A SUBSTANTIAL FORGERY FIXING IN FORENSIC DOCUMENT EXAMINATION

Naulak Lian Paite*, B. P. Mishra, Sandeep Kumar Pathak

Central Forensic Science Laboratory, 30, Gorachand Road, Kolkata- 700014 , India.

* *Central Forensic Science Laboratory, 30, Gorachand Road, Kolkata- 700014 , India; Email: lnaulak@rediffmail.com*

ABSTRACT: One of the dilemma that constantly arises in the way of forensic document examination is fixation of forgery in a white collar fraud case. Analysis of the limitations leading to such an important facet of document examination reveals the following major factors: (1) The questioned writings and signatures being too consciously written are devoid of basic handwriting characteristics and appears to be drawn. It is imperative to state here that a drawing can be authored by multiple persons and fixation to a single writer becomes a difficult if not an impossible task. (2) Lack of corroborative features/characteristics which can contribute to the effective interpretation of the signature/writing of interest i.e. the forged one. (3) Lack of samplers, not in quantity but rather in quality viz. abundant in shape and formation but devoid of freeness and rhythm. This paper is a collective articulation of the above lacunae which was collectively found in a case study. Feature-wise extraction of the forged signature, study of the corroborative and peripheral evidences collectively led to the authorship of the forged signature and ultimately deliverance of natural justice.

Keywords: Forgery, sampler, rubber stamp impression, idiosyncrasy, natural writing habit.

Introduction

The term white collar crime was first coined by Edwin Sutherland in 1949 and described as a crime committed by a person of respectability and high social status in the course of his or her occupation [1]. Due to get-rich-quick syndrome and the modus operandi to become rich, white collar crime increased with the passing of time. White collar crime is a very wide and popular way of crime in respect of financial matters. With the changing phenomena and mentality of criminals now a days, it's become a challengeable task for fix an authorship on simple drawn signatures [2].

Handwriting, as well as signature is an individual style of a person [3,4]. The style is adopted by copying writing from the individuals they like and it also undergoes natural variation during the entire course of his/her life [5]. It is a neuromuscular task and hence as a writer begins to write, the images that are stored in the mind in the "copybook form" is reflected in the writing which culminates in his individual writing habits [1].

Many writers, conscious of possible forgery, inject a "secret" personal ingredient into their signatures on important documents which would not be employed in their signatures on a different class of documents of more personal characters. Intentional alteration of the writer in their writings and signatures are a common phenomenon in many white collar crimes [1,2]. Every document refers to something that contains some information [1].

A case was examined and forgery has fixed on the basis of handwriting examination report by applying methodology and principles of handwriting science [6]. The investigation officer collected the specimen Sampler and Rubber stamp impression of suspected person in order to fix authorship. This challengeable case was carefully, thoroughly and scientifically examined for idiosyncrasy or natural writing habit of writer with the help of available scientific aid available in CFSL, Kolkata. The case was successfully opined regarding the common authorship and forgery fixed with the suspected person in the service of Justice.

This paper shows an important case study regarding the fixation of authorship of simplified and forged signature with the collaboration of circumstantial evidences. These corroborative and circumstantial evidences collectively provide the sufficient scientific data for opining the common authorship of the forged signature and ultimately provide the result for natural justice. Due to uniqueness of the nature of the case, the present case study is an important case study for the fixation of simplified signature forgery.

Details of Case Examination

The present case was forwarded by the appropriate authority for a handwriting expert opinion, and the

disputed document is demonstrated in Figure 1. Figure 2 demonstrates a A view of specimen signatures, writings and rubber stamp impression while Figure 3 shows a magnified image of the forged signature.

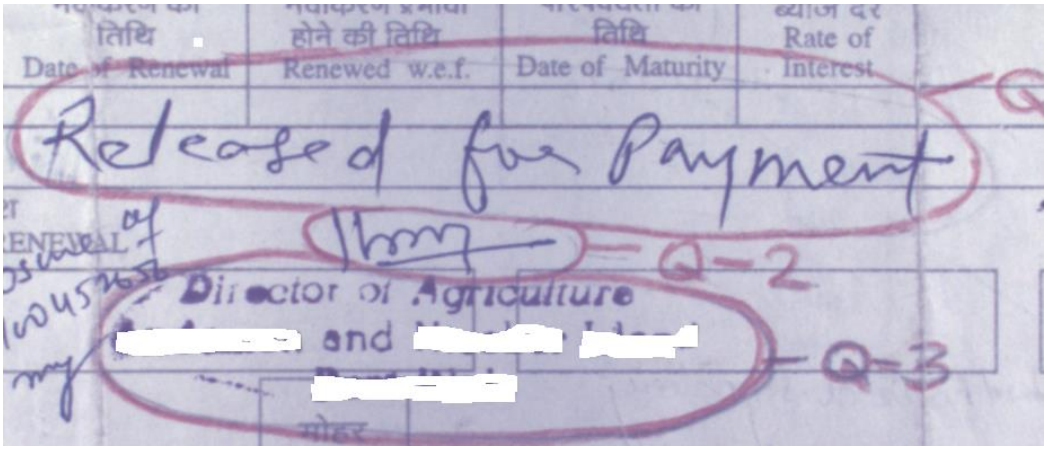
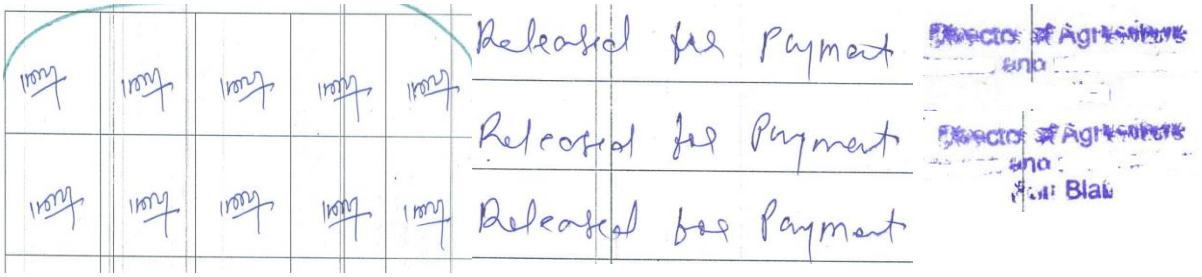


Figure 1: An overall view of disputed document.



(a) (b) (c)

Figure 2: A view of specimen of (a) signatures, (b) writings and (c) rubber stamp impression

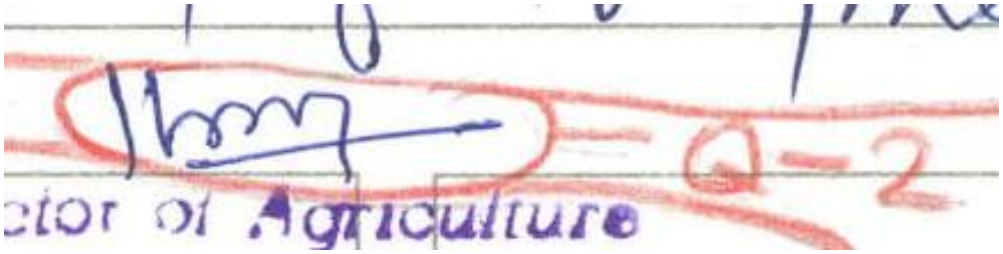


Figure 3: A magnified image of the forged signature

The questioned writings were marked as Q1 and signature as Q2 while rubber stamp impression marked as Q3. The writings and rubber stamp impression in the course of examination were cultivated as corroborative evidences for the fixation of the forged signature marked as Q2. The specimen signatures were taken by the Investigating authority and supplied for expert opinion. The quality of the questioned handwriting was legible and it was suitable for examination.

The hurdle in the effective fixing of authorship was mainly:

(a) Lack of idiosyncrasies *i.e.* absence of discriminating handwriting characteristic which can be attributed to a particular person.

(b) Hesitation in execution of the forged signature leading to slight defective line quality. This arises as a result of the accused person being reluctant to give samplers in the form as available in the questioned writings/signatures.

Scientifically examination of the case documents it was revealed that the marked signature Q2 on submitted document was forged, but the hurdle in the effective fixing of authorship were the factors

mentioned above *viz*: (a) Lack of idiosyncrasies i.e absence of discriminating handwriting characteristic which can be attributed to a particular person and (b) Hesitation in the execution of the signature leading to slight defective line quality.

On examination of the document under UV light, the notable feature about the writings was that it could be dated to the forged signature as the ink used in both cases was of the same tint and luster as shown in Figure 4. Document under UV light shows similar behaviour under the UV (wavelength 365 nm) showing similar ink used for generation of both writings and signature (Q1 & Q2), as demonstrated in Figure 5.

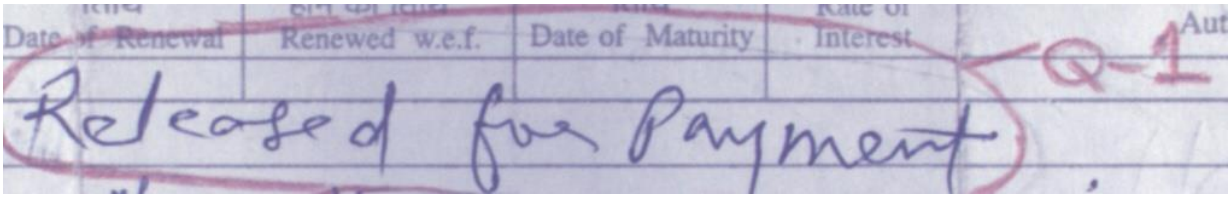


Figure 4: A magnified image of the questioned writing (Q1)

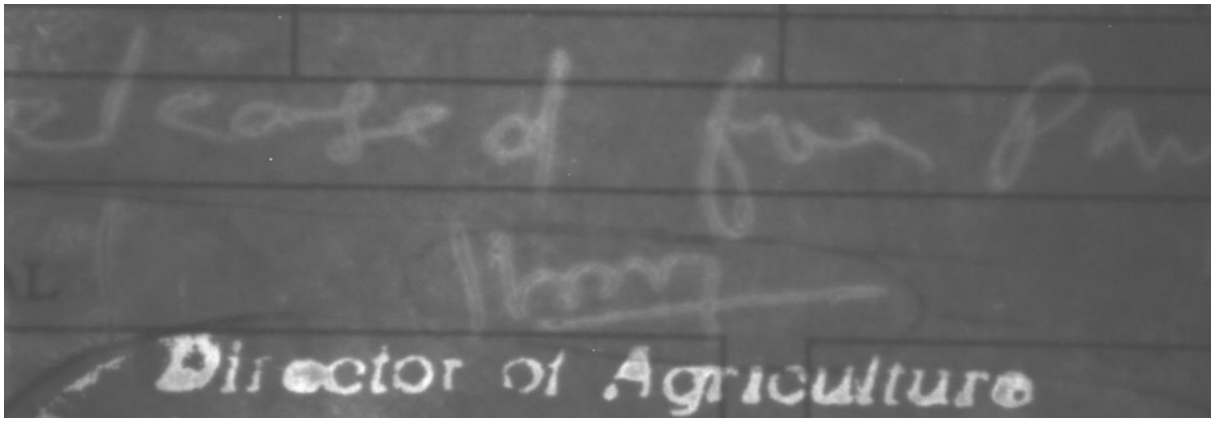


Figure 5: Document under UV light shows behaviour under the UV (wavelength 365 nm) showing similar ink used for generation of both writings and signature (Q1 & Q2)

Moreover, the commonness of the authorship was also featured in both Q1 & Q2 through the study of individual characteristics [2], through the execution of the descender in the terminal part of signature and letter 'y' in the writings (Figure 6) and the angularity of the 2nd foot of letter 'm' in the writings which can also be linked to the signature, as demonstrated in Figure 6.

Figure 6: Comparison of common features in writing and signature

On the examination of rubber stamps by use of superimposition technique, it was observed that the questioned rubber stamp impression did not tally the specimen rubber stamp impression. This observation corroborates the fact that the questioned rubber stamp, from which the questioned impressions were obtained, has been maliciously manufactured. This observation contributed to the fact that the signature on top of it has been forged with a criminal intent.

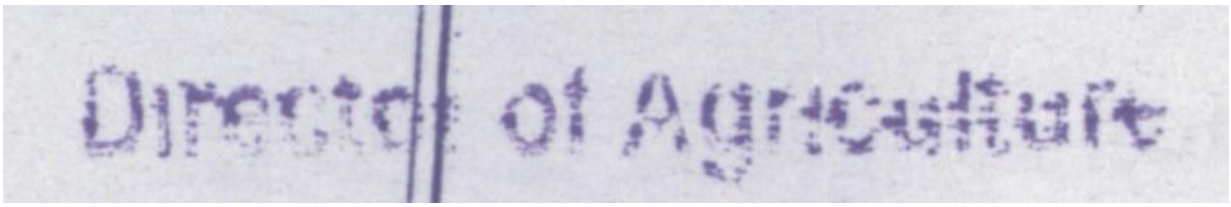


Figure 7: Questioned rubber stamp to be marked as Q3.

Figure 8: Standard rubber stamp impression.

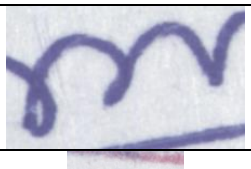
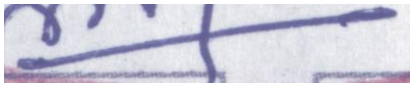
The contributing factor in the adequacy of samples is the demonstration of the natural habits of the writer resulting in freeness in formation of characters [3,6]. This is a great impediment in forgery fixing as the samplers always are in the form of drawing.

This particular case consisted of sampler where the characteristics were erratic due to the hesitancy of the writer. But the large quantification of the samples exhibited certain characteristics which could be attributed to the habit of the writer and hence could be assimilated to the features available on the forged signatures.

Results and Discussion

The success of forgery fixing remains a formidable task, but is achievable as illustrated in this case study. Table 1 shows the Comparison of common features between forged and sample signatures. The adequacy of the samplers resulting in exhibition of the natural writing habit of the author which can be mapped to the handwriting characteristics available in the forged signatures. The contribution of the peripheral evidences viz. the writings above the forged signature which was linked to the author of the forged signatures. The corroborating evidence of a forged rubber stamp impression contributed immensely as this laid the foundation for the process of forgery fixing.

Table 1: Comparison of common features between forged and sample signatures.

Characteristics	Questioned signature	In Standard signatures
Relative spacing, size as well as ticked start of the first two characters		
Curvature of the shoulder		
Relative shape of the terminal part of the signature		
Ticked commencement and finish of the underscoring		

Conclusion

The approach of harvesting information from the peripheral/corroborative evidence coupled with the feature extraction of the handwriting characteristics available both in the writing and signatures of the author have led to the distinctive identification of the forged signature.

References

1. Koppenhaver, K. M. (2007). Forensic Document examination: Principles and Practice. India: Humana Press.
2. Kelly, J.S., Lindblom, B.S. (2006). Scientific examination of questioned documents. New York: CRC Press.
3. Osborn, A. S. (1929). Questioned document. Forgeries. Chicago: Nelson-Hall Co.
4. Ansell, M. (1979). Handwriting Classification in Forensic Science. Visible Language. 13(3):239-251.
5. Huber R. A., Headrick, A. M. (1999) .Handwriting identification - Facts and Fundamentals. New York: CRC Press.
6. Gupta, R. R., Ravi, N. (2018). A Successful Examination of Writing in Fixing Authorship-A Case Study. Forensic Science & Addiction Research. DOI: 10.31031/FSAR.2018.03.000560