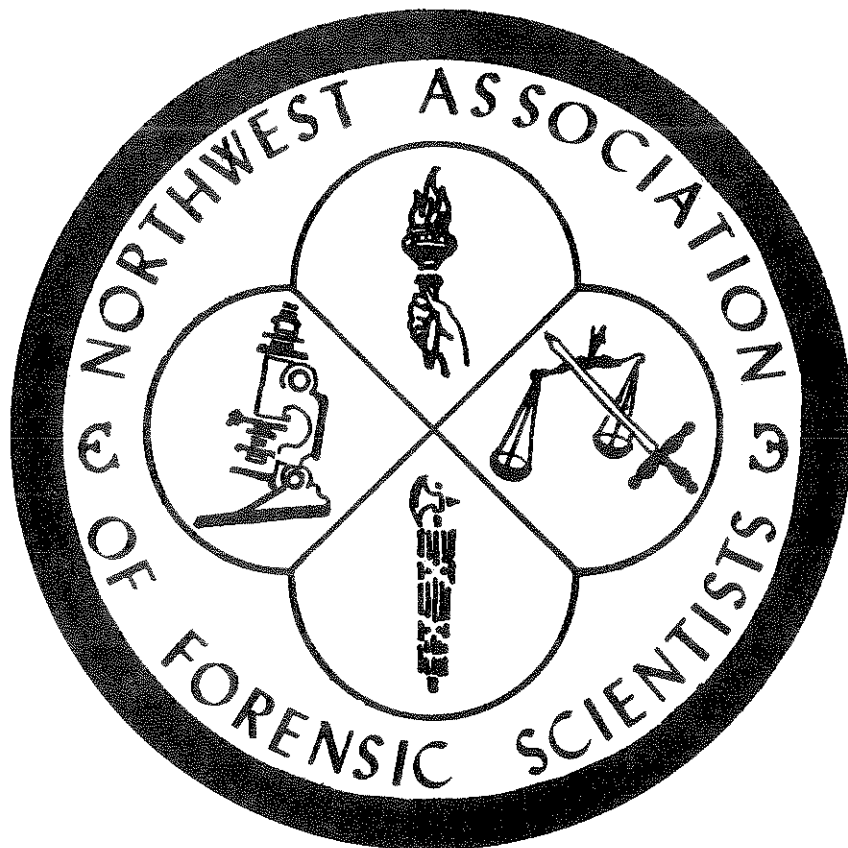


THE NEWSLETTER of



Dec. 1985

Vol. 11 No. 4

NORTHWEST ASSOCIATION OF FORENSIC SCIENTISTS

Executive Committee

President WALLY BAKER
 President Elect BETH CARPENTER
 Secretary-Treasurer LIONEL TUCKER
 Executive Committee Member-at-Large DARYL BRENDER
 Past President RICHARD BROOKE

COMMITTEES

Membership ROBERT SAGER
 Publication ROGER ELY
 Historical BRAD TELYEA
 Technical Advancement RICK GROFF
 Continuing Education WAYNE JEFFREY

UPCOMING MEETING

SPRING 1986

April 29, 30, May 1, 2

INN OF THE SEVENTH MOUNTAIN

BEND OREGON

For further
information
contact:

Mike Howard
 Oregon State Police Crime Lab
 375 N.E. Franklin Street
 Bend, Oregon 97701
 (503) 388-6150

PRESIDENT'S MESSAGE

The meeting in Seattle was a great success. Many thanks to Kay Sweeney, Don MacLaren, Robin Busoletti, Cindi Jay, and all others involved in organizing the meeting. A special thanks goes to Piet de Jong and Chesterine Cwiklik for the statistics and hair workshops.

The Spring 1986 meeting will be in Bend, Oregon on April 29 - May 2. Mike Howard is the program chairman. Mike is considering some sort of workshop, possibly in the firearms field. If you have any ideas or suggestions, or plan to present a paper, please contact Mike at the earliest opportunity.

As I indicated in the August newsletter, vacancies on three standing committees would need to be filled soon after the conclusion of the Seattle meeting. Several members expressed an interest in chairing these committees, which makes my job of appointing the chairpersons much easier. The new chairmen and their respective committees are:

Publications - Roger Ely, Kelso, Washington
Technical Advancement - Richard Groff, Boise, Idaho
Continuing Education - Wayne Jeffrey, Vancouver, B.C.

Anyone interested in assisting these people should contact the appropriate chairman. I feel that these people will give us good geographical balance from various areas in the Northwest, as well as the enthusiasm that "new blood" brings to any organization. I would also like to thank the past committee chairpersons, George Matsuda, Mike Grubb and Beth Carpenter, for their contributions to the NWAFFS in chairing their respective committees. Their efforts have not gone unnoticed nor unappreciated.

My priorities for the next year, with the assistance of the executive and standing committees, are to increase the amount of information disseminated through our newsletter, expand the reference library available through the Continuing Education committee, and attempt to have the results of proficiency tests reported to the participants in a more timely manner. I would also like to establish a new subcommittee of the Continuing Education committee which deals with forensic wildlife (not the kind that goes on in our hospitality room). Tommy Moore, from the Wyoming Fish & Game lab will be heading this subcommittee. Anyone interested in providing assistance should contact him at (307) 766-5628. In order to realize all of these goals, the members need to become more involved in the activities of the NWAFFS. One article submitted to the newsletter or one reference donated to continuing education goes a long way in improving the quality of our organization.

Last, but not least, I am pleased to announce that Dale Mann from the Seattle lab has been awarded this year's "General Section - AAFS Award". Dale has conducted research in several areas of arson examinations and presented his findings at regional and national meetings several times over the last couple of years. Congratulations, Dale. The award is well deserved.

I'm looking forward to serving as president of the NWAFFS for the next year. Hope to see you in Bend.



SECRETARY-TREASURER'S REPORT
 Fall Meeting 1985
 Seattle, Washington

Meeting was called to order by Richard Brooke. Minutes of the Spring 1985 meeting were adopted as published in the Newsletter.

I. Treasurer's Report

June 1985 through October 1985

| <u>Description</u> | <u>Debit</u> | <u>Credit</u> |
|---|--------------|---------------|
| Stamps - Seattle meeting | \$ 70.00 | |
| Advance, Seattle meeting | 300.00 | |
| Registration, Seattle meeting (two members) | 130.00 | |
| *Holiday Inn, Seattle meeting (expenses) | 4,859.59 | |
| Piet deJong; Per Diem (Seattle meeting) | 445.00 | |
| Service charge - checking account | 36.00 | |
| Funds - Dreyfus Fund | | \$ 5,238.00 |
| Fee - Piet deJong (Seminar, Seattle meeting) | 2,310.00 | |
| Interest - Checking account | | 40.90 |
| Dues collected | | 162.50 |
| Returned check - Denver meeting (Endorsement problems) | 849.72 | |
| Deposited check - Denver meeting | | 846.92 |
| Deposit - Proceeds, Seattle meeting | | 3,707.34 |
| Deposit - Registration, Seattle members | | 1,392.00 |
| Advance to Mike Howard - Bend meeting | 500.00 | |
| Sub Total | \$9,500.31 | \$11,387.76 |
| Funds forwarded from checking | | \$ 3,182.87 |
| TOTAL held in Dreyfus Fund and checking account | | \$ 5,070.32 |

*Includes Hospitality Room

II. Executive Committee Report - Rich Brooke

A. The N.W.A.F.S. books were audited and found to be in order.

B. A McCrone course in microscopy was discussed. Money was authorized by the Executive Committee to partially fund the course for ten members. The course will NOT be in conjunction with a regular meeting to be held in Spring 1986.

C. Election of officers was discussed. Issue to be presented to members at the Business meeting.

D. Money was allocated for printing cost for letterhead stationery, the cost of which should not exceed \$200.00.

E. The Vendors list should be updated automatically after each meeting. Responsibility lies with the program chairman.

F. Executive Committee recommended that Cindi and Chesterine be congratulated for all the work they have done, and voted to pay for their registration at the Seattle meeting.

G. Executive Committee recommends to the membership the following individuals because of their dedication to N.W.A.F.S. for the following positions:

Newsletter - Roger Eli
Continuing Education - Robin Bussoletti
Technical Advancement - Rich Groff

III. Historical (or Histerical, whichever you prefer) - Rich Brooke

No movement from this Committee. We do make a formal request for pictures taken at meetings--non-discriminatory, of course, or whatever turns you on--just be discrete.

IV. Continuing Education - Beth Carpenter

Details for the McCrone course will be forthcoming. In a nutshell, this is the proposal:

- A. Cost of course, one week - \$9,000
- B. Oregon Lab System will fund 50% or \$4,500
- C. Oregon Lab System will get 10 slots (which is only fair) out of 20 available.

D. Remaining 10 slots to be chosen from the rest of membership.

E. Candidates will be recommended to the Continuing Education Committee. Committee will make the final selections.

F. Cost to remaining 10 people - \$100 tuition. The N.W.A.F.S. will fund the rest, approximately \$3,500.

NOTE: We would remind members that we have books, films and cassettes for the asking to improve your lot in life.

V. Technical Advancement - Final report will be sent within a month to each lab. In the meantime, 5 serology and 5 drug samples are in the process of being prepared for distribution.

VI. Publication Committee - George Matsuda

George wants everyone to make sure that his or her name and correct address are printed in Newsletter. If there are any changes, please fill out an address change (no sex changes, please).

VII. Membership Committee - Robert Sager

The following actions were approved by unanimous vote of the members present:

A. Provisional member elevated to Associate status:

Jim Wolfe

B. Provisional members elevated to Regular (voting) status:

| | |
|------------------|----------------|
| John Amish | Richard Carter |
| Kathleen Ledford | Cindi Jay |
| Carla Noziglia | John Lundy |

C. Provisional members to remain Provisional:

| | |
|-------------------|--------------|
| Tom Barnes | Hiron Poon |
| Larry Dickinson | Victor Reeve |
| Martha Kerr | Ron Schiefke |
| Richard MacAlpine | Kevin Smith |
| Stefana Mazzega | |

D. New Provisional members accepted:

(Associate)

| | |
|-------------------|--------------|
| Maureena Dudschus | Delmar Price |
| Joseph Hickey | Benny Wong |
| Anthony Merulla | |

(Regular)

| | |
|--------------------|-----------------|
| Minoru Aoki | Stanley McGee |
| Jacqueline Battles | Thomas Netwal |
| Dorothy Boyer | Dona Poage |
| John Brown | Michael Scanlan |
| Bryan Callowhill | Nizar Shajani |
| Susan Carre | Alan Spanbauer |
| Everett Clary | George Taft |
| Thomas Hagney | Robert Thompson |
| Raymond Kusumi | Richard Ulrich |
| William Marshall | |

E. The constitutional requirement to attend at least one of six consecutive meetings was waived for one more year.

F. Three members removed from rolls:

William Martin, deceased
Steve Snider, resigned
Basil Travnikoff, retired

G. Election of officers:

President - Wally Baker
President-Elect - Beth Carpenter
Secretary-Treasurer - Lionel Tucker
Member-at-Large - Daryl Brender

VIII. New Business

A. Discussion of election process:

A number of stimulating procedures for election of officers were presented, among these were:

1. Using absentee ballots
2. Using secret ballots
3. Published names in Newsletter of people wanting to run for office; (that way you could nominate yourself or someone else).
4. Choose members to assist Membership Committee in the election process.

Finally, it was decided by vote to continue the way we are, since some of the above would require some constitutional changes; however, we want to encourage more member participation.

B. Future meeting sites:

Recommended and voted on are the following meeting sites:

| | |
|-------------|-------------------|
| Spring 1986 | Bend, Oregon |
| Fall 1986 | Boise, Idaho |
| Spring 1987 | Reno, Nevada |
| Fall 1987 | Vancouver, Canada |

See Newsletter for details for the Bend meeting.

Meeting adjourned at 5:30 P.M.

Continuing Education Committee

The executive committee approved 50% funding of a one week McCrone Basic Microscopy School. The co-sponsor will be Oregon State Police. This means NWAFS has 10 positions for the school.

The tentative plans are:

Date: April 21-25, 1986

Place: Camp Cascade (approximately 40 miles south of Portland)

Cost: \$100 for tuition plus expenses

Housing: Available at Camp Cascade (Dormitory set up with room and board for about \$27/day)

To Apply Contact: Beth Carpenter

Oregon State Police Crime Lab
1111 S.W. 2nd 12th Floor
Portland, Oregon 97204
(503) 229-5017

If more than 10 people apply, the selection for attendance will be made by the continuing education committee.

The "tentative" factor in these plans lie with the budget projection of the state of Oregon. The support has been approved by management but the state's financial projection is a couple weeks away. To get the information of the opportunity out to all members it is necessary to proceed with plans in this newsletter with the confidence that the state will remain flush. So, unless otherwise contacted the class will proceed as planned.

Wayne Jeffery from Vancouver B.C. has volunteered to chair the Continuing Education Committee. I would like to take this opportunity to thank you for your assistance and ideas over the past few years. Wayne will be maintaining the library materials. If you wish to return or check out materials contact Wayne.

Beth Carpenter

Any Northwest Association Of Forensic Scientists member that has any suggestions as to Research Projects needed and or Courses of Instruction to be given at the FBI's Forensic Science Research & Training Center should phone or write:

Roger Dingeman
Forensic Science Operations & Planning Committee - ASCLD
1111 S.W. 2nd. Room 1201
Portland, Oregon 97204
(503) 229-5712

The Southern Association of Forensic Scientists (SAFS) announces its 20th Anniversary Fall Symposium.

Date: September 10 - 13, 1986
Place: Auburn Conference Center, Auburn, Alabama
Contact: C.L. Rabren
Alabama Department of Forensic Sciences
P.O. Box 231
Auburn, Alabama 36831-0231
(205) 889-7001

The Program Chairman for this meeting is Ronald Singer, Jefferson Parish Crime Lab., 3300 Metairie Road, Metairie, LA 70001 (504) 832-2320

Sheriff's Criminalists needed in San Bernardino County \$2208-\$3268 monthly depending on experience. Gathers, preserves, examines and reports on evidence. Requires B.S. or equivalent in Criminalistics, Chemistry, Biochemistry or related field. Must pass rigorous physical, background investigation and be citizens; will become sworn personnel. Phone or write Dolores Hershman (714) 383-3598, San Bernardino County Personnel, 157 W. 5th Street, San Bernardino, CA 92415-0440. EOE/AA m/f/h recd 12-16-85

Source: Mike Rehberg, Laboratory Administrator
Iowa Division of Criminal Investigation Laboratory
Wallace State Office Building
Des Moines, Iowa 50319
(515) 281-3666
Position: Criminalist (Questioned Document Examiner)
Duties: Perform full range of document examinations
Education: Bachelor's Degree in physical or natural science or at least four experience in a recognized crime laboratory.
Salary: Beginning salary \$28,000
Note: Looking for document examiner certified by the ABFDE.
Contact: Mike Rehberg or Jerry Brown at the address or phone listed above.

ATF Arson Accelerant Detection Course - Revised Classes for 1986

The Bureau of Alcohol, Tobacco and Firearms will conduct two Accelerant Detection Classes in 1986 for state and local forensic examiners. The classes are scheduled for June 9-13 and July 14-18. Enrollment is limited to 10 students per class.

The one-week course, conducted at ATF's National Laboratory Center (NLC) in Rockville, MD, emphasizes hands-on laboratory analysis utilizing all of the sample preparation techniques in common use today for arson examination. Lectures and discussions cover classifying accelerants, developing your own analysis scheme, accelerant comparison techniques, use of analytical techniques other than gas chromatography, pre-analysis clean-up techniques and proper evidence handling.

The course has been updated to place even more emphasis on the examiner's most challenging problem...interpretation of data. An additional practical exercise has been added. Recognition of incendiary devices and components has also been included in the lesson plans.

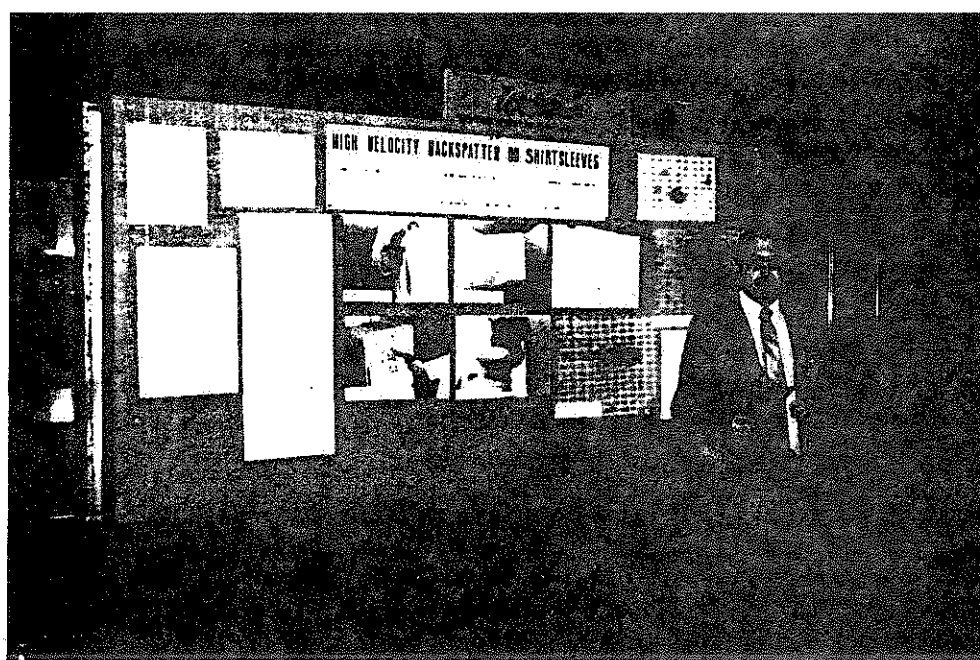
The course is designed for state and local chemists who perform, or will be performing, laboratory arson analysis. There is no tuition or registration fee, and all course materials are provided at no cost to the attendee. All transportation, lodging, and per diem costs must be borne by the local department or individual. Budgeting \$75 per day should cover lodging and meal costs. The ATF Laboratory will arrange a group rate for all selected students at a hotel convenient to the NLC.

Those persons interested in applying for the school can obtain an application from their ATF district office or by contacting Rick Tontarski at ATF NLC, 1401 Research Blvd., Rockville, MD 20850 (202)294-0420. The application deadline is March 3, 1986. Applicants will be notified of their selection in April.

1

2

3



ABSTRACT

HIGH VELOCITY BACKSPATTER ON SHIRT SLEEVES. James O. Pex, M.S., N. Michael Hurley, B.S., Charles Vaughan, B.S., Oregon State Police Crime Laboratory, 3620 Gateway, Springfield, Oregon 97477, (503) 726-2590

The identification of high velocity bloodspatter patterns in crime scene investigations has been a useful tool for many years. (This type of spatter is frequently observed in death investigations where a weapon has been discharged in close proximity to the victim). In a recent homicide investigation, high velocity backspatter was observed on the sleeve cuff of the accused. These minute droplets were discovered by microscopic examination and were limited in number. A study (limited to .22 caliber handguns) was initiated to determine if these were truly backspatter droplets or transferred blood produced from light contact with a bloody item. It was observed that the representative backspatter blood was limited to contact or near-contact shots. Also the addition of clothing over the target severely limits the return of blood toward the shooter and only minute droplets pass back through the bullet hole. Actual backspatter could be observed on the shooter's sleeve, both on the fiber tops and the creases between the fiber bundles on the leading edge of the shirt sleeve cuff. Conversely, transferred blood was observed only on the fiber tops. When high velocity backspatter is observed on the leading edge of the shirt cuff, there is a high likelihood that the wearer of the shirt was the shooter. This evidence has been useful in reconstruction of events in suspected suicides as well as possible homicides.

Presented as a Poster Paper at the 37th Annual Meeting of the Academy of Forensic Sciences, Las Vegas, Nevada, Feb. 12 - 15, 1985.

HIGH VELOCITY BACKSPATTER ON SHIRT SLEEVES. James O. Pex, M.S., N. Michael Hurley, B.S., Charles Vaughan, B.S., Oregon State Police Crime Laboratory, 3620 Gateway, Springfield, Oregon 97477, (503) 726-2590

INTRODUCTION The interpretation of bloodspatter by the OSP Crime Laboratory Division has been a useful technique in crime scene investigations for many years. Most commonly it is observed on floors, walls and ceilings at crime scenes and can be prima facie evidence in the reconstruction of the events. Proper interpretation of crime scene evidence can link the perpetrator to the scene.

High velocity bloodspatter from a gunshot wound is the result of energy transfer from the projectile and gases to the surrounding blood and tissue. This subsequent gas expansion and contraction creates a "backspattered" aerosol or blowback toward the weapon and hand. These small blood droplets are characteristically less than 1/8 inch in diameter. Their quantity will be dependent upon the muzzle to target geometry and the impact surface. An exposed skin area, such as the forehead or the hand, will create considerably more backspatter than a clothed or hair-covered area.

Casework observations and experimental work have shown that high velocity backspatter is not arbitrary but rather predictable and reproducible.

Much of the experimentation described is the result of a recent case investigation in which it was necessary to establish in the absence of a firearm, that a subject potentially could be linked to a shooting based solely on the subject's clothing and information derived from the victim (.22 caliber bullet and muzzle to target distance).

Experiments were conducted to consider this evidence in light of transferred blood, possibly from light contact with another bloody item. The amount of spatter, size of the droplets, its location on the weave and its general position on the sleeve were considered.

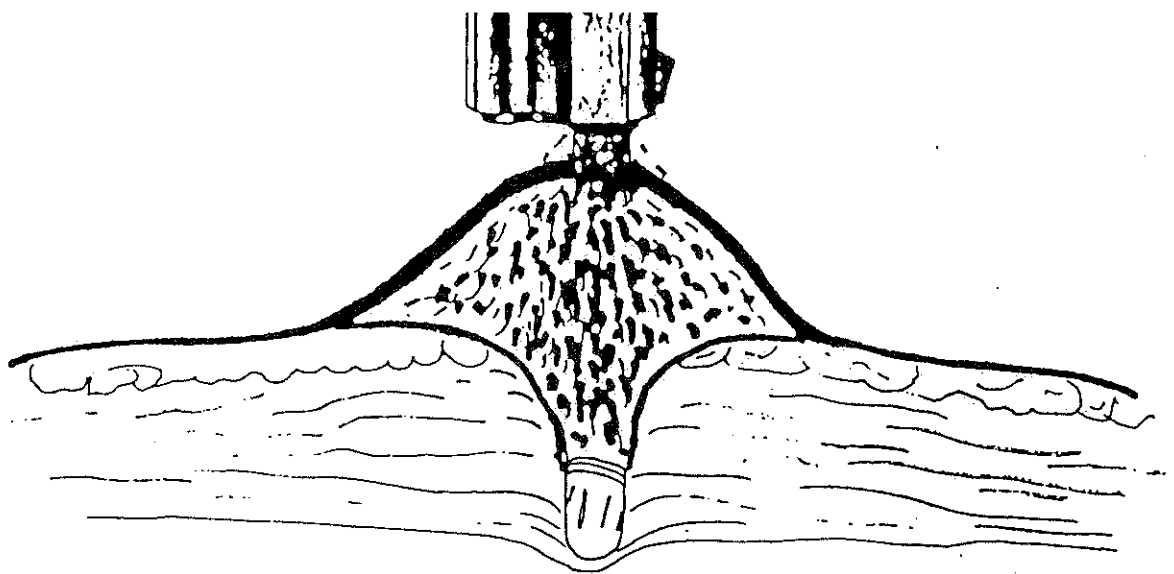
EXPERIMENTAL Simulated gunshot wounds were produced with a Ruger Mark IV .22 caliber semi-automatic pistol and a Ruger Bearcat .22 caliber revolver. A bloodsoaked sponge was placed inside a plastic bag, sealed and pinned to the front of a pea-gravel bullet trap. Test fires were performed in both contact, near contact and muzzle-to-target distances as far back as one foot. Similar tests were performed after the sponge bag was covered with varying layers of cloth.

The shooter wore long-sleeve shirts of cotton and wool blend. White lab coats provided excellent contrast for photographic purposes.

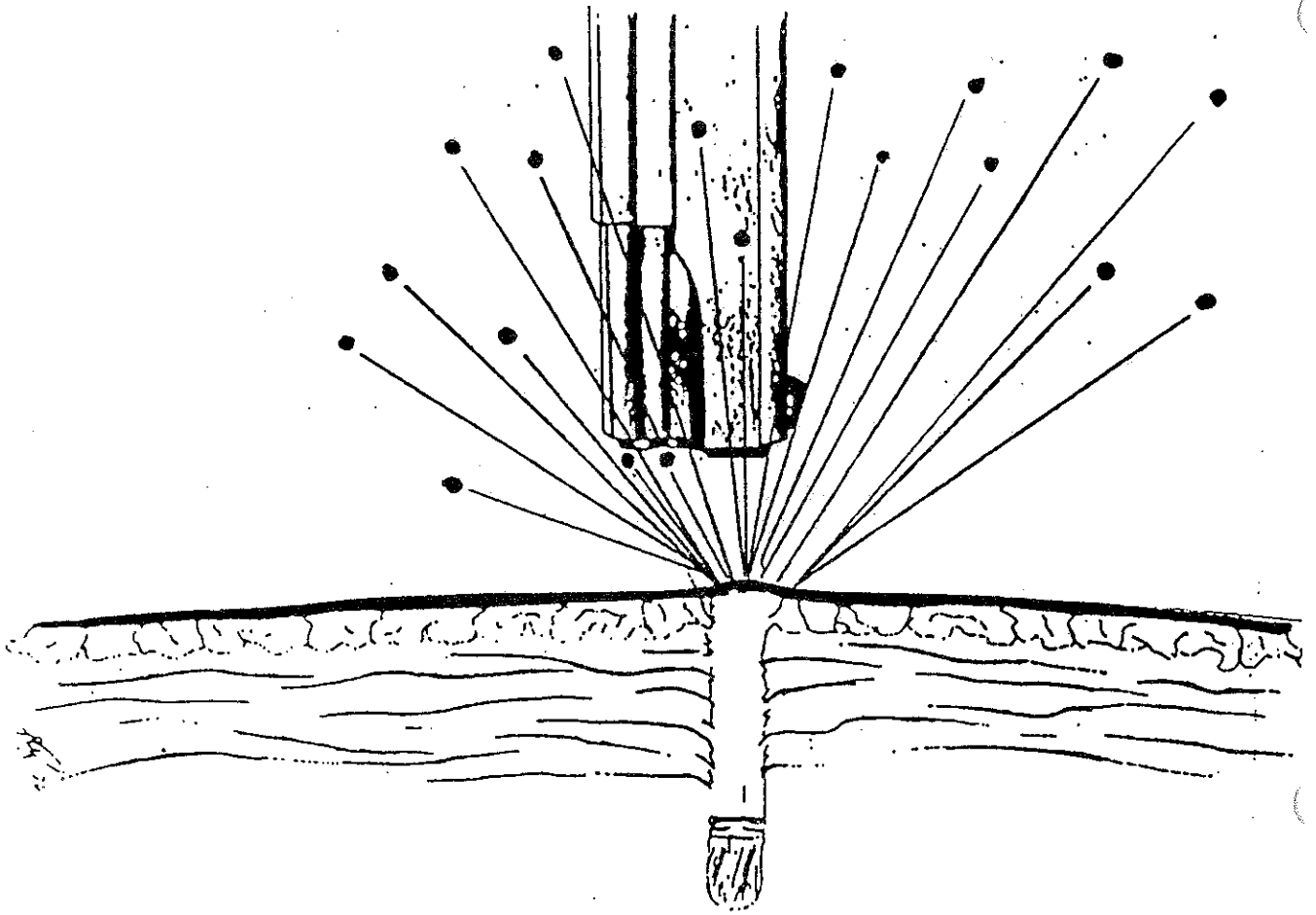
For transfer patterns, various bloody objects, such as clothing, wood pencils and knives were lightly touched to clean linen.

OBSERVATIONS

1. For .22 caliber weapons, backspatter is observed only when muzzle to target distances are contact to near contact.
2. A bloody sponge inside a sealed plastic bag would produce greater backspatter than a cloth covered bag. This duplicates observations made during actual gunshot crime scene investigations.
3. The type of target covering, if any, (clothing, plastic, etc.) greatly affects the amount of backspatter produced and observed. The thicker the outer layer covering, the closer the barrel must be to create the spatter.
4. The backspatter blood has not been observed beyond a distance of two feet when produced by a .22 caliber handgun.
5. Surfaces within two feet of the target and perpendicular to the blood flight path may exhibit a high velocity bloodspatter pattern. This surface may be the weapon, inside the bore, the leading surface of the hand and adjacent clothing.
6. Small blood droplets dry rapidly after deposition on the hand and become rigid. The elastic nature of the skin during movement loosens the droplets and they are lost within a short time. Any addition of water will quickly dissolve them and render the pattern uninterpretable.
7. The location of the backspatter will be affected by the angle of the muzzle to the target. An upward shot resulted in more observed spatter on the top of the sleeve. Conversely, a downward shot produced more spatter on the lower sleeve.
8. On colored garments the high velocity blood droplets may not be readily visible and thus require a careful microscopic examination to be observed.
9. Gunshot high velocity bloodspatter will strike a cloth object randomly with regard to weave or design. It may be visible on the inside, outside or leading edge of a long-sleeved shirt cuff.
10. Blood lightly transferred from an object to cloth will be observed microscopically on the top surfaces of the weave, rather than in the valley of the weave.



Tissue and capillary bed damage
 by force of rapidly expanding hot
 gas and bullet impact



Immediate collapse of the elastic
 tissues expells the rapidly cooling
 gas and the blood aerosol (backspatter)

DISCUSSION High velocity backspatter from a .22 caliber pistol or revolver can produce a pattern on a shirt cuff of a shooter in a contact or near contact shot. When present, this spatter can be differentiated from transferred blood through careful microscopic examination in the circumstances previously observed. Although it may be found as far up the sleeve as the shoulder, it is usually limited to the cuff or lower sleeve area (specifically the area near the shirt button). If the muzzle is pointed upward the spatter may be viewed higher up the sleeve. A downward pointed muzzle may shift the pattern toward the underside of the cuff. The observed pattern must not be discounted based on a limited number of droplets. The droplets may still be interpreted with a careful microscopic examination. The quantity of blood is usually insufficient for typing purposes and the relationship to the victim can only be inferred by the specific circumstances in which this pattern may have occurred.

It is recommended that the examiner attempt to duplicate the observed pattern utilizing a garment of identical fabric and the same weapon and ammunition, if available.

REFERENCES

1. MacDonell, H.L. Bloodstain Pattern Interpretation, Handbook published by MacDonell, 1982
2. Stephen, B.G. and Allen, T.B. "Backspatter of Blood From Gunshot Wounds - Observations and Experimental Simulation" Journal of Forensic Sciences, Vol. 28, No. 2, April 1983, pp 437-439.

NORTHWEST ASSOCIATION OF FORENSIC SCIENTISTS

Fall Meeting

Seattle, Washington

October 2-4, 1985

CALL FOR PAPERS

NAME Raymond A. Grimsbo, Ph. D. (cand.)

ADDRESS 2535 N.W. Upshur Street Portland, Oregon 97210

PHONE (503) 223-4266

TITLE OF PAPER Isoelectric Focusing of ACPI in Ultrathin Layer Agarose

TO BE PRESENTED BY Raymond A. Grimsbo, Ph.D. (cand.)

AMOUNT OF TIME FOR PRESENTATION 10 minutes

AUDIO VISUAL EQUIPMENT NEEDED slide projector

ABSTRACT: An isoelectric focusing procedure using an ultrathin layer agarose gel (ULAGIF) to focus red cell acid phosphatase is described. From extraction thru assay, the procedure takes less than ninety minutes. Bloodstains seven months old have been successfully characterized by this method.

CALL FOR PAPERS

NAME Raymond A. Grimsbo, Ph.D. (cand)

ADDRESS 2535 N.W. Upshur St. Portland, Oregon 97210

PHONE (503) 223-4266

TITLE OF PAPER The Plasminogen System

TO BE PRESENTED BY Raymond A. Grimsbo, Ph.D. (cand)

AMOUNT OF TIME FOR PRESENTATION 10 minutes

AUDIO VISUAL EQUIPMENT NEEDED slide projector

ABSTRACT: Plasmin is important in the regulation of the clotting process. Plasmin cleaves fibrinogen/fibrin and helps in the degradation of the fibrin blood clot. Plasminogen, a common plasma protein, is converted to plasmin through the action of plasminogen activator. Plasminogen, a codominately inherited marker, can be isolated and identified by isoelectric focusing in agarose, pH 5-8 with anti-PLG/coomassie BB R250/silver stain. From the available population studies, the degree of polymorphy makes plasminogen a desirable genetic marker in forensic applications.

CALL FOR PAPERS

NAME Pex, James O.

ADDRESS OSP Crime Lab, 1500 Valley River Dr.,

Eugene, OR 97401

PHONE 503-686-7843

TITLE OF PAPER Use of Microvettes in Forensic Serology

TO BE PRESENTED BY Pex, James O.

AMOUNT OF TIME FOR PRESENTATION 15 minutes

AUDIO VISUAL EQUIPMENT NEEDED Slide Projector

ABSTRACT:

Microvettes, produced by the Sarstedt Company, were found to be useful for rehydration of biological stains for forensic serology. The funnel-shaped tip was found to be ideal for retaining cloth and cotton swabs during extraction by centrifugation.

This device was also useful for reverse ABO typing with some improvement in sensitivity.

CALL FOR PAPERS

NAME DALE C. MANN

ADDRESS WASHINGTON STATE CRIME LAB, PUBLIC SAFETY BUILDING,

SEATTLE, WASH. 98104

PHONE 206-464-7074

TITLE OF PAPER MICROBIAL DEGRADATION OF PETROLEUM PRODUCTS IN SOIL

TO BE PRESENTED BY DALE C. MANN

AMOUNT OF TIME FOR PRESENTATION 20 minutes

AUDIO VISUAL EQUIPMENT NEEDED SLIDE PROJECTOR

ABSTRACT:

The effects of bacterial degradation on liquid petroleum products amended to soil was studied. It was found that effects could be observed in as little as three days under "optimum" conditions. Alteration to the petroleum products tested followed a reproducible pattern, with the aromatics lost first, followed by the straight-chain parafins, and finally (and minimally) the branched chain aliphatics. Methods of recognition and compensation for this alteration of petroleum products in arson casework will be discussed.

CALL FOR PAPERS

NAME John P. Wehrenberg

ADDRESS 3828 Lincoln Road

Missoula, MT

PHONE (406) 549-1549

~~TITLE OF PAPER~~ The Characterization of Mixed-layer Montmorillonite-illite
Clay Minerals by Fourier Transform Infrared Spectrometry

TO BE PRESENTED BY John P. Wehrenberg

AMOUNT OF TIME FOR PRESENTATION 15 minutes

AUDIO VISUAL EQUIPMENT NEEDED 35 mm projector

ABSTRACT: The clay minerals represent a major component of soils but they have been neglected by the forensic science community. The IR spectra of mixtures of pure clay minerals have been shown to be additive; however, there has been some doubt that the spectra of complex interstratified mixtures of several clay minerals are purely additive.

This study shows spectra of the most common of these interstratified clays, montmorillonite-illite, are additive in all ranges of composition and that the percent illite can be semi-quantitatively determined by the change of frequency of the Si-O-Si stretch band. Kaolinite can be determined quantitatively to less than 1% in these clays.

CALL FOR PAPERS

NAME Wayne K. Jeffrey

ADDRESS R.C.M.P. Forensic Laboratory

Vancouver, British Columbia

PHONE (604) 666-2045

~~TITLE OF PAPER~~ The use of H.P.L.C. in screening for acidic and neutral
drugs in forensic toxicology

TO BE PRESENTED BY Wayne K. Jeffrey

AMOUNT OF TIME FOR PRESENTATION 15 - 20 minutes

AUDIO VISUAL EQUIPMENT NEEDED slide projector

ABSTRACT: A method for the screening of drugs in the acidic and neutral reaction of biological tissue by H.P.L.C. will be presented. It will discuss the advantages of H.P.L.C. screening over present G.C. techniques.

THE IMPORTANCE OF ANTEMORTEM AND POSTMORTEM SAMPLES
IN SUDDEN SURGICAL DEATHS

Rick Morehead and Jim Hutchison

An unexplained, post-surgical death was investigated. Postmortem toxicological analysis revealed high concentrations of Desipramine. Antemortem blood samples were obtained to assess the possibility of recent overdose.

CASE REPORT

HYDROGEN SULFIDE DEATHS IN OIL FIELD WORKERS

Jim Hutchison and Rick Morehead

Two fatalities at a crude oil processing plant were investigated. Toxicological analysis of autopsy specimens revealed lethal concentrations of hydrogen sulfide (H_2S). Volatile hydrocarbons were also detected, which were compared to crude oil standards submitted from the same processing plant.

Montana Forensic Science Laboratory
Missoula, Montana

NAME George Johnston

ADDRESS Washington State Patrol Crime Laboratory

Seattle, WA

PHONE (206) 464-7074

TITLE OF PAPER The Green River Homicides - A review of the cases and
development of methadology

TO BE PRESENTED BY George Johnson

AMOUNT OF TIME FOR PRESENTATION 30 minutes

AUDIO VISUAL EQUIPMENT NEEDED slide projector

ABSTRACT: Since July 1983 a series of unsolved homicides involving prostitutes has occurred in the Seattle/King County area. One laboratory has handled most of the evidence that has been submitted. A discussion of the methods of examination of evidence and how they have changed, as well as an overview of the case will be presented.

CALL FOR PAPERS

NAME John Brown

ADDRESS Washington State Patrol Crime Laboratory

Public Service Bldg. Seattle WA PHONE (206) 464-7074

TITLE OF PAPER EPIILLUMINATION MICROSCOPY - SOME APPLICATIONS IN FORENSIC ANALYSIS

TO BE PRESENTED BY John Brown

AMOUNT OF TIME FOR PRESENTATION 30 minutes

AUDIO VISUAL EQUIPMENT NEEDED slide projector

ABSTRACT: In this laboratory we are increasingly utilising epillumination microscopy in the examination of evidence. It has been found particularly useful in the examination of paints and surface detail especially in the cases of opaque objects and smears. Examples of applications will be illustrated.

CALL FOR PAPERS

NAME Ed Suzuki

ADDRESS Washington State Crime Laboratory, Public Safety Building, Seattle WA 98104

PHONE (206) 464-7074

TITLE OF PAPER Direct Analyses Using DRIFTS (Diffuse Reflectance Infrared Fourier Transform Spectroscopy) I: Tablets, Capsule Powders and Powders

TO BE PRESENTED BY Ed Suzuki

AMOUNT OF TIME FOR PRESENTATION 30 Minutes

AUDIO VISUAL EQUIPMENT NEEDED Slide projector

ABSTRACT:

Fuller and Griffiths (American Laboratory, Vol. 72, October 1978) first demonstrated the feasibility of obtaining an infrared spectrum directly on an intact Empirin tablet using DRIFTS. We have found that several modifications of this method are necessary in order to obtain useful spectra for most other tablets. Applications of these modified procedures to the analysis of several tablets of forensic interest are presented, and the results are compared to those obtained by conventional means. The direct analysis of some capsule contents and other powders is also presented and discussed.

CALL FOR PAPERS

NAME Ed Suzuki

ADDRESS Washington State Crime Laboratory, Public Safety Building, Seattle, WA 98104

PHONE (206) 464-7074

TITLE OF PAPER Direct Analyses Using DRIFTS II: Polymeric Foams

TO BE PRESENTED BY Ed Suzuki

AMOUNT OF TIME FOR PRESENTATION 15 Minutes

AUDIO VISUAL EQUIPMENT NEEDED Slide projector

ABSTRACT:

Direct DRIFTS analyses offer several significant advantages for forensic examinations including requiring no sample preparation, being totally non-destructive, and generally providing more spectral information for characterizing and individualizing a particular substance. In view of these, various materials were examined to determine whether they are suitable for direct sampling. It was found that good quality spectral data are obtained for many types of polymeric organic foams. These foams include a variety of articles such as thermal insulation, packaging materials, furniture and garment fillings, carpet and other padding, sponges, etc. Several examples illustrating the direct DRIFTS analyses of such items are presented and discussed.

CALL FOR PAPERS

NAME Raymond Kusumi

ADDRESS Washington State Patrol Crime Laboratory

Seattle, WA

PHONE (206) 464-7074

TITLE OF PAPER Pigmented Coating

TO BE PRESENTED BY Raymond Kusumi

AMOUNT OF TIME FOR PRESENTATION 50 minutes

AUDIO VISUAL EQUIPMENT NEEDED Overhead projector, 2 slide projectors,
2 screens or one very large screen

ABSTRACT: The presentation will cover coatings in general and their many raw materials and function. Formulation and manufacturing of architectural finishes will also be discussed.

CALL FOR PAPERS

NAME C. Cwiklik

ADDRESS Washington State Patrol Crime Laboratory

Seattle, WA

PHONE (206) 464-7074

TITLE OF PAPER REPORT ON HUMAN HAIR SYMPOSIUM

TO BE PRESENTED BY C. Cwiklik

AMOUNT OF TIME FOR PRESENTATION 30 minutes

AUDIO VISUAL EQUIPMENT NEEDED slide projector or overhead projector

ABSTRACT:

CALL FOR PAPERS

NAME Rodney G. Gullberg

ADDRESS Washington State Patrol Crime Laboratory, Public Safety Building

Seattle, Washington 98104

PHONE (206) 464-7074

TITLE OF PAPER Washington's Infrared Breath Test Program

TO BE PRESENTED BY Rod G. Gullberg

AMOUNT OF TIME FOR PRESENTATION 30 minutes

AUDIO VISUAL EQUIPMENT NEEDED Overhead projector and screen

ABSTRACT:

The transition of a state wide Breath Test Program involves a multitude of factors. The State of Washington has recently developed a new computerized infrared breath test program centered around the BAC Verifier Datamaster Instrument. This paper will discuss the following aspects of the new program:

1. Brief program history.
2. Reasons for developing a new program.
3. Instrument evaluation and specification preparation.
4. Equipment selection.
5. Brief theory of infrared analysis.
6. Breath testing procedure.
7. Data collection and analysis.
8. Equipment demonstration.

This new breath test program will be the first of its type in the country. The computer interfacing provides both complexity and flexibility. The data received is expected to provide important information for law enforcement, traffic safety, educational and other interested groups. It is expected that most other jurisdictions will computerize and interface their breath test systems in the near future.

NWAFS

Fall Meeting

Name Raymond J. Davis

Address 507 Third Avenue, #1164

Seattle,

Wa. 98104

Phone 621-1264

Title of Paper "The Defense Expert. The view from Baker Street"

Presented by Raymond Davis

Amount of time for presentation 15 min

Audio visual equipment needed No

Abstract The role of the governments expert witnesses has been well defined over the years, creating uniformity throughout the criminal justice system. This unfortunately is not the case with defense experts. Theirs is a role looking for a job description. There is no uniformity of service or expertise among defense experts. This has caused a great deal of confusion and mistrust within the legal system. This mistrust will continue until defense experts define their respective roles in our adversary system of justice. It is essential that this information be provided to criminalists, judges, prosecutors, defenders and even law enforcement personnel. The purpose of this paper then is to provide you with the view I see from Baker Street. That of an expert witness assisting not hindering the judicial process.

CALL FOR PAPERS

NAME Roger A. Ely

ADDRESS Washington State Patrol Crime Lab, PO Box 888

Kelso, WA 98626 PHONE (206) 577-2087

TITLE OF PAPER The Use of Multiple Flash Exposures (Flash Painting) for
the Enhancement of Night Time Photographs

TO BE PRESENTED BY Roger A. Ely

AMOUNT OF TIME FOR PRESENTATION 25 minutes

AUDIO VISUAL EQUIPMENT NEEDED Kodak Carousel slide projector

ABSTRACT:

The use of flash painting to enhance night time photographs is not new. However, there seems to be a lack of awareness with law enforcement officers and crime scene investigators of the benefits of the technique. Methodology for producing photographs by this technique is presented with comments on the usefulness of the new faster films. Examples of practicals photographed by students will be displayed.

CALL FOR PAPERS

NAME Mark F. Kalchik

ADDRESS 6014 No. Cedar

Fresno, Calif. PHONE (209) 294-2982

TITLE OF PAPER Abnormal Cocaine Hydrochloride Spectra

TO BE PRESENTED BY Mark F. Kalchik

AMOUNT OF TIME FOR PRESENTATION 15 min

AUDIO VISUAL EQUIPMENT NEEDED ~~XXXXXXXXXXXX~~ 35mm Slide Projector


ABSTRACT:

When working with cocaine hydrochloride care must be taken when using highly polar solvents such as methanol and ethanol. They can interact with the cocaine molecular and thereby alter the frequencies changing the spectrum. The spectrum will revert back toward normal with heat, but will still retain methanol of hydration. This is a function of the hydrochloride and will not occur with the free base.

"THE MEANING OF THE LOGO"

The color scheme is in three parts: Gold meaning Science, Blue meaning Truth and Purple meaning Justice.

The four pictures of equal balance are The Scales of Justice, The Torch of Knowledge, The Microscope denoting Criminalistics or Forensic Science and The Fasces, the Symbol of Authority.

The Association's name is part of the Logo and the pharmaceutical symbol  denotes the Association as having scruples.

The Editor

THE NEWSLETTER

A Newsletter published by the Association dedicated to the:

1. encouragement of the exchange of ideas and information within the field of forensic sciences through improving contacts between persons and laboratories engaged in the forensic sciences;
2. stimulation of research and the development of new and/or improved techniques; and
3. promotion of the improvement of professional expertise of persons working in the field of forensic science.

SUGGESTIONS FOR CONTRIBUTORS

The Newsletter includes the following regular features:

1. Correspondence and inquiries (letters)
2. Methodological notes (bench top)
3. Abstracts of papers presented at NWAFS meetings
4. Short technical reports
5. Case reports
6. Employment opportunities
7. News of meetings, schools, workshops, training opportunities
8. Legal news
9. Editorials

Contributions should be titled, include author credits and any pertinent references. The contributions should be typed, single spaced, on plain white paper and compacted as much as possible.

Submit all contributions to the Newsletter Editor:

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Oregon State Police Crime Laboratory
1111 S.W. 2nd Avenue, Room 1201
Portland, OR 97204~~

Roger Ely
Washington State Patrol Crime Lab.
P.O. Box 888
Kelso, Washington 98104

The Newsletter is published four times a year. Contributions should be submitted by February 1, May 1, August 1 and November 1, each year.

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