

TECHNICAL NOTE

Jay Levinson,¹ Ph.D.

Passport Examination

REFERENCE: Levinson, J., "Passport Examination," *Journal of Forensic Sciences*, JFSCA, Vol. 29, No. 2, April 1984, pp. 628-632.

ABSTRACT: This article highlights some of the frequent questioned document problems with passports, and the primary types of examinations that are often most successful.

KEYWORDS: questioned documents, passports, document security

As international travel has increased, passports have become a more frequent questioned document submitted for examination. Passports are used by travelers not only to cross international frontiers, but also as the essential identification document in cashing travelers checks, exchanging currency, and using credit cards. Foreign passports, often decades old, are sometimes offered as proof of age in order to qualify for pension benefits.

Passport examination is both a general questioned documents problem and a technical field in its own right.

The purpose of this article is to better acquaint the document examiner with the various types of problems common in passports and the types of examinations that generally offer the best results [1-3].

Visual Examination

Normally, the first aspect of a traditional questioned documents examination is to examine visually the basic qualities of the document at issue. In passport examination this is particularly important, since many forged passports are designed only to pass cursory visual inspection, but they cannot pass careful visual scrutiny.

The first part of a passport that is usually handled is the cover, coincidentally the most difficult part of the passport to forge. In a securely designed passport the cover has its own weight, texture, pliability, and color. When these aspects of the passport cover are examined, care should be taken to use comparative material at least roughly contemporaneous with the questioned document. Since many countries print extremely large numbers of passports, there are usually numerous printings of the same basic edition; sometimes each printing has its own minor variations.

In many passports the covers are designed with a distinctive background pattern. It is

Received for publication 11 July 1983; accepted for publication 8 Aug. 1983.

¹ Examiner of questioned documents, Israel Police, National Headquarters, Jerusalem, Israel.

generally difficult, if not impossible, to buy the exactly appropriate cover material [4], and impressing the background pattern only further complicates the forger's problems.

Another complicating factor in forging a passport cover is to imitate properly the process of imprinting the country name/seal on the cover. Although the exact printing process can often be identified visually with the aid of magnification, the constituents of the stamping foils or printing inks forms a much more technical examination.

In forged passports, the cover sometimes is genuine! To avoid problems of forging passport covers, some forgers have preferred the system of removing genuine covers from documents and placing those around forged inner pages.

In recent years there has been a concerted international effort to standardize the size of passports, and with the introduction of the Machine Readable Passport (MRP) the standardization is becoming even more critical and stringent. Nonetheless, the standardization process is slow, uncertain, and problematic. There are numerous countries that have varied the size of their passports according to printing run; other countries have consciously changed passport size without formal notification.

In examining the binding of a passport, there are at least three different types of fraud that should be borne in mind:

1. To detect a fraudulent binding in a totally counterfeit passport, the stitching should be checked for characteristics of the string and the location, size, number, and pattern of the stitches.
2. To detect the process of passport disassembly, page substitution, and subsequent re-stitching, the binding should be examined for unused holes made in the initial process of stitching the passport, but missed by the forger the second time the document was assembled. To do a complete examination the examiner must inspect for unused holes inside the front cover, in the center spread, and inside the back cover of the passport. In some cases the unused holes can be detected in only one of the three places.
3. When pages are torn from a passport, usually to hide sections of the travel record, the binding can become loose; and, in some cases small scraps of the missing page(s) can be detected in the binding area. As a routine procedure it is good to check the page numbers of the passport to verify that no page was neatly torn out.

In many fraudulent passports there is an alteration in certain of the personalia or issuance entries. Generally, these alterations are in the areas of name of bearer, date of birth, date of passport issuance/expiry, or conditions of passport validity. In most instances, do not look for the alteration in the month of birth; reason says it will probably be in the year. Since many of these entries can be critical to success in passport fraud, innovative alteration techniques are limited only by the forger's imagination and skill.

In alterations of the passport bearer's name, there have been many attempts ranging from manual or chemical erasing of the entire name to merely adding or changing specific letters of the existing name. The purpose of changing the name of bearer is usually to avoid a watch list (black list). Many alterations in this area of the passport, however, have revealed that many forgers do not understand the fundamental principles of how different watch lists are constructed.

Special Light Examinations

A standard questioned documents tool in examination for alteration is ultraviolet light. As is well known, the light is useful in examining characteristics of paper stock, binding materials, and chemical (that is, imitation) watermarks,² but in passport examination it has an

²William C. Krueger, "Chemical Watermarks," unpublished paper presented at the 1979 Annual Meeting of the American Society of Questioned Document Examiners.

additional specialized role. There are certain passports, such as the one of Colombia, that have special undertints visible only under ultraviolet light. The purpose of these undertints is both to protect against total forgery and to aid in the detection of alteration.

Infrared illumination is also a standard questioned documents procedure. In addition to its most common uses, infrared is particularly helpful in detecting photograph substitution. In one case of a totally forged passport, the forger neglected to print a short notice in the space over which the photograph was placed. This oversight was readily detected with infrared.

There are numerous advanced questioned documents techniques that can be applied to passport examination, but it is not the function of this article to comment on all questioned documents procedures. There is, however, one new type of lighting that does have application.

A hand-held viewer that bends the angle of light has come into common usage over the past ten years. Initially, one of the common uses of this viewer was to read the security text placed in the plastic coating of drivers licenses [5]. Under normal light, only the regularly printed text is visible. With the aid of the viewer the special retroreflective security text becomes legible. Since the exact process of creating the security text is a complicated technological procedure, it is not probable that it could be duplicated by a forger. In the passport area, the retroreflective security text visible with a viewer has been incorporated into certain passports. The machine readable United States passport has this feature in the plastic sheet covering the photograph [6].³

Watermark Examination

One of the simplest ways to examine a page of a passport for the authenticity of the paper stock is to check the watermark. This author has seen no criminal forgery that has come close to an accurate duplication of a well-designed watermark, since the process of making a watermark is both a question of significant financial expenditure and considerable technical skill [7].⁴

The most common techniques to forge watermarks have been drawing the mark with an oil base or citrus juice liquid, printing it in ink (often with an ultraviolet light reaction), or applying it chemically.

When a single page of a passport is held up to strong light, the watermark should be visible. Crude imitations of printed watermarks usually can be distinguished from the genuine because of their lack of quality, definition, and shading.

The most definitive way to authenticate a watermark is to compare it with the genuine after an X-ray exposure of each has been made. Imitations of watermarks, including chemical watermarks, will not photograph under X-ray.

Files in Support of Examinations

Files are an integral part of passport examinations; and, as such, they never can be too complete. It is only a question of properly allotting available manpower versus the case needs of the situation.

Passport files can show information such as the date when specific passports were introduced, or tables concurring serial numbers with the dates and places of document issuance.

On the other hand, the document examiner cannot build a library of specialized informa-

³Machine readable passports were introduced in the United States in March 1981, and they included retroreflective lamination.

⁴Watermarks are also a primary security feature in many foreign currency notes. As Interpol counterfeiting reports indicate, actual paper preparation with forged watermarks is also rare in currency. For watermarks on forged identity cards see Ref 7.

tion for the infrequent passport question that he might encounter. He must, therefore, query the appropriate governmental administrative body that does maintain the needed information.

Analytical Information

The record of travel in the passport is one of the most important aspects of the document. The record is not only a valuable tool in reconstructing the past whereabouts of a passport bearer, it is also helpful in gaining an insight into his future travel plans.

Not every country stamps the passport of every arriving and departing passenger. There are, however, usually enough cachets to get a fair estimation of where a traveler has been. For the document examiner looking at a passport it is critical to know that certain travelers have placed forged cachets into their passports to give their fraudulent documents the appearance of prior use.

Sometimes forged visas, permitting entry of a person into a country, are placed into a passport. Examination of these passport entries is generally the function of governmental border control authorities, and not the general document examiner.

Just as some forgers try to add cachets in a passport, others try to hide the cachets in the document. This is particularly true of visa refusal, entrance denial, deportation, or customs obligations notations [8].

Types of Forgery and Fraud

In examining any passport, the document examiner should be aware that there are several different types of forgery and fraud that might be encountered: (a) the totally forged passport, (b) the genuine passport with forged pages "added," (c) the genuine but altered passport, (d) the "notional passport" of a nonexistent country (such as the "Planetary Passport" which the author of this article purchased for \$10 by mail), (e) the notional edition of a real country's passport, and (f) genuine passports issued to illegal bearers based upon fraudulent support papers [9].⁵

Conclusions

When a document examiner examines a passport he must remember that he is dealing with a document that has its own peculiarities of usage . . . and of fraud.

The general techniques of questioned documents examination are always valuable, but the examiner must not neglect the special aspects of passports.

⁵ This is the most common passport fraud according to Ref 9.

References

- [1] "Etude concernant les passeports," in *XVI Session*, Interpol, 1947.
- [2] "Fabrication des passeports et cartes d'identite," Interpol Report, 13 June 1968.
- [3] Hofmann, V. W., "Die Untersuchung auf Pass-Verfaelschungen mit einfachsten Mitteln," *Kriminalistik*, Vol. 16, No. 5, May 1962, pp. 208-214.
- [4] "Seizure of Counterfeit Swiss Passports," Interpol Report, 31 July 1979.
- [5] Horn, J., "Indiana's Document Security Lamination System," *FBI Law Enforcement Bulletin*, Vol. 48, No. 10, Oct. 1979, pp. 22-25.
- [6] Mathyer, J., "The Problem of Security in Identity and 'Authorization' Documents," *International Criminal Police Review*, No. 336, March 1980, p. 66.

- [7] Clement, J. L., et al, "Counterfeit Watermarks on False French Identity Documents," *International Criminal Police Review*, No. 334, Jan. 1980, p. 2.
- [8] Levinson, J. and Perelman, B., "Examination of Cachet Impressions," *Journal of Forensic Sciences*, Vol. 28, No. 1, Jan. 1983, pp. 235-241.
- [9] U.S. Department of State, *History of the United States Passport*, Government Printing Office, Washington, DC, 1976.

Address requests for reprints or additional information to
Jay Levinson, Ph.D.
Criminal Identification Division
Israel Police National Headquarters Bldg.
Jerusalem, Israel