



# NEWSLETTER

INTERNATIONAL ORGANISATION FOR FORENSIC ODONTO-STOMATOLOGY

## Nr.2

Vol.32 April 2005

### Index

Editor's Page	2
From the President	3
11-March 2004 Madrid Attacks:	4
August 2003 in Japan: "A tale from two cities" by Kenneth A Brown	6
Meeting of the American Academy of Forensic Sciences	8
McGill University's Forensic Dentistry Internet Course	10
Identification work after the Tsunami in Thailand	12
Call for the General Assembly in Hong Kong Thurs Aug 25 <sup>th</sup> 2005	14
Coming Events	15



Optimism, - a word to remember!

### **One man's loss is another man's gain**

Yes, it is admirable that you go to Thailand and work for weeks, identifying victims – working with decomposed bodies all day long. I really don't understand how anyone can do it. Oh, you get paid? Well “one man's loss is another man's gain...”they say with a laugh.

What is it with this innocent little expression that reaches ones ears every now and again – that hits me in the stomach and gives me bad conscience? It somehow gives me a feeling of guilt – am I prospering on innocent people's death? That is probably how the remark was intended. It seems an insignificant remark, but it contains an attitude that it is not right to make money when people die, especially not under dramatic circumstances. Are we vultures sitting on a fence waiting for people to die, so we can make more money? Should the work be based on volunteers perhaps, - idealistic people working for free?

Come to think of it, a lot of different professions depend on people dying to earn their income. The undertakers for example, I wonder if they hear this remark every day? Or the florists that provide all the wonderful bouquets of flowers for every sad occasion? Or the coffin makers and those who print the little leaflets you get in funerals... the diseased are their customers, and my impression is that they are met by the relatives with gratitude and respect for their profession.

I am certain that when people die in accidents, it is expected that the rescue work, the medical work and the identification work is taken care of by professional groups. If someone close to us were missing, we would like the work to be taken care of by experienced professionals and not by good Samaritans that might come along by coincidence. The forensic odontologists are a resourceful group of professionals and we should take pride in executing our work and receive our wages with equal pride, - especially considering the effort shown after the Tsunami where over 90% of the around 1400 identified victims so far, have been identified on dental evidence. This is serious business, - no laughing matter, I'd say.

Wencke Stene-Johansen [wenckesj@online.no](mailto:wenckesj@online.no)



Peaceful times again in Thailand. From the "James Bond Island"

## From the President

The tsunami identifications in Thailand take time. We have just been informed that it may be necessary with Norwegian dentists there until Christmas. One of the reasons may be slow comparisons because it is not easy to find the correct person matching a specific body. These matchings are made by using the Interpol ID sys program for search and comparison. The American forensic odontologists experienced the same using their WinID program after the Sept. 11, 2001. Even though they knew that the right person was in the file, it could be impossible for the computer to find him.

Two factors may to some extent contribute to this. The codes used have been constructed under guidance by dentists, but the result may not be optimal. The search sometimes does not function as one should wish. Both may be in our hands to change and should be carefully scrutinized.

The Interpol program ID-sys and also the WinID have a number of codes or abbreviation included in the system. These have come there without any discussion or authorization of any organization. We need to improve the codes - they should be simple and easy to learn. One letter per code should be enough and there should be only one code for each separate condition. The coding system need not cover all conditions and for special situations the description can be given in full text. Codes especially designed for forensic odontology and search purposes may not be optimal for daily dental practice.

The codes in the ID-sys program have 3 letters per code. The idea may have been that the codes should be easy to recognize, but it does not really give the advantage of shorthand compare to one letter codes. Also there are too many codes in an attempt to be complete. This only makes the system difficult to learn. In addition, for some condition such as a missing tooth, there are many codes according to the reason for the tooth missing. In a forensic situation, when a tooth is not present it is usually impossible to know why. Since 1985 we have in Norway coded missing person's dental status according to a one letter coding system which has been entered in a hierarchical system (J Forensic Odontostomatol, 1997-15,5-8). The status of the tooth is given first and then the more specific details such as restoration material and surfaces covered. It is seems easier both to learn and to use.

Search in computers are facilitated by a hierarchical system of the information. This is especially so if a text retrieval system is used. The advantage may be that only those cases which fulfil all details are included in the search result. The search system in the ID-sys is constructed so that all possibilities are included. Thus many more possibilities are held open and the search may be less successful. If one knows that there is only one occlusal filling on a tooth we need not to include all other possibilities the way it is in the ID-sys program. To my disappointment this has not been improved in the new version of the program used in Thailand. **I will therefore urge forensic odontologists to be open to and search for better codes and search programs for computer aided identification programs.**

Tore Solheim ([solheim@odont.uio.no](mailto:solheim@odont.uio.no))

## 11-March 2004 Madrid Attacks:

### Identification procedures

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On the morning of March 11 ten bombs exploded in Madrid onboard four commuter trains, killing 191 people and wounding more than 1500, making it the deadliest terrorist attack against civilians in Europe since the Lockerbie bombing, and the worst terrorist assault in modern Spanish history.



The mortuary was located in Pavilion 6 of the Madrid Trade Fair (IFEMA), and the organization was planned according to the guidelines made by The Royal Society of Pathologists of UK, as a result of the Lockerbie attack in Scotland. The Centre of technical services installed panels to separate areas, on-line water, electricity, phone line points and access to IT networks. This contributed significantly to the speed with which the tasks of the forensic teams were carried out, allowing identification of 80% of the victims within 40 hours.

The forensic medical task focused on the following points:

- Establishing, in co-ordination with the forensic police, the identity of each victim.
- Establishing the nature of wounds and determining the cause of death of each victim, always with the priority objective of identifying victims as quickly as possible, and aiming to avoid or reduce as far as possible the uncertainty and anxiety experienced by families awaiting news about their missing loved ones.

With this aim, seven work areas were organised in each of which a team of three forensic doctors and three members of the scientific police (one being a photographer) worked. The forensic doctors carried out external body examination and gathered identifying data (general characteristics of gender, approximate age, hair colour, physical facial features, presence of scars or tattoos among others) and the injuries present, as well as samples for complementary analysis (for example chemical explosives analysis).

For well preserved bodies, fingerprints were taken. If fingerprints could not be taken, the bodies were passed to the area called Forensic Institute where the following tests were performed:

- X ray examination.

An X- ray zone was set up, where two forensic doctors and two technicians worked using portable equipment transferred from a nearby hospital. The main aim of the X- ray examination was to search for identifying elements such as osteosynthesis material.

- Anthropological and odontological study.

Two teams were formed to study this type of corpse, each of which comprised an anthropologist, two odontologists and an assistant. The staff of these teams comprised specialist forensic doctors, Legal Medicine professors from the Complutense University, who were experts in anthropology and odontology and forensic police members. This team proceeded to obtain data on the physical profile of the corpse (sex, approximate age) and dental identification elements, including intraoral X rays. In all cases studied in this area Interpol Disaster Victim Identification post-mortem forms were filled out. Sample taking for DNA analysis by the Madrid National Toxicology Institute.

Body parts were placed on a table to be matched to the corpses from the same attack scene. Those that could not be matched were deposited, together with the smaller remains, in bags called “zero bags” for subsequent taking of DNA samples.

Having obtained the post-mortem data, these were compared with ante mortem data supplied by the police to establish identification. All the information gathered was shared between forensics and police in order to officially establish identity and fill out the corresponding documentation. Results were sent to the court where a court authorisation was produced before delivery of the body to relatives. The identification work (except for cases depending on DNA analysis) was completed at 7.30 am on Sunday 14 March.

Of the total 191 fatal victims:

- 145 (roughly 76%) were identified through fingerprints, as the majority of the bodies were not seriously destroyed. This was possible mainly due to the fact that in Spain the police have on their National Identity Document files the right index finger print of all Spaniards and resident immigrants.

- The remaining 46 cases, 15 (8%) could be identified based on a group of elements from examination of their clothing and personal effects, the presence of tattoos, medical details such as prior operations undergone, dental data, and direct final recognition by relatives. This fact was especially meaningful for relatives as at the time there was public criticism over failings in identification work of Spanish military personnel killed in an air crash in Turkey (the so-called Yakolev-42 case).

In this respect I must note that dental ante-mortem data available was highly insufficient (only in five cases), lacking prior dental records such as charts and dental X rays, which without doubt limited the possibility of immediate identification in some cases, even when these showed quite specific dental work. The WINID-3 program was used for post-mortem data, although we were not able to compare with ante-mortem dental files for the above mentioned reason. So, I think it would be of great interest to involve forensic dentists in the ante-mortem teams, asking for and searching the most complete dental files, even establishing a direct contact with dental surgeries or professionals who treated the persons that are being looked for.

- The remaining 31 cases, the corpses in the worst state, were identified using DNA techniques.

Complete autopsies were not carried out except in very few cases, as external examination in the great majority of cases enabled determination of the causes of death. It is possible that performing complete autopsies could have provided us relevant data of interest in the Forensic

Pathology area, but as I have said, given the characteristics of the disaster, our prime objective at all times was to identify the victims.

Nevertheless, in development of mass disaster teams in Spain, what is most lacking is our definition and integration of the forensic role. Spanish law regulates civil defence capability in rescue, medical and security performance, but in no way the forensic area. Recognition of this area and its integration in mass disaster plans would enable establishment of routines in forensic tasks, hence eliminating improvisation and making co-ordination between the different teams involved easier in general, and the task of body identification in particular more straightforward.

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## August 2003 in Japan: “A tale from two cities” by Kenneth A Brown

During the month of August 2003, there occurred in Japan two events which held special significance for forensic odontology and DVI worldwide. Both were ironically linked and both involved the name “Suzuki”.

The first of these was the anniversary on August 12<sup>th</sup> 1985, of the crash on Mt. Osutaka, Gunma Prefecture, of Japan Air Lines B747 flight JL123 en route from Tokyo to Osaka carrying a total of 524 passengers and crew. Remarkably, four persons survived the crash while 520 were killed. Twelve minutes after take-off from Haneda airport, while still flying over Tokyo Bay, the captain had suddenly experienced difficulty in steering the aircraft, and radioed Haneda control for permission to return. However, he was unable to complete the turn-around, but, to his great credit, he managed to keep the aircraft flying for another 30 minutes before it crashed. This remains the largest single aircraft disaster in the history of commercial aviation. The serial number of this aircraft was JA119.



The second event took place in Shinjuku, Tokyo at 7.00 am on August 28<sup>th</sup> 2003, with the death after a long illness of Emeritus Professor Kazuo Suzuki, the founder in 1964 of the Department of Forensic Odontology at Tokyo Dental College. This Department was the first in Japan and Professor Suzuki remained its Head until his retirement in 1992. He was widely known throughout Japan and in many other countries as a leading exponent and passionate promoter of forensic odontology. Under his leadership, his department undertook a vigorous programme of research which included exploring new methods of identification incorporating forensic anthropology with forensic odontology, an innovation which proved of particular value in disaster victim identification. By 1985 its reputation for success in identification in numerous air disasters in Japan and other countries was such that it was inevitable that Professor Kazuo Suzuki should be called upon to undertake the mammoth task of identification of the victims of the crash JAL flight JL123. It is to their great credit that, despite the enormous extent of the fragmentation of the aircraft and

the bodies of the victims, his team successfully identified 518 of the 520 dead – the highest measure ever achieved in air crash investigation to date. The cause of the disaster was recalled in the English edition of *The Yomiuri Shibun* of Saturday, August 9<sup>th</sup> 2003, and goes back to June 1978. At that time, Norikatsu Suzuki was an aviation accident investigator working at Osaka International Airport and was asked by his superior to examine a Japan Airlines Jet “that has fallen on its behind”. When he went to the hangar, Suzuki saw a jet that was resting on its tail. He observed that the bottom of the rear pressure bulkhead was damaged. He took pictures of the damaged area and reported his findings. He noted its serial number JA119.

The aircraft was later shipped to Haneda Airport for repair by Boeing Company which replaced the entire bottom half of the rear pressure bulkhead. The investigation team that evaluated the repair was lead by Susumu Tajima. Years before, Norikatsu Suzuki was a novice investigator at Chofu Airfield in Tokyo under the mentorship of accident investigator, Susumu Tajima. Both had subsequently worked together at Haneda Airport. Suzuki remembers Tajima “as a hard worker and a devout employee who never acted overbearingly toward airline officials when inspecting aircraft.” It was later determined by the Transport Ministry that Boeing had deviated from its repair protocol, and incorrectly connected the tail segment to the main fuselage. This error was not discovered upon reading the repair logs or making an external evaluation of the tail area.

Seven years later, metal fatigue-induced cracks around the incorrect fitted tail assembly resulted in its detachment under load over Tokyo Bay, and the tragic disaster on Mt Osutaka. The detached tail section was subsequently recovered from the Bay and examination confirmed evidence of metal fatigue. In April 1987, the prefecture police questioned Tajima for several days at the Metropolitan Headquarters. Following his interrogation, Tajima told Suzuki “The officer banged the desk and said “520 people were killed by the accident and you still think you have no responsibility?” I was shocked. That hit me really hard.” That night Tajima went home and killed himself by drinking a deadly cocktail of agricultural chemicals. He was 57.

Subsequently, Tajima and three other accident investigators were indicted on charges of criminal negligence. Later, but sadly for Tajima, prosecutors determined that it was “impossible for the investigators to have discovered the error in the repair.” In 1991, on August 12<sup>th</sup>, the sixth anniversary of the accident, Norikatsu Suzuki climbed Mt. Osutaka. He felt he needed to climb it “for Tajima”. Until then, he felt no accident investigator would have been able to go anywhere near the site of the crash. He climbed again in August 12<sup>th</sup> 2003 as he has done each year since 1991. It is his tribute to Tajima, his friend and mentor – and also to those 520 persons who died there together on that day in 1985.

Tajima’s widow lives alone now in the family home in Saitama prefecture. She is 72 years old. When asked about Norikatsu’s determination to climb the mountain again in 2003 she said, “I am glad there is someone out there who still cares about my husband”. Then, in a more sombre tone she added, “I think what pained him the most was not the attempt to blame him for the tragedy, but that such an immense tragedy occurred. The suffering that the victims’ families have gone through is immeasurable. August 12<sup>th</sup> will always be a painful day for me.” And thus, August 2003 – two events in Japan, each involving the name of Suzuki, and linked by a terrible human tragedy with relevance for all time.

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## Meeting of the American Academy of Forensic Sciences

New Orleans Feb 21 to 26, 2005



This yearly meeting is also the venue of the American Board of Forensic Odontology. One day is devoted to the American Society of Forensic Odontology. It had only invited speakers and was concentrated on “The scientific evidence and the testimony in court”. Good but general discussions were given. The emphasis was on tooth marks and it was claimed that the scientific basis for the analysis has never been established.

Paul Giannelli, a law professor from Case Western Reserve University talked about the admissibility of the scientific evidence. He said we need legal standards and there are a number of tests (Frye, Daubert and Relevancy) which may be applied before evidence can be allowed to be presented in court. This is in contrast to the conditions *ex in* Norway where we never have a discussion about admissibility. All evidence is allowed, but it is up to the court to decide how much they will rely upon the evidence. The difference is perhaps due to the fact that here the expert is the guide of the court and not attached to any of the parties. It is of course more important that certain standards are followed under the adversary system – otherwise almost anything can be given as evidence in court if the “expert” is paid enough. It is difficult to protect the court against this and the lecture was a discussion of the different tests and how valid they were.

Giannelli continued to talk about the “Abuse of Forensic science”. The report concentrated on laboratories and the accreditation of a laboratory was considered important. A number of cases of misconduct of justice were reported because of abuse of scientific evidence. He also emphasised the importance if two experts work on the same case that they should not know about each others results. In Norway the rule is that experts work together on the case and have to agree upon the conclusion. Different juridical systems may be the reason. He also point at the importance of exact lab notes which could be referred to and that the standards used should be published, preferably on the Web. He also said that for 150 \$ you can be an expert in anything.

In the afternoon the topic was “Crime scene processing for the forensic odontologist”. It is rather seldom forensic odontologists go to crime scenes, but if it happened it is good to know a little about what you can do and what you should not do.

**Two days of the meeting in Forensic Sciences comprised a forensic odontology section with short reports.** One day was more or less devoted to identification and one day devoted to tooth marks. Kenneth Aschheim from New York reported on improvements of a filter program to be used with the WinID program to improve the search facility. The WinID program used in America has the same difficulty with search as the Interpol DVI system



program. During the construction there has not been adequate focus on the possibilities. Then when this is discovered measures has to be taken for improvements.

Susan Anderson from Pennsylvania recommended universal standards for recording the dental conditions for a patient. She recommended this to be based on the WinID codes.

James Mc Givney from Missouri recommended a system for identification based on the status for interproximal surfaces. These can be detected easily in bite-wing pictures and should constitute the bases for quick identification in mass disasters. The system may sound nice, but experiences from the tsunami identification show that one must use all available information in the identification. To rely only upon the interproximal surfaces might result in a number of persons not identified by dental means.

John Carson from West Virginia reported on a positive identification based on visual enhancement of the pulp chamber on radiographs. Software called Forensic IQ used for 3 dimensional pictures was used. A case illustrated this. An 18 year old boy died after a car accident with subsequent fire. Conventional radiographic comparison did not produce clear evidence of the identity. When ante - and post mortem radiographs were compared after being treated by Forensic IQ the identity could be established. This is an interesting technique for difficult cases.

George Szilagyi from Hungary talked about forensic odontology work in Kosovo for UN. He had participated in the examination of 368 cases. It was noted that they did not use the Interpol form or computer program. Only a simple odontogram protocol was used. Also a special sort of abbreviation was used and the authorities were not interested in age estimation. When the material may be sparse as in Kosovo, age estimation is almost the only thing a forensic odontologist can do and therefore in my mind most important.

Guy Willems from Belgium reported on the tooth colour as a possible indicator of age. He had used a spectrophotometer to measure the colours as chroma, hue and value recordings. Both extracted teeth and teeth in vivo were examined. A correlation with age of  $r=.67$  to  $.69$  was calculated. This is not as strong correlation as others have found, but it agrees with my unpublished findings using the same parameters. It is also possible that he did not study different tooth types separately.

Cynthia Brzozowski from Missouri had examined the reproducibility of the Adobe Photoshop overlay technique using the Win Bite Software. Based on a centre registration of the teeth the angle and distance between the teeth was measured and compared to the models it was based upon. The variation between different methods was 1 to 1.5 %, but between individual examiners up to 2.5%. Thus the examiner - and not the technique - is most decisive.

George Gould from Texas had made a test of 9 bites in clay and 1 in skin and it was sent to a number of examiners together with 10 sets of models of suspects. The examiners were divided in more experienced and less experienced. The conclusions used were "identity with reasonable medical certainty, very probable, possible, inadequate material, improbable and excluded". Funny enough the more experienced made more mistakes than the less experienced examiners. The error rate was given to 15 percent.

Richard Souviron from Florida talked about bite mark evidence as Junk science or "Rocket science". The background was an article in the Chicago Tribune where it was claimed that

the result of tooth mark examination was wrong in 2 out of 3 cases. Several juridical professors also have described bite mark analysis as junk science. In the US there are a number of cases where the experts for the defense have said that the defendant could be excluded from having made the bite, while experts for the prosecution have said the defendant indeed did the bite. Also a number of suspects have first been sentenced on the bases of analysis of the tooth marks and later have been shown to have been innocent. Dr Souviron feel that bite marks can be used to show certain facts and that they are best when a suspect can be excluded. It is more difficult when he cannot. Importantly he says that the opinion of one forensic odontologist should always be supported by an independent second forensic odontologist. This is the system we always use in Norway also in identification cases.

Sherie Blackwell a statistician from Australia talked about problems with human bite mark analysis. She said it was an extremely contentious subject and that dentists tended to see what they wanted to see. One could extend that further by saying that they do not see what they do not want to see. A test was done by using 40 models of human dentition and 40 wax bites which were compared. In 15 % of the cases a non-matching dentition could not be distinguished from the true match. Thus the chance of convicting an innocent person based on this material was 15 %. In Melbourne they are working with a three-dimensional model using the 3D-Rugle software. It is not clear if this system was applied in these cases.

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## McGill University's Forensic Dentistry Internet Course

McGill University's forensic dentistry course is unique in the world. It is the first distance learning course offered on the internet that combines theory to practice. Dr. Robert B. J. Dorion associate professor at McGill and Director of forensic dentistry at the famed Laboratoire de sciences judiciaires et de médecine légale (LSJML), Ministry of Public Security for the province of Quebec in Montreal is the course director.

<http://www.msp.gouv.qc.ca/labo/>

**The course objectives are to provide theoretical and practical experience for those interested in forensic dentistry as well as to convey a level of education, knowledge, training, and experience in partial fulfilment of requirements for board eligibility for the American Board of Forensic Odontology <http://www.abfo.org/qualific.htm>**

Inaugurated in September 2004, the course is set up in modular form. Each of the first three modules is seven weeks duration at different times in the calendar year. Modules 4 and 5 are each one-week intensive hands-on autopsy, identification and bite mark analysis practicum on wet and dry specimens at the LSJML.

A registrant who has successfully completed the time requirements, theoretical, analytical, practical, assignment, and examination components of a module receives a certificate attesting to the completion for that module. Those having successfully completed all five modules are granted a certificate of training in forensic dentistry from the McGill University's Faculty of Dentistry (<http://www.mcgill.ca/dentistry>) and <http://www.mcgill.ca/dentistry/forensic/>.

Course material, lectures, correspondence as well as the compulsory two-hour online chat every week during a module is conducted in English. The online chat at a predetermined time

with fellow registrants and with the course director, discuss the previous week's reading and practical assignment.

**Course applicants must possess a DDS, DMD or equivalent degree from a recognized academic institution as well a current and valid license to practice dentistry.**

The course content includes:

- Body identification, dental identification methods/techniques: osseous/dental/soft tissue.
- Forensic radiography, standard and digital forensic photography special methods/techniques: SEM, DNA, etc.
- Post-mortem dental charting, ante and post-mortem records, dental nomenclature and dental comparison. Report writing: orientation, comparison
- Mass disaster management, computer hardware and software. Interaction with other forensic disciplines, bite mark evidence, child, sexual, geriatric/elder abuse
- Bite mark recognition, bite mark evidence: terminology, diagnosis, victim/suspect, collection of bite mark evidence, bite mark impressions, scanning electron microscopy.
- Tissue specimens: preservation methods/techniques, histology, timing of injury and court order / informed consent.

Methods of comparison and techniques: Computer generated overlays, metric analysis, digital analysis, the courts and the judicial system, expert witness testimony, ethics and the forensic expert.

Course registrants must possess a notebook/portable pc compatible computer with appropriate specifications, a digital camera with computer downloading capabilities and a variety of software programs including Adobe Photoshop®, and high-speed internet access.

Dorion has limited the number of students in the first year. It is a time-consuming course with a weekly average involving 90 pages of reading, 10 hours of practical assignments and two hours of online chat. Dorion has recently published *Bite mark Evidence\** (Marcel Dekker, New York, 2005) the first stand-alone textbook on the subject. This illuminating reference compiles the expertise and recommendations of a team of 21 eminent specialists from the disciplines of forensic odontology, DNA analysis, pathology, and jurisprudence. It is generously illustrated with more than 700 black and white photographs and a 32 full-Color page insert that demonstrates the many facets of bite mark recognition, diagnosis, handling, excision, lifting, transillumination, storage, preservation, transportation, analysis, and comparison.



## Identification work after the Tsunami in Thailand

The most extensive international identification work ever, is taking place in Phuket, Thailand. Four months has passed since the Tsunami and it has been interesting to observe the progress from the early difficulties, the disagreements about the leadership, the uncertain initial fumbling in the dark on the edge of chaos. The DVI organisation has gradually become a smooth running enterprise with written routines and personell who knows their place and task in the process. It was a noticable change that had taken place from when I left Phuket after three weeks in January, till the end of March when I returned for another month of work.

In the Information Management Center IMC, placed about 10 km outside Phuket town, the ante mortem and post mortem departments were up to date on the information obtained on the site, as well as the AM information on the missing persons. There were however, 3683 bodies and only 2300 AM cases, which means that a lot of people have not been reptred missing. We found large variations in the way different countries register dental records, and their routines for radiographic recordings, which again resulted in large variations in rate of success from dental identification. 1419 victims are now identified.

Some of the 140 people working in the IMC, Phuket



The Interpol ID-sys computer program from Plassdata is continously improving according to the needs. This disaster has also been a great challenge for the development of the identification program, and there are still improvements to work on concerning the searching possibilities and capacity.

The comparisons of the AM and the PM information take place in the reconsiliation department. Searching is performed on specific dental information

and we have found that we have more success if we find an AM case with a certain amount of dental registrations and make a search in the PM register. When we find a promising match, we then request all information available on the AM and PM numbers. By going through all the pictures, x-rays and registrations, we make a conclusion and pass it on to the reconsiliation board where the final identification takes place.

At the end of my first visit to Thailand, we moved the body examinations to site 2, placed near the temple of Tha Chat Chai on Phuket Island just north of the Airport. The norwegian firm Normeca planned and set up the site consisting of three container units of 8 by 63 meters. Each unit was planned to give room for two full teams of fingerprintexperts, criminal technicians, forensic medical staff and forensic dentists. The official opening took place 26th of January. As expected we had some initial problems with electricity and water, but within days the work went rather well on site 2 and when I came back in March the site had changed into a well working Forensic Unit with resting areas, cafeteria with warm lunch served every day, showers and separate toilets for clean and dirty personel. Each of the 12 nations with teams working here, had their own tent for changing clothes and storing equipumnt.



The bodies were stored in frozen condition at -30 degrees Celsius in containers.

The site administration planned the preparation of the bodies for examination by thawing the right number of bodies for each day. 4 to 5 teams from different countries worked on parallel lines in three containers. About 50 - 60 bodies were examined every day.



Inside one of the three container units on site 2

Dental examination included photos in occlusal view of upper and lower jaw, as well as frontal view. Bitewing X rays + additional periapical x-rays of wisdom teeth for age determination and areas with prosthetic replacements, suspected rootfillings etc. For children periapical x-rays were taken for age estimation. Due to insufficient equipment and other initial problems, the around 2000 bodies that were examined just after the disaster, did not have a complete examination. X-rays and samples for DNA analysis, were not taken. It was decided to have these 2000 bodies go through “a final inventory protocol, FIP”. This was a re-examination where all possible information was collected on each body. Police, doctors and dentists worked together on one body at the time and went through all available information directly on the computer. Then we could see what was missing and complete the examination before the body bag was sealed for the last time. Many mistakes and insufficient registrations were found, so it was a well spent time to go through it all again. These re-examinations will be going on till the end of May/beginning of June. Site 2 will then be reduced to a station where the bodies have a last cheque before they are released and handed over to the authorities.

The experience we have achieved from the Tsunami identification work will be a valuable resource in the future. In my opinion it has taught us that in stead of starting examinations on

the ground without x-rays and proper facilities, it is better to start by numbering and photographing the bodies. That would secure the recognizable features and clothing of the body. Provide freezer containers as soon as possible, and store the bodies until the facilities are available and ready for a proper examination.

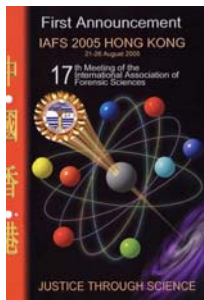


Good times too in Thailand. From Kata Beach

This report is only meant as an impression in the middle of the operation. Everyone who has been working in Thailand could probably write a book about the Identification after the Tsunami, and they would all be different.

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## Call for the General Assembly in Hong Kong Thurs Aug 25<sup>th</sup> 2005



According to the Regulations of 1987 we have so far the following agenda

1. Societies present or absent (apologies)
2. Approval of the agenda
3. President's report
4. Secretary/treasurer's report
5. Report of the Editor of Journal of Forensic Odontostomatology
6. Election of Executive and Auditor for the next three year period
7. Election of an Election Committee
8. Discuss and guide the new Executive in their policy and tasks
9. Discuss and decide upon supplementary instructions for the Ferdinand Strøm award (Norway)
10. Discuss and decide upon supplementary instruction of member societies (Norway)
11. Discuss the problem that forensic odontologists are not paid or paid differently at international operations (South Africa)
12. Discuss the problem of international cooperation in mass disasters (South Africa)
13. Any other business

\* Each member society is called to IOFOS General Assembly and will have one vote each. A few societies have indicated their official representative.

\* All interested forensic odontologists, member of a society or not are urged to meet and have the right to speak.

\* Information on the exact time and location will be announced later.

## Coming Events

27 June – 3 July 2005	IOFOS Course in Identification, one week in Oslo, Norway.	Contact: <a href="mailto:solheim@odont.uio.no">solheim@odont.uio.no</a>
21 – 26 August 2005	IAFS (International Association of Forensic Sciences) 17 <sup>th</sup> meeting in Hong Kong	Website: <a href="http://www.iafs2005.com">www.iafs2005.com</a> E-mail: <a href="mailto:iafs2005@govtlab.gov.hk">iafs2005@govtlab.gov.hk</a> Carl Leung <a href="mailto:carlleung@graduate.hku.hk">carlleung@graduate.hku.hk</a>
20 – 22 October 2005	IDEALS meeting in Florence, Italy	Contact: <a href="mailto:pinchi@unifi.it">pinchi@unifi.it</a> <a href="http://www.ideals.ac/congress/2005">http://www.ideals.ac/congress/2005</a>
15 – 16 May 2006	in Leuven, Belgium "The international symposium on Craniofacial Reconstruction"	Contact: <a href="http://WWW.MFO.BE">WWW.MFO.BE</a>
17 – 20 May 2006	in Leuven, Belgium "The international symposium on Forensic Odontology"	<a href="http://WWW.MFO.BE">WWW.MFO.BE</a>



Let's leave home for a while and meet!