between the defendant's product and the plaintiff's product reaches 70% or more after comparison, it can be basically determined that the product has suffered serious infringement, and the judge can then apply the punitive damages principle to the infringer. When the similarity value of the two products given by the similarity report is within the range of 35% - 70% (including 35%), it indicates that the similarity degree is moderate, and the judge only needs to apply the compensatory damages principle to compensate the reasonable losses of the right holder. When the similarity given by the

similarity report is lower than 35% (excluding 35%), the defendant's product may have only made some reasonable references to the plaintiff's product without causing substantial infringement, and the plaintiff may have the situation of abusing litigation. At this time, the judge can adopt the statutory damages with a high degree of discretionary power to give the plaintiff partial compensation for some comfort.

In addition, it should be noted that the similarity report is only for reference for the judge, and it is only applicable to general infringement cases. For some special infringement cases, this analysis report may not be able to accurately provide the comparison of infringement. For example, the most original part of the design of some ceramic products is only reflected in a certain part. If the similarity report is still used for comparison at this time, it is likely to result in the comparison similarity not reaching the level of substantial infringement, but in fact, the product of the right holder has already been infringed. At this time, the similarity report is obviously inconsistent with the actual situation.

To address this issue, in the field of comparative law, we can draw on the relevant provisions of American law. Article 284 of Chapter 35 of the United States Code on the provisions of patent infringement damages states that "the court may accept the opinions of expert witnesses, which will help to determine damages or reasonable royalties." In contrast, there is no such provision in China's legal provisions on punitive damages. However, even though there is no explicit provision in the legal provisions that the judge can refer to the opinions of experts and scholars, such a practice can be referred in judicial practice. In judicial practice, when the judicial officer encounters the situation where the calculation standard stipulated by the law is uncertain, he can adopt the opinions of experts. Experts analyze and compare the similarities of the unique points of the two products to provide opinions to the court on the judgment of similarity infringement, and the court then makes a decision based on the actual situation.

This similarity analysis report can not only provide a basis for the judge to select the compensation principle but also avoid the judge's subjective speculation in the application of the compensation principle to a certain extent. Currently, when dealing with intellectual property compensation, punitive damages are often avoided. Sometimes, even in the case of substantial

infringement, when making the final compensation judgment, punitive damages are not adopted but instead the compensatory damages principle and the statutory damages principle are used.

Punitive damages have been introduced into the intellectual property protection system not long ago. Even though there are new legal regulations, the judicial practice actually needs a transition period to accept them. Moreover, in the current judicial practice, there are relatively few cases where punitive damages are actually adopted, and there is less experience that can be drawn on in the judicial practice of punitive damages in intellectual property protection. The high amount of fines makes judges reluctant to use them easily for judgment.

As far as the provisions themselves are concerned, according to the Copyright Law and the Patent Law, which are most involved in the protection of Chinese ceramic utility artworks.²⁶ Through the analysis of the relevant legal provisions on punitive damages, the calculation basis of the amount of punitive damages is usually the illegal gains of the infringer, the actual losses of the right holder, and the corresponding usage fees of the rights license. When all of the above standards are difficult to determine, the amount of compensation is determined by the people's court at its discretion according to the infringement behavior, nature and circumstances to impose fines.

Therefore, it is not difficult to find that when there is little or no relevant judicial experience to draw on and the calculation standard is uncertain, judges often abandon punitive damages and instead use the statutory damages with strong operability and a high degree of freedom to make discretionary judgments on fines. However, the compensation judged in this way is often lower than the amount of punitive damages and cannot compensate the parties, punish the infringers and prevent the recurrence of infringement. But if there is this similarity analysis report when making the judgment, then there will be a basis for reference when selecting the compensation principle for compensation judgment.

In addition, the introduction of the punitive damages principle into intellectual property protection will inevitably bring new problems. The high amount of punitive damages may also give rise to the occurrence of malicious litigation. Therefore, reasonable regulations should also be

²⁶ Wenting Huang. "Protecting Product Designs through Design Patents and Copyright Law in China." *Beijing Law Review* (2021). <https://doi.org/10.4236/blr.2021.123045>.

imposed on punitive damages to avoid some ceramic enterprises obtaining high punitive damages through malicious litigation to suppress other enterprises and prevent the emergence of a monopoly situation in the ceramic industry market.

Due to its particularity, ceramic utility artworks can be protected by design patent for their manufacturing process and exterior structural design through the Patent Law, and can also be protected by copyright for their art work part through the Copyright Law. This also enables ceramic enterprises to adopt both copyright and patent rights for dual rights protection for some of their products. In the context of the comprehensive introduction of punitive damages into intellectual property protection, this is likely to lead to the emergence of excessive protection of intellectual property. Therefore, when applying for intellectual property registration, ceramic enterprises can selectively choose the protection path that is favorable to them for registration in terms of copyright and design patent.

In addition, since copyright and patent rights are two different rights, they can also be registered simultaneously. Since copyright adopts the principle of automatic acquisition, ceramic enterprises may not register the copyright of their products. However, when the product is infringed, the enterprise can naturally apply for intellectual property rights protection for the copyright and design patent of the product. But at this time, the right holder can only apply for protection for one right when applying for protection, because applying for intellectual property protection by simultaneously adopting both copyright and patent rights will result in the concurrence of claims. For ceramic utility artworks, whether they are protected through copyright or patent rights, the claims requested by the right holder are all to stop the infringement and compensate for the losses, and there is no essential difference in the basic protection and effect provided by the two claims. It can be inferred that the behavior of simultaneously requesting copyright protection and patent protection will lead to the concurrence of claims.

4. CONCLUSION

This research has conducted an in-depth exploration of the numerous difficulties faced by Jingdezhen ceramic enterprises in intellectual property protection. By combining the literature review method

and in-depth interview method, several important conclusions have been drawn.

Firstly, this research recognizes that ceramic enterprises encounter challenges in the preservation of pre-litigation evidence. Therefore, it is recommended to build a ceramic evidence database to improve the infringement determination procedures and strengthen the protection of intellectual property rights.

Secondly, in response to the difficulties in determining substantial similarity during litigation, it is suggested to formulate clear determination standards to make the infringement determination of ceramic art works more precise and effective.

Finally, regarding the problem of the difficulty in implementing punitive damages after litigation, this research recommends promoting the improvement of relevant legal mechanisms and strengthening the punitive damages for infringement behaviors, so as to further promote the healthy development of the ceramic intellectual property protection industry.

In conclusion, this research holds that strengthening the preservation of pre-litigation evidence, formulating the determination standards of substantial similarity, and promoting the punitive damages mechanism are effective ways to solve the difficulties in intellectual property protection faced by Jingdezhen ceramic enterprises. These measures will help to create a favorable innovation environment, protect the creative achievements of enterprises, and promote the sustainable development of the ceramic industry. It is hoped that the conclusions of this research can provide references for relevant departments and promote the further improvement and enhancement of ceramic intellectual property protection work.

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