The Invisible Light

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Editorial

A celebration of the life of Marion Frank "Frankly Speaking" took place in London on 19 May 2012. The organising committee had been Chaired by Margaret McClellan and there was a large audience of colleagues and friends, with some coming from very many miles. International speakers included A Stewart Whitley, Dr Tyrone Goh and Segun Adeyemi. Other speakers included Richard Evans from the Society of Radiographers and Prof Roger Berry who had been Professor of Radiotherapy at the Middlesex Hospital. The ISRRT was well represented by past-presidents and by Sandy Yule, the Secretary General, and there was representation from the Royal College of Radiologists and the British Institute of Radiology. The audience were delighted by the many stories about Marion Frank. Marion Frank helped to make the School of Radiography at the Middlesex Hospital world renowned, and Adrienne Finch who chaired the day has edited a book "Radiating Knowledge, The History of the Middlesex Hospital Schools of Radiography" which is a fascinating account of the development and contribution of this very special department. The book is well worth reading. Marion Frank was one of a kind and her flat in Lancaster Gate in London was always

welcoming to a stream of foreign visitors who took advantage of her hospitality. Those who helped with the day were delighted to be presented with "The Order of the Frankfurter," which had originally been presented by Marion upon her retirement in 1980 (please see the front cover!).

The book is "Radiating Knowledge, The History of the Middlesex Hospital Schools of Radiography" and is edited by Adrienne Finch. Disco (2012). Copies of the book can be obtained from Patricia Ducker

p.ducker.barber@btinternet.com



RADIATING KNOWLEDGE

The Story of The Middlesex Hospital Schools of Ra

Best wishes Adrian

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Interesting Web Sites:

AIFM (Associazione Italiana di Fisica in Medicina) virtual Museum.

The site of the AIFM virtual Museum has changed address and is now to be found at: <u>http://www.fisicamedica.org/museo_virtuale/</u>

It may also be accessed from the Home page of the site of the Associazione Italiana di Fisica in Medicina http://www.fisicamedica.org/aifm/01 home/index.php by clicking on the "Museo Virtuale" icon.

The Third International Congress of Radiology.

Le troisième congrès international de radiologie, Paris 1931. Can be found at : <u>http://www.sfrnet.org/sfr/societe/1-sfr/4%20-</u>

<u>%20Centenaire%20de%20la%20SFR/article.phtml?id=rc%2Forg%2Fsfrnet%2Fhtm%2FArticle%2F2009%2Fht</u> <u>m-20090806-083408-859</u>

The Third International Society of Radiology was an important and influential meeting and it was held from 26-31 July 1931 at the Sorbonne in Paris. There is a nice paper by H Nahum on the web site of French Society of Radiology (Journal de Radiologie - Vol 90, N° 6 - juin 2009 - pp. 671-674).

A short History of Hungarian Radiology.

http://www.socrad.hu/info.aspx?sp=23



"... We can be proud of the fact that in this scientific development our nation has had a significant role – and can be predicted to have an even more important one in the future. We are not short of scientists: Hungarian Roentgenology is up-to-date in all respects. Nevertheless, as a consequence of our poor economic situation, we lack two factors of great importance: the industry of Roentgen technology and a journal of the trade." Béla Kelen (1926)

This is an interesting account of their history.

2009 Japan Prize : 2009 Commemorative Lecture : Dr. David E. Kuhl : A Slice of Life; 50 Years of Emission Tomography.

This information was sent to me by Richard Waltham who wrote that he stumbled across the following video of David Kuhl speaking in Japan in 2009: <u>http://www.youtube.com/watch?v=fhNy628Dows</u>

It is a 44 minute talk and interesting, and at about 22mins 40secs he describes his CT scan which predates that of Godfrey Hounsfield. At 31 mins 40secs in the video Kuhl says that when Godfrey's work was published it was clearly far ahead of his work. Kuhl says rather modestly that his 1965 work generated a "first approximation to CT scanning". Kuhl 's main focus was really on Positron Emission Scanning.

Godfrey Hounsfield (GNH Nobel Lecture) 1979.

Godfrey N. Hounsfield held his Nobel Lecture on 8 December 1979 at the Karolinska Institute in Stockholm. He was presented by Professor Ulf Rudhe who was a member of the Nobel Committee for Physiology or Medicine. The Nobel Lecture is available at:

http://www.nobelprize.org/mediaplayer/index.php?id=1663&view=7

The technical quality of the recording is rather poor. The video runs for 58 minutes and there is a separate 11 minute video of the introductory speech that Professor Ulf Rudhe made when introducing Godfrey Hounsfield.

The link for the PDF file of the lecture is:

http://www.nobelprize.org/nobel_prizes/medicine/laureates/1979/hounsfield-lecture.pdf

bionerd23 on YouTube.

There are many interesting films on YouTube. bionerd23 has uploaded a number of them including: "radioactive spitfire warbird altimeter – doped with radium" <u>http://www.youtube.com/watch?v=xirtUF-iJXA&feature=youtu.be</u>

This was uploaded by bionerd23 on 10 Apr 2010 and who comments: "i scored a beautiful warbird altimeter! not only is it a great feeling to hold such an old instrument in your hand... knowing a british pilot has been fighting for life or death in his plane, keeping an eye on it... but the instrument is also insanely hot, radiation wise!"

Fred Dawson comments that "With all the interest in radium dials the following YouTube video provides an insight in the hazards. If I were doing this I would certainly take more precautions to avoid exposure to radium and radiation. Whilst using a plastic bag to limit the risk of contamination I would place the bag in a shielded container for storage. In any case best not to try this at home.

http://youtu.be/xirtUF-iJXA

This is a link to the gamma scout instrument used in the video http://www.gammascout.com/

German Roentgen Museum. Röntgen für Kids.

http://www.werkstatt-roentgen.de/museum.html http://www.werkstatt-roentgen.de

A nice web-site about the museum for kids (in German). "Werkstatt Röntgen" für Kids - was mit einer gemeinsamen Idee zwischen dem Röntgen-Museum und der Grundschule Hackenberg begann, erfuhr bald solch breite Zustimmung, dass uns klar wurde: Wollten wir alle wünschenswerten Ziele verwirklichen, würden wir große Unterstützung brauchen, sei es ideeller, praktischer oder finanzieller Art.

Official Facebook site for Werkstatt-Roentgen in Remscheid-Lennep. Werkstatt-Roentgen (for kids): http://www.facebook.com/Werkstatt.Roentgen

The International Society for the History of Radiology (ISHRAD).

Is on Facebook! ISHRAD is the first Society especially dedicated to the History of Radiology and Radiological Technology. The aims of the society are the advancement of scientific research and exchange of information in the field of the history of radiology and radiological technology and practice.

AuntMinnieEurope. www.auntminnieeurope.com

There are a series of articles appearing on Aunt Minnie Europe:

Should Kate Winslett play Florence Stoney?

http://www.auntminnieeurope.com/index.aspx?sec=sup&sub=wom&pag=dis&ItemID=605724 'Dr. Florence Stoney's life story would make a great Hollywood blockbuster, particularly if Kate Winslett took the leading role, suggests our history columnist, Dr. Adrian Thomas, who describes the life and career of this remarkable woman.'

How molecular imaging was born.

http://www.auntminnieeurope.com/index.aspx?sec=sup&sub=mol&pag=dis&ItemID=605972 As molecular imaging continues to develop, it's worth considering the origins of nuclear medicine, which has a long and rich history. Appreciating the early days of nuclear medicine can lead to a better understanding of today's developments.

It's time to celebrate another x-ray pioneer's centenary.

http://www.auntminnieeurope.com/index.aspx?sec=sup&sub=xra&pag=dis&ItemID=606329

The discovery of x-rays was first met with scepticism and the public had to be reassured this was not a joke. They couldn't believe that there was a machine that could see through the body. While Wilhelm Conrad Röntgen discovered the phenomenon, it was Max von Laue, Paul Peter Ewald, and others who discovered the actual nature of x-rays.

40 years of CT: Facts you may not know about Godfrey Hounsfield.

http://www.auntminnieeurope.com/index.aspx?sec=sup&sub=cto&pag=dis&ItemID=606586 The first public announcement of CT came on 20 May 1972, and it changed radiology forever. But there are many myths and misconceptions about the early days of CT and its chief inventor, Godfrey Hounsfield. In our latest history column, we look at some of them.

Global gathering celebrates life and career of Marion Frank

http://www.auntminnieeurope.com/index.aspx?sec=sup&sub=xra&pag=dis&ItemID=606626 May 22, 2012 -- A celebration of the life of the well-known international radiographer Marion Frank took place in London last Saturday. The organizing committee for the event, called "Frankly Speaking," was led by her friend and colleague, Margaret McClellan, and there was a large audience, with some people coming from afar.

And two BIR Pioneers:

Florence Stoney (1870-1932) http://www.bir.org.uk/media/6696/florencestoney.pdf

Miss Margaret Dorothy Snelling MRCP FRCS FFR DMR (1914-1997). http://www.bir.org.uk/media/6702/snelling%20thomas.pdf

Recent Books:



Godfrey Hounsfield: Intuitive Genius of CT (paperback) ISBN 978-0-905749-75-4 (£14.99).

Written by Stephen Bates, Liz Beckmann, Adrian Thomas and Richard Waltham, and including many recollections from his family, friends and colleagues, this book provides a new insight into the life of one of science's greatest pioneers.

Order your copy now: <u>http://bit.ly/yvL2NM</u>.

This book is also available in hardback: <u>http://bit.ly/zGOBJP</u>



A mild-mannered, pleasant but determined genius, Godfrey Hounsfield made a great breakthrough in medical imaging CT scans in 1972. His revolutionary method led to fast, pain-free, and accurate diagnosis of conditions of the human brain, and today helps to bring health benefits to people all over the world. Blood clots caused by strokes, falls, or motor accidents are diagnosed and treated before causing irreversible damage. Tumours are located and assessed without exploratory surgery.

The man who pioneered this had no medical training. Godfrey Hounsfield left school with no qualifications, and he is one of the few Nobel laureates not to have learnt their skills at university. He was mostly self-taught and he thought in unusual ways, using pictures, analogies, and intuition. He was a peaceful man, but his wartime years in the RAF, during which he became a radar instructor, were a major turning point, and this boy from a farm went on to change the world.

Godfrey Hounsfield believed strongly that science and engineering could improve life and health for ordinary people, and he wanted to pass on that enthusiasm to the next generation.

"Full of anecdotes from those who knew him best, this biography provides a wonderful new insight into one of our greatest scientists." Dame Professor Janet Husband

Paperback at £14.99 plus £2:50 postage: https://bir.org.uk/membersarea/shop/details.asp?id=28&Blue=True

Hardback at £34.99 plus £2:50 postage: https://bir.org.uk/membersarea/shop/details.asp?id=29&Blue=True Jake's Corner, The Life of a Radiologist and golfing Times of Dr Jake Davidson, Former Head of Radiology, Western Infirmary & Gartnavel General, Glasgow

Flexcover: £10.00 Hard Back: £25.00

Available from Dr J K Davidson, 15 Beechlands Avenue, Glasgow, G44 3YT

E: jkd15b@talktalk.net T: 0141 637 0290

"Radiology has changed spectacularly. 'Scans'are now everyday words, whether CT, MRI or ultrasound. These brilliant new techniques, some developed in the UK and Scotland, have changed radiology forever, As Head of Radiology, at a major Glasgow teaching hospital, it has been Jake's good fortune to have taken an active part. Now no longer an X-ray room in the basement and a 'home for drop outs', Radiology is now the 'third most important development'. These have been the 'Golden Years of Radiology but not enough Gold'. This is the Radiology story. Qualifying in 1948 on the very day the NHS started, young Dr Jake, was full of ideals and keen to make the NHS work. Not a disaster as so many predicted. He has lived through the many Reforms and the chronic shortage of funds.

'Jake's Corner' is a camp site in Arizona where he stayed after being honoured with an Honorary Fellowship of the American College of Radiology. The very title allows detours into a wide range of interests. Golf and golf history are his abiding passions. The story takes us through

Jake's Corner



The Life of a Radiologist and golfing Times of

Dr Jake Davidson

Former Head of Radiology Western Infirmary & Gartnavel General, Glasgow

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Pollok GC, the R&A, and the Masters, the British Golf Collectors Society, the centenary of Kobe golf club and the start of Japanese golf. The story includes his work in detecting bone disease in Clyde tunnel workers and North Sea divers; X-raying the Rembrandts in the Glasgow galleries with some surprising results; being a Visiting Professor, a radiologist in Sydney, a fan of Robert Louis Stevenson, a Tory politician and being 'forever a struggling artist'. Yes the NHS has been a success, funding remains the problem. Jake Davidson is one of nature's gentleman, a man of distinction but, just as important, a warm hearted and thoroughly likeable human being.' Jack Webster."

Radioactivity: A History of a Mysterious Science [Hardcover]

Marjorie Malley C. (Author) Hardcover: 288 pages Publisher: OUP USA (27 Oct 2011) Language English ISBN-10: 019976641X ISBN-13: 978-0199766413 Product Dimensions: 21.1 x 14.2 x 2.5 cm RRP: £14.99 Price: £7.50 & Free Delivery with Amazon Prime

A brief history of radioactivity. Quite superficial and mainly dealing with the early years. A good account of the key figures involved in the story.

The Infinity Puzzle: How the quest to understand quantum field theory led to extraordinary science, high politics, and the world's most expensive ... and the world's most expensive experiment [Hardcover].

Frank Close (Author) RRP: £16.99 Price: £11.89 & Free Delivery with Amazon Prime Hardcover: 416 pages Publisher: OUP Oxford (27 Oct 2011) Language English ISBN-10: 0199593507 ISBN-13: 978-0199593507

An account of the breakthroughs which inspired the construction of the Large Hadron Collider at CERN in Geneva. The Infinity Puzzle is the inside story of those forty years of research and the contributions of r. Peter Higgs, Gerard 't Hooft and James Bjorken. Written by Frank Close, an eminent physicist and award-winning writer.

The Rise and Fall of EMI Records [Hardcover]

Brian Southall (Author) RRP: £19.95 Price: £17.96 & Free Delivery with Amazon Prime Hardcover: 278 pages Publisher: Omnibus Press (6 July 2009) Language English ISBN-10: 184772244X ISBN-13: 978-1847722447

Electric and Music Industries Ltd (EMI) first saw the light of day in the UK in 1931. An account of the rise and fall of EMI. Brian Southall worked as a journalist with Music Business Weekly, Melody Maker and Disc before joining A&M Records.







Radiology Medals.

André Dariaux.

Le Centre Antoine Béclère attribue, chaque année, au cours des Journées Françaises de Radiologie, une médaille destinée à honorer un médecin ou physicien pour son œuvre en radiologie. 1959 André DARIAUX France (1929-1953)



André Dariaux was Secrétaire Général of the Société Française d'Electroradiologie from 1929 to 1953.

B Krönig (1863-1917).

This is a lovely medallion of B Krönig. Krönig was interested in therapy and in 1912 devised a mesothorium canon. Krönig is important in the development of telecurietherapy. Krönig worked in the Freiburg Women's Clinic in Breslau Prior to this in the earliest days radium was used as a pack or bomb when tubes were applied to the tissues. No attempt was made to either localise or canalise the radiation. The radium was mounted onto base of low density material. There were many disadvantages to this approach and there were dangers to both the patient and the operator. It was Krönig who first attempted to canalise the radiation. This was much safer from the radiation protection standpoint. Krönig used a lead container with a wide exit portal and used mesothorium. This mesothorium canon was used for gynaecological cancers. Using his canon he irradiated the true pelvis for uterine cancer that had spread to the parametrium. Unfortunately the treatment times were very long which limited the number of patients that could be treated and all of the stock of mesothorium



was utilised. In 1915 Eric Lysholm from Stockholm in Sweden developed Krönig's idea and used radium. In 1923 Lysholm produced his radium howitzer.

References:

Krönig, B. His Mesothorium Cannon, 1912. In Radium. Uniom Minière de Haut Katanga, Brussrels, Belgium, 1931. P. 212.

Lederman, M. The Early History of Radiotherapy: 1895-1939. (1991) Int. J. Radiation Oncology Biol. Phys. Vol 7, pp 639-648.

Bulgarian Association of Radiology.

(Bulgarian Scientific Society of Röntgenology, Radiology and Radiobiology)





Bulgarian Association of Radiology http://www.medicalnet-bg.org/bar/r&r.htm SZPITAL POWIATOWY im. Marii Skłodowskiej - Curie w Skarżysku – Kamiennej



The link to the hospital http://www.zoz.com.pl/

Vignette #26a Sequel to A Day In the Life in Vietnam: "Radiology in the War Zone"

By A. Everette James, Jr. ScM MD

After over a number of decades, my experience in Southeast Asia has come full circle. In the late 1960s I repressed it, and in the 1970s it rarely received any of my attention at all. Early in the 1980s, my involvement in the Vietnam Veterans Leadership Program caused me to reflect upon my experiences, and, after further introspection, I have the compelling feeling that now I should share some of my experiences with others.



Landing Vung Tau, South Vietnam (November 3 1965)

My unit, the 93rd Evacuation Hospital, arrived in the country late in the summer of 1965. In true army fashion, we climbed down the side of our ship to board the armoured landing craft and "stormed the beach." After we were shuttled around by plane and truck convoy for many hours, we learned that our evacuation hospital was yet to be. Wishing to exercise our professional skills as soon as possible, several of us set out for Saigon in search of equipment and some radiology to practice.

93rd Evacuation SVN 1965-66



I was fortunate enough to learn that the Naval Hospital needed a radiologist. The equipment there consisted of vintage 1950's fluoroscopy unit and several convention rooms located in the first floor of the Metropole Hotel. On my first day, I discovered several things. One was that the Embassy personnel had an insatiable desire for upper gastrointestinal series examinations.

93rd Evacuation Hospital, Bien Hoa area SVN 1965-66



Hunkering Down 93rd Evacuation Hospital SVN 1966



Another revelation came in the form of a Vietnamese radiologist who had spent a year in the United States and worked for the Navy as a consultant. He was a graduate of a South Vietnamese medical school. Thus, I came to learn, placed him at a disadvantage because most of the medical hierarchy were graduates of the medical school in Hanoi and many had trained in France. Dr. X (he still practices in Saigon [now Ho Chi Minh City]) asked me to join him at the Cho Ray Hospital in Cholon. The radiology equipment and practice of our discipline there were very primitive. Contrast GI studies were performed with overhead radiographs only, as fluoroscopy was not available. The hospital was a legacy of the French, and our machines reflected that orientation. Patients appeared in bolus fashion brought over by lorry from other areas by a priority scheme I never mastered.

For whatever reason, the medical students found the radiology department an intellectual gathering place and would quietly observe my activities. As I interpreted the studies, involving the students in the process was incredibly difficult. Dr. X explained to me that this was a form of respect and that if they posed a question I did not know the answer to, I would "lose face." This formal relationship became so frustrating that I explained to them that I too was a student but had my training interrupted to come to South Vietnam, and that I needed their assistance to arrive at the proper diagnosis. After that, we gradually approached the give-and-take of the interpretive sessions that characterize U.S. programs. Also, the medical school grapevine (the most efficient method of data transmission ever developed, irrespective of venue) resulted in a five-fold increase in our audience within weeks. Medical students were soon joined by house staff and faculty, who would observe without commentary.

One day a very distinguished gentleman invited me to give a formal lecture at the medical school for all of the faculty and residents. I subsequently learned that he was the chairman of surgery. Overjoyed, I related this development to Dr. X, who failed to share my pleasure but politely expressed acknowledgement of my good fortune. I was puzzled by this, so one day while in an interpretive session at the Naval Hospital, I approached the subject by asking him where I might have slides produced and if I could borrow some teaching examples from our archives in the Cho Ray Hospital, the South Vietnamese Hospital (Cong Hoa) or the Province Hospital, where we had seen so many congenital disorders among the dependents. Dr. X was helpful but seemed disturbed.

My indirect approach did not achieve a satisfactory explanation, so I went directly to the issue and discovered that he had never been invited to lecture because he was South Vietnamese trained, and his brief sojourn to America was seen with envy but treated with disdain. A further revelation, however, was the most important to me: "Radiology is taught by the real doctors, the surgeons and their clinical colleagues." That did it! I decided that radiology would be marketed in absolutely the most acceptable manner.

Cho Ray Hospital Saigon (IVP for VC)



The next day I posed a concern to the chief of surgery that I would not be understood by my audience unless I imparted the message in a language with which they were facile. My English, while fluent, was compromised by something known in my country as a drawl, which, while ever so charming, might distract the audience. The appropriate language would be, of course, French, and the last time I ordered a meal in Paris the waitress thought she had been propositioned. However, I had the proper solution in an interpreter who knew both languages as well as the science and medicine involved. The chief of surgery recognized this as a proposal he was compelled to accept and graciously did so.

This arrangement worked wonderfully well for all involved and the lecture halls became progressively filled with each performance. At first, the senior faculty sat in the front rows, while the medical students and house officers were relegated to the bleachers and "nosebleed" sections. However, when I implied that audience participation was forthcoming and the players might appropriately be selected according to proximity to the radiographs (we were now using both view boxes and a screen; slide preparation was universally too slow), the faculty wished to give the youngsters the opportunity and honour. I remember these sessions with pleasure and satisfaction.

The 8th Field Hospital near the Tan Son Nuit Airbase was a going operation by the end of 1965, but I found working for the Navy, the Embassy, and the two South Vietnamese hospitals in Saigon much more rewarding. By the time the 93rd Evac was completed, I was very involved with paediatric radiology at the Cong Hoa (I had a copy of the seminal text by Caffey [given to me by the late Ed Neuhauser] which I donated to the Medical School to replace their Taiwanese version), the Pasteur Institute, and in diagnosing the psychosomatic gastrointestinal diseases of the U.S. Embassy.

The latter resource, through the graciousness of Ambassador Henry Cabot Lodge, had gained me entry to the tennis courts of the Circle Sportif Saigonnaire. Once inside that elegant facility, I convinced the young pro that if we did battle during the lunch period he would never be subjected to heat exhaustion, dehydration or public ridicule. Thus, I never severed my ties, however informal, to Saigon, although my main base of operations was in the Long Binh area, which, while starting as a single hospital operation, grew to become the headquarters for the U.S. Army in Vietnam.

Radiology equipment for the first evacuation hospitals appeared to be a transfer of material from the Korean War. Fuji-powered generators were our power source, and our greatest limitation was lack of circulating water and temperature control in our darkroom. At first we had no fluoroscopic equipment, but an unauthorized requisition from U.S. Aid to International Development (USAID) temporarily solved that problem. We received patients by ambulance, jeep, and other native modes of transportation, but during operations they would arrive via helicopter. Our helicopter unit was an integral part of the 93rd Evac, and during quiet periods, we had the flexibility of being quickly transported to other medical facilities and to the beach at Vung Tau.

Later in 1966, the 24th Evac was operational at Vung Tau, a Riviera type resort on the South China Sea, allegedly enjoyed by the Viet Cong as well as the Korean and U.S. military troops. By this time we were attempting to make the hospitals more complete, and we fixed installations to allow the rapid transport time of the helicopters to assure prompt, definitive treatment for the acute patients. This circumstance meant that patients would often arrive in bunches, and triage decisions were not just surgical in nature.

The radiologists would be a vital part of the diagnostic and treatment planning process. With large military operations, casualties would arrive in such large numbers that the radiological studies were completed long before the surgical procedures. Thus the radiologist often became a surgical assistant, bringing back memories of medical school days and of the Johns Hopkins' emergency service during my elective with Dr Morgan and Dan Torrance. I got to know Carl Gordon, Dick Mackey, Bill Hammaker and Dick Currie well. My specialty because of Fred Butler became "blow out" fractures of the orbit, although these inquiries almost never resulted from conflict with the Viet Cong. Special procedures were, indeed, "special," as fluoroscopic equipment was not always available and film changers were nonexistent in 1965-1966.

One of my more interesting experiences of the Vietnam War was the opportunity to provide radiological services to the leprosarium near our base camp at Bien Hoa. With my colleagues including Fred Butler, we would fly up as a team by helicopter, usually on Sundays, and would be welcomed by Catholic priests and their entourage of nuns, nurses and aides. First, we would be treated to a sumptuous repast while they informed us of the news of their colony and the health problems that seemed most immediate. This was a very pleasant experience and, except for the visits in the homes of the Vietnam physicians in Saigon, most closely approximated a family gathering for us.

Bien Hoa Province Hospital SVN 1965 x-ray unit (French)



In addition to the classic radiographic findings of leprosy, many other disease processes were expressed due to the debilitated state of the lepers. Tuberculosis was particularly common, as were parasites and many secondary invaders I never did identify, despite assistance from the Pasteur Institute in Saigon.

Although our visits to the leprosarium were not absolutely regular or predictable, they must have had a pattern. Frequently on our return to Bien Hoa or Long Binh, the Viet Cong would fire tracers at the "slick" ship (helicopter without armament). From the tracer pattern, they seemed as if they were doing this as a social event or as some arcane manner of reminding us of their presence. For a long period of time, we made light of this; but after we found several holes from their rounds in the fuselage of the helicopter, we deviated our route and flew a bit higher. Terrorist Bomb of AEJ Radiology Department in Metropole Hotel Saigon December 1965 Haiti brought back memories

Radiology Department December 1965 in Neteopole Hotel, Saign Meteopole Hotel, Saign Tenoriet drove a fuelt Tenoriet drove a fuelt Juleo with explosive into The looty. Several my perannel were injured or perannel were injured or presented in age The Fluor one loot an age The Fluor units in the first floor were distinged. Events James



Arriving early in South Vietnam had several disadvantages, but these were more than offset by the opportunities this circumstance afforded. All manner of installations and combat groups had need for a radiographic capability. Many of the physicians had entered service directly from internship, residency, or fellowship and were appreciative of the capabilities of our discipline. In fact, they felt incapable of providing competent care without a radiology facility. Thus, cooperation and gratitude were immediately forthcoming from our clinical colleagues as we struggled with the unpredictability of the supply and transport system, military bureaucracy, inadequate and often unsuited technology, and the vagaries of climate and terrain.

Sometimes when I muse about the hallowed position of the academic chairman and guardian of the radiologic "turf," protector from CONs, HMOs, PPOs, (PLO), DRGs, and RVS, and advocate for a service-based specialty, I recall with pleasure the satisfaction of diverting a fluoroscopy unit from USAID storage to an evacuation hospital where it would be immediately used or providing a simple portable machine for my Special Forces unit to establish a makeshift battalion aid station for their Montagnard soldiers.

Even more exciting and instantly rewarding was securing and transporting the appropriate radiology capability to support a major military operation. Often, one might move into the intended combat zone with the advance party, survey the possible alternatives, and set up the radiology capabilities according to their onsite and almost instantaneous assessment. There were no guidelines, textbooks, consultants or "graybeards" to turn to. The equipment had to function because radiological diagnosis often determined which casualties were held and which were transported to more fixed installations with capabilities of more sophisticated and definitive medical care. At first this reminded me of a hunting expedition with my colleagues, and I treated the potential danger as unimportant and with some denial. However, when one of our technologists was killed by a sniper, this activity abruptly changed from an abstraction to a reality, and the Vietnam War now became personal. Generalities of pain, suffering and death are far less poignant than the realization in the killing of a single individual friend or loved one.

The radiological technology provided for our action in South Vietnam was only marginally suited for the climate, terrain, and mission. Just as our military desires were sometimes unrealistic, so were our medical plans and wishes. We wanted to engage in a conventional war so that our air strike forces and superior firepower would provide us significant military advantage. This form of deployment was far less effective in jungle warfare, for which we had almost no experience and, as one would suspect, marginal training and preparation. The overall scheme for medical technology often seemed based upon premises from previous combat experience in an environment with little relation to that present in Southeast Asia.

In a conventional war (the author is aware that our military activities in South Vietnam are still classified as a "conflict") battle lines can be defined and safe areas reasonably well identified. Thus, the appropriate deployment and location of radiological facilities can be planned with reasonable certainty. In a non-conventional war, the combat zone is at best ill-defined, and flexibility is the most important characteristic of any healthcare installation. The challenge early in South Vietnam was how to achieve this flexibility or, translated into realistic terms, mobility. For some of us it soon became apparent that a MASH (Mobile Army Surgical Hospital) was not "mobile" in terms of troop

movement in South Vietnam. To move an installation of this type took hours, and the Viet Cong seldom, if ever, provided this type of notice, nor was our intelligence sufficiently rapid to give us this type of lead time. We configured our MASH units with a great deal more permanent character, thus influencing the selection of radiographic equipment.

In my first overview "rounds" with the commander, General William C. Westmoreland, it became apparent that "mobile" should rest in the patient transport system and not in the medical installations themselves. This change effectively increased the importance of the radiologists because they now had a mandate for equipment with more diagnostic capability. Over the next 5-7 years, we constructed additional fixed hospital units with radiology sections, upgraded some of the equipment that had originally been taken from storage, and made provisions for circulating water and temperature control. One would hope that what we left at the end is being employed to assist, in a material way, the healthcare effort in that most unfortunate country.

Recent visits by my colleagues have brought positive reviews but that Long Bien has changed beyond recognition. I have mixed feelings about returning.