



CIBSE

Hong Kong Branch
1979-2004

25th Anniversary Dinner
30 March 2004

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Message from

Mr. Michael Suen Ming-Yeung, GBS, JP

Secretary for Housing, Planning and Lands

Established in 1979, the Hong Kong Branch of the Chartered Institution of Building Services Engineers has made significant contributions towards the sustainable development of Hong Kong. Your members have provided and maintained comfortable, healthy and safe working and living environments for the occupants of buildings. It is increasingly important that we shall take a holistic approach towards planning, design, construction and maintenance. In answering the community's call for upgrading our living environment, I am sure that with the expertise and advice from your profession, our housing design will become more and more intelligent, environmental friendly and move with time.

On this silver jubilee commemorative occasion, I wish that your profession will further develop from strength to strength and scale new height in your endeavour.



Michael SUEN Ming-yeung
Secretary for Housing, Planning and Lands
Government of the Hong Kong Special Administrative Region



Message from

Mr. Terry Wyatt

CIBSE President

It gives me great pleasure on behalf of the Institution to offer my congratulations to the Hong Kong Region on the auspicious occasion of its 25th Anniversary.

From its early days, the Region has grown to become the largest and most active of all our regions. The enthusiasm of Hong Kong members, particularly in the quest to extend their knowledge and professional development, has always impressed me.

The growth of membership in the Region did not happen by chance. The sustained efforts of members and especially committee members over the years have undoubtedly been the main reasons for this success.

I wish all in the Region great success in the future and I am confident that Hong Kong will continue to grow and prosper over the next 25 years.

On my own behalf, I would also like to thank you and your members for the kindness shown to me during my recent visits.

A handwritten signature in black ink, appearing to read 'Terry Wyatt'. The signature is stylized and cursive.

Terry Wyatt FCIBSE
President
CIBSE

CIBSE



Message from

Mr. Julian Amey

CIBSE Chief Executive

I am delighted to congratulate you on the occasion of the 25th Anniversary of the Hong Kong Region of CIBSE. As you know we greatly value the Region's contribution to the aims and objectives of the Institution.

On my visits to Hong Kong I have always been impressed by the enthusiasm of your members for CIBSE and despite Hong Kong's geographical separation, the Region remains an integral and vital part of the Institution.

Over the 25 years, Hong Kong has grown to become CIBSE's largest region numerically. For that, we owe a considerable debt to the tireless efforts of you and the committee members who have served throughout the period. Growth in membership shows no sign of abating, particularly with the dramatic economic expansion in Southern China.

I am confident that the coming years will further increase the Region's importance to CIBSE and to building services worldwide.

On a personal note, I would like to thank you and your committee for the generous hospitality during my visits. It is always a pleasure to visit Hong Kong.



Julian Amey
Chief Executive
CIBSE



Message from

Mr. Victor Cheung

Chairman of CIBSE Hong Kong Branch

1979 might not be a good vintage for French wine but it was certainly an exceptional year for CIBSE. In January 1979, the then President Mr. Lourie Hadly inaugurated the Hong Kong Branch with Mr. Ian Phillis as its first Chairman.

Since then the Branch has sustained phenomenal growth from about 80 members to over 2300 today, making us the biggest region outside UK. Our achievements have been built upon the strong dedication of our past chairmen and committee members who had devoted so much of their valuable time and effort in organizing numerous technical and social activities for members.

The objectives of CIBSE are to promote the art, science and practice of building services engineering for the benefit of all and to advance education and research in building services engineering. During the past 25 years, our members have been playing an important role in the development of Hong Kong by applying their technical skills and expertise in creating and maintaining better built environments for the well being of the occupants. Nowadays, building services engineers are facing greater challenges not only in providing a high quality built environment but also in energy conservation and preservation of the environment for the benefit of our future generations. Such challenges create enormous opportunities.

It is indeed my privilege to be Chairman of the Branch this year and I would like to thank our past chairmen and committee members for their contributions in building up the Branch. I wish the Hong Kong Branch continued success in the future.

A handwritten signature in black ink, appearing to read 'Victor Cheung', written over a large, faint, light blue watermark of the CIBSE logo.

Victor Cheung
Chairman (2003/2004)
CIBSE Hong Kong Branch



Message from

Mr. Ian Phillis

Founding Chairman of CIBSE Hong Kong Branch

In this year 2004 and looking back at 25 years of achievements, the CIBSE Hong Kong Branch can, with justification, celebrate its 25th anniversary.

Over the past 25 years the officers, committees and branch members have pursued a programme of professional learned society activities such as taking part in conferences (with others), holding technical paper lectures, site visits, CPD training and peer reviews. Furthermore, branch social events have been held and much appreciated. The Branch has played a useful role in support of members and in particular younger members, who by attending the above functions can meet more senior and experienced members who they might otherwise never get to meet. Such contacts all add to their social and working confidence. These contacts are also appreciated by senior members willing to share their knowledge and experience with others.

The Branch also provides opportunity for members to take part in its management by joining committees and taking on the responsibilities of office. This is all very good for personality development.

When we consider the vast amount of construction projects carried out in Hong Kong over the past 25 years, clearly the local members of CIBSE Branch have been very busy. With so much work and responsibility there is a genuine need for the unifying influences that the Branch organization, backed up from Headquarters in London, and in collaboration with the Building Services Division of HKIE can provide. Long may that support continue.

Today, however, we celebrate 25 years of CIBSE Hong Kong Branch activities and as I was privileged to be its Founding Chairman in 1979, I wish the Branch and all its members a productive, happy and successful future.



Ian A.G. Phillis
FCIBSE



Message from

Mr. Philip Chan

Chairman of the 25th Anniversary Dinner Organizing Committee

In this springtime of 2004, I would like to wish all of you a happy and prosperous New Year!

This is my second term as the Social Secretary of the Hong Kong Branch, also the Chairman of the Organizing Committee of the Annual Dinner.

This year is also a very special year, as it is the 25th anniversary of the establishment of the Hong Kong Branch.

Hong Kong's economy has been bad in the past few years, however, it shows a sign of recovery recently. It is now the time for us to drive our business forward again.

To support our members to achieve their targets, the CIBSE Hong Kong Branch has enhanced her collaboration with the members and the industry. Last year, the Hong Kong Branch has arranged a series of meetings, seminars and sports events for our members to share their project experience, technical knowledge and mutual friendship. Through the scheduled activities, various missions have been accomplished as well as communications among organizations in the industry have been promoted.

For the coming year, your continuous support to the CIBSE and the Hong Kong Branch is essential. We are committed to do our best to serve all of you with more exciting and interesting social functions.

A handwritten signature in black ink, appearing to be 'P. Chan', with a long horizontal stroke extending to the right. Below the signature is a short horizontal line.

Philip Chan
Chairman
The 25th Anniversary Dinner Organizing Committee



Message from

Ir. Dr. Alex Chan

President of the Hong Kong Institution of Engineers

On behalf of the Hong Kong Institution of Engineers, I would like to extend our warmest congratulations to the Chartered Institution of Building Services Engineers (CIBSE) Hong Kong Branch on the joyous occasion of its 25th Anniversary.

Building services engineering covers a wide aspect including the design, installation, operation and maintenance of mechanical and electrical services in buildings that greatly improve the quality of our life. Over the past years, the CIBSE Hong Kong Branch has contributed significantly to the development of better buildings. It does not only support its members to serve the community, but it also promotes high standards of professional practice. Its remarkable achievements have greatly improved the well being of the general public. Our joint effort in investigation of the building services system to combat the SARS epidemic last year was one of the examples.

May I wish the Anniversary a great success and I look forward to building a closer working relationship with the CIBSE Hong Kong Branch for the betterment and the benefit of our building services industry and the community.



Ir. Dr. Alex S K CHAN
President
The Hong Kong Institution of Engineers



Message from

Mr. Vincent Chu

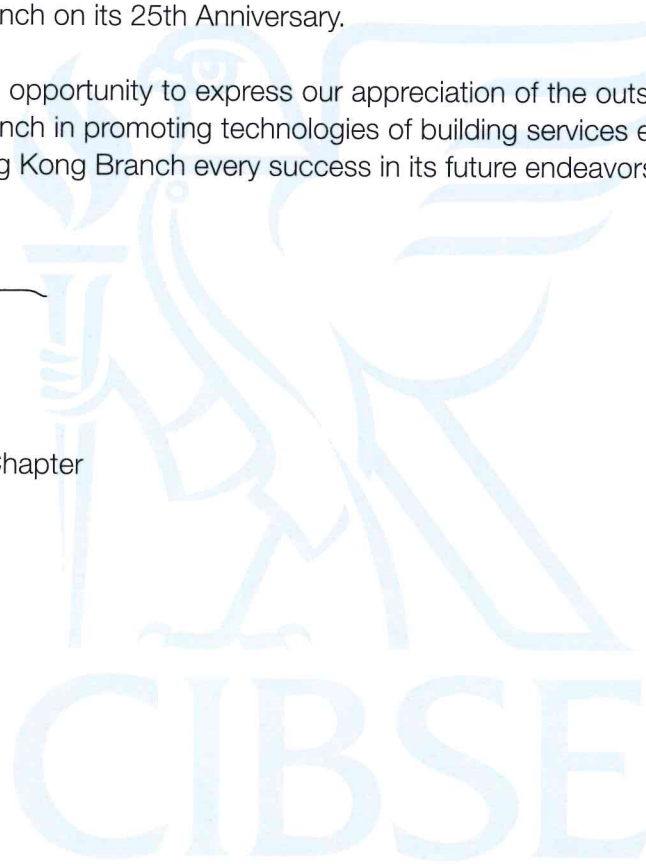
President of ASHRAE Hong Kong Chapter

On behalf of the ASHRAE Hong Kong Chapter, I am pleased to send my warmest congratulation to the CIBSE Hong Kong Branch on its 25th Anniversary.

I would like to take this opportunity to express our appreciation of the outstanding achievements of the CIBSE Hong Kong Branch in promoting technologies of building services engineering in the past years. May I wish CIBSE Hong Kong Branch every success in its future endeavors.

A handwritten signature in black ink that reads "Vincent".

Vincent Chu
President (2003-04)
ASHRAE Hong Kong Chapter





Message from

Ms. Ruth Gee

Director of British Council Hong Kong

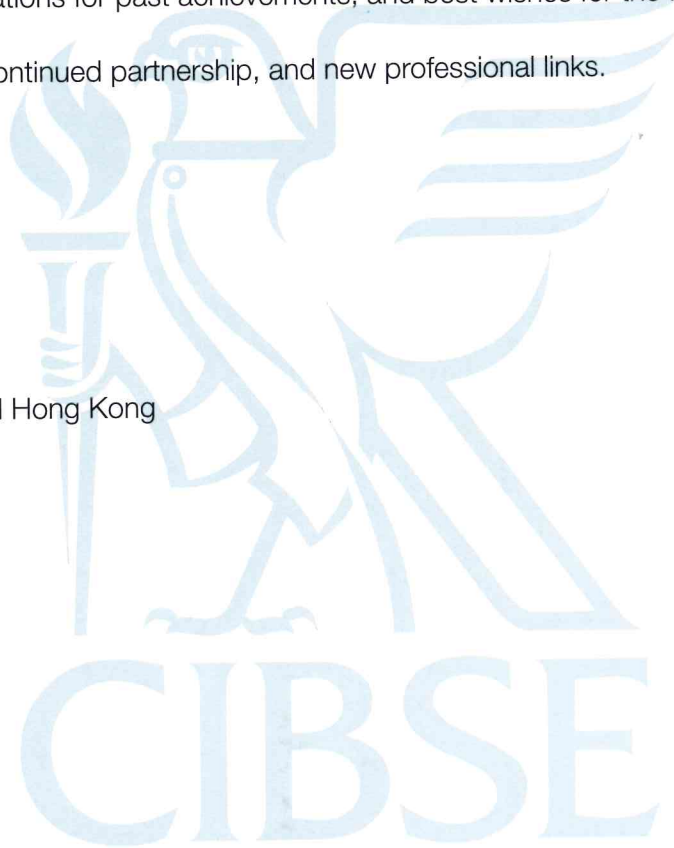
The British Council Hong Kong values its relationship with the CIBSE Hong Kong Branch. We extend our warmest congratulations for past achievements, and best wishes for the future.

We look forward to a continued partnership, and new professional links.

Warm wishes,



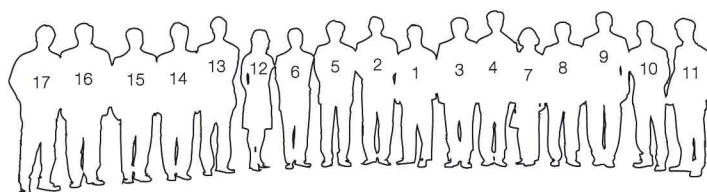
Ruth Gee
Director, British Council Hong Kong



Committee of the Hong Kong Branch 2003/2004 Session



1. Victor Cheung	Chairman	10. Peter Long	Helper
2. Ronald Chin	Vice Chairman	11. K Y Leung	Conference Co-ordinator
3. Thomas Chan	Hon Secretary	12. Ms Jovian Cheung	Young Member Group Chairlady
4. Patrick Kwan	Hon Treasurer	13. Philip Chan	Social Secretary
5. K O Yeung	Past Chairman	14. Gilbert Law	HKIE-BS Division Co-ordinator
6. Peter Wong	Past Chairman	15. Dr K T Chan	Mainland China Co-ordinator
7. Ms Priscilla Yeung	Communications Co-ordinator	16. Dr Albert So	Training Co-ordinator
8. K K Lam	Co-opt Member	17. Victor Yiu	ASHRAE Co-ordinator
9. Simon Chung	PI Co-ordinator	Thomas Soon	Technical Activities Co-ordinator



Activities of the Hong Kong Branch in 2003/2004



Shandong - Hong Kong Joint Symposium



Bowling Competition



Joint Career Forum



Visit to Guangdong University of Technology



Technical Visit to Kowloon Motor Bus Depot



SARS Busters : SARS Ward Mock-Up



President-Elect's Visit to HKIE



Asia Pacific Conference



Technical Visit to Two IFC



Meeting with BS Students
of HKU, Poly U, City U and HKUST



Presidential Reception



Annual General Meeting 2004

Brief History on the Formation of CIBSE Hong Kong Branch

In late 1977, Ian Phillis and Samuel Wong wrote repeatedly to CIBSE/UK regarding the possibilities to form a branch in Hong Kong.

CIBSE/UK wrote back suggesting Ian Phillis and Samuel Wong get together which they did. The second meeting introduced some others such as Edwin Tao, K.T.Chen, Andrew Shillinglaw and Patrick Yip.

Shortly after Norman Ludlow, Geoffrey Arnold, Alan Thompson joined what became the steering committee of which Ian Phillis was Chairman and Samuel Wong was Hon. Secretary, Andrew Shillinglaw the Hon. Treasurer.

A meeting was held in late 1977 at the Hong Kong Polytechnic to which all members were invited and to form a Branch. Voted upon, the answer was yes. Thus a petition was drawn up and sent to Norman Ludlow. The membership at that time was approx. 80 corporate.

In January 1979 the Inaugural session took place in the Shouson Theatre of the Hong Kong Arts Centre. The Hon. President Mr. Lourie Hadly inaugurated the Branch with Ian Phillis as its first chairman.

In April 1979, the first AGM was held and Edwin Tao took over Chairman and Norman Ludlow Vice Chairman. Samuel Wong remained as Secretary until April 1980 and Andrew Shillinglaw as Treasurer.



Secretary Bernard Hodges convening the Inaugural Meeting of CIBSE HK Branch on 17 Jan 1979

The Development of Building Services Engineering in Hong Kong

by Ir KWOK Ping-ki, Albert DipEE MBA CLJ
RPE FHKIE CEng FIMechE FIEE FIE(Aust) FCMl
HonFCIBSE HonFASHRAE HonFInstR
Former Director of Electrical & Mechanical Services, Government of Hong Kong
Former Secretary & Director General of the Hong Kong Institution of Engineers

Introduction

The development of Building Services Engineering in Hong Kong relies heavily on the works carried out by the biggest and most consistent developer in building construction in Hong Kong. Undeniably this incumbent must be the tax payers and developers, who funded and are still funding all works in the public and private sectors. By looking through the evolution process of Building Services Engineering in Government and in the private sector projects throughout these years, one might grasp some ideas how this Branch of Engineering is developed in this part of the world. The writer is proud to be one of the key players who had participated and witnessed in nearly all the events in Hong Kong.

Services in Pre-World War II Buildings

Buildings in those days were equipped with only lighting & ceiling fans. In secondary schools, town gas was available in the laboratories. Until in 1937, the Hong Kong Bank Headquarter Building was the first one equipped with air conditioning using J. E. Hall reciprocating compressors with ammonia as the refrigerant which were replaced by the Carrier higher speed 'W' type Freon machines in the mid fifties.

Queen Mary Hospital built pre-war was the most equipped in Building Services Engineering at the time. Senior members in Hong Kong might still remember the main plant room, consisting of 'Y' type switchboard, diesel fired boilers situated at the ground floor of the Central Wing in the Main Building. The whole building was served with passenger and bed lifts, with lighting and ceiling fans, cold and hot water in the wards and offices with heating by radiators, town gas service in the laboratories, refrigeration in the mortuary and blood bank, medical gases in the two operating theatres complete with fire alarm break glass units, fire hydrants and limited emergency electricity supply and a primitive drainage service system.

Services in Fifties

Immediately after the war on completion of the restoration and refurbishment phase, reconstruction began. Air conditioning was first considered a luxury and slowly became a necessity in Hong Kong because through air conditioning, the ceiling height could be reduced and the space per person could also be reduced. May House, the old Police Headquarter and the East Wing and Central Wing of the Central Government Offices were build in the mid-fifties equipped with the most up to date air conditioning plant which consisted of Sterne reciprocating

vertical compressors modeled '3Y14' running at 375 r.p.m. each equipped with three 14 inch diameter cylinders using sea water cooling in the condenser, unloaded by hot gas by-pass with automatic pump down controlled by the Honeywell step controller; treated primary air, with face and by pass modulating control in the air handling unit. All these were considered the art of the day. American Engineering Corporation, the agent of Carrier and Sterne systems, headed by the late Wilfred Wong Senior and Jardine Engineering Corporation, the agent of York system, headed by the late John Louie were happy rivals of the time. The lift installation was based on performance specification. Following the fire on the Christmas Eve 1953 in the squatter areas at Sek Kip Mei, seven storey high resettlement blocks were built within months, with only limited facilities such as basic supply of electricity, cold water and drainage service which formed the first chapter of government housing. In those early days, specification for the electrical installations using concealed conduit system was just established and a comprehensive specification was available in the late fifties in the Electrical Section of the Architectural Office in the Public Works Department. In addition, unit rates were incorporated into the maintenance contract. The Head of the Electrical Section was Bernard Roach, a Chartered Electrical Engineer.

Services in Sixties

In the early sixties, tenders for the construction of the City Hall, Queen Elizabeth Hospital and Kai Tak Airport Terminal were separately called and accepted. Planning and construction of the Lion Rock Tunnel also commenced.

In the private sector, Mandarin Hotel, Edinburgh House, and Union House were fully air conditioned. Existing buildings like the Old Supreme Court Building, Peninsula Hotel were renovated with air conditioning. New hotels in Kowloon like Empress Hotel, Park Hotel were also completed. The New World Development at Tsim Sha Tsui together with the Regent Hotel was also started. In the mid sixties, the services in the Hong Kong Cross Harbour Tunnel was recognized and still is the best equipped tunnel in the world, provided with the latest and most comprehensive lighting, ventilation, traffic monitoring and public address system, fire prevention, detection, warning, fighting & communication system, electricity interconnecting and emergency supply system, setting a bright and shining example for other tunnels not only in Hong Kong but also in the world. It became the biggest milestone in the planning of fire services for the safety and health of the general public.

various clinical areas and wards even with the main plant first specified in absorption system. Due to the problem of crystallization in other part of the world coupled with the fine control needed where the skill might not available in Hong Kong, the system was quickly changed to steam turbine driven centrifugal system. In addition, air conditioning, steam and hot water service were the responsibilities of the Electrical & Mechanical Office which was accommodated at Caroline Hill, Causeway Bay area rather than at the Central Government Offices Complex.

Due to the geographical separation of the design team from other members in various projects in the Architectural Office, close liaison, co-ordination and scheduling were difficult causing tender delays, co-ordination difficulties and late completion of some projects, without mentioning the problem of resource allocation and the division of responsibilities.

Embryo Phase of Building Services Engineering

It was therefore decided that all project team members should be controlled by the project leader under one roof and the Air Conditioning Section in the Electrical & Mechanical Office was transferred to the Architectural Office in May 1963 providing more efficient service to the projects, elevating the Electrical Section in the Architectural Office into Electrical Division with Bernard Roach becoming the first Chief Electrical Engineer in the Architectural Office, Frank Au to look after the Electrical Section and the late Anthon James to look after the Air Conditioning Section.

The first task in the Division was to produce a standard specification for the air conditioning system, a proforma schedule of materials and equipment, and a proforma schedule of unit rates. This made the tender comparison an easier task because any quantity and pricing errors in the tender were easily identified. As a consequence, the tender prices in government air conditioning installations became very competitive, eliminating the element of guessing at tendering stage. At the same time, staff was strengthened by the recruitment of the first qualified Air Conditioning Engineer holding Corporate Membership of the Institution of Heating & Ventilating Engineers, the late Alvin Leung Sr., who used to be the British Council Scholar at the National College of Heating & Ventilating Engineering, then worked with the contractor, Gibb & Livingston. Also, colleagues like W K Lee, Alan Lee, David Chu, K S Ng, SY Wong and John Watt were sent to attend the Associateship Course at the National College at different times. As the writer completed the institution examination of the Institution of Heating & Ventilating Engineers by private study, without need to go to the National College, he was offered to attend the Trane Training Course in the U.S.A.

In the mid 1965, at the sketch plan stage of the Princess Margaret Hospital, the Chairman of the Steering Committee was the Deputy Director of Public Work (Building), the late George Norton who noticed that in the project meeting, there was a member from the Architectural profession, a member from the Structural Engineering profession, but there were three members from the services, i.e. one from the electrical profession, one from the Air Conditioning profession and one from the Mechanical profession, and likely more to come. He first praised Bernard Roach for his full support of the project and jokingly enquired in a whisper whether the service sector could be represented by one member within the building boundary, for the sake of better co-ordination, communication and efficiency.

Bernard initially showed some doubt on the idea but promised that should a suitable project be available and a suitable engineer be identified, he would try it. Professorial Block at Queen Mary Hospital together with the writer was selected in 1966 and proved to be a success, paving the way forward with confidence.

The Name of Building Services Identified

In the late 1966, discussion between the British and Hong Kong Government on the Defense Cost Agreement began. Public Works Department was tasked to takeover all the construction and maintenance works within barracks and military camps, previously handled by the Ministry of Public Buildings and Works in Hong Kong. Within the camp boundary, the quartermaster used to deal with only one representative from each profession, and this tradition was preferred to be retained. Establishment of this new profession was therefore imminent. Among the several names proposed, Building Services was finally accepted because it meant Services within the Building Boundary.

The Birth of Building Services Engineering in Hong Kong

Heating and Ventilating Engineers was retitled the Chartered Institution of Building Services Engineers upon receipt of Chartered Status in 1976 when the Government of Hong Kong fully recognized its Corporate Membership as one of the qualifications for Building Services Engineers. The sister institution in the United States of America, the American Society of Heating, Refrigerating and Air Conditioning Engineers formalized the Hong Kong Chapter in 1984. In the Hong Kong Institution of Engineers, Building Services Engineering becomes one of the Disciplines for qualification and one of the Divisions as part of a learned society.

The Steady Growth of Building Services Engineering in the public sector

Before the 1967 Defense Cost Agreement, several camps had been run down and with the urge for air conditioning in all the military establishments and the need of accommodation for Gurkha soldiers, several camps had been refurbished with electricity supply strengthened with additional high voltage or medium voltage substations, overhead or underground distribution systems.

Air conditioning was installed to follow local comfort level. Fire services installations were converted into local standard. Sewage treatment plant was installed in a new Gurkha Quarter Complex. Re-assessment of water changes and quality in swimming pools in various camps were carried out. Complaint of low water pressure in certain area in camp was ratified after repair of cracked pipes and adjustment of pump heads. Fuel for catering service was converted into town gas or liquefied petroleum gas as electricity was inefficient and diesel oil was unfriendly to the environment. Liquefied petroleum gas became very popular in barracks and camps, started with bottles, and finally converted into bulk storage and distribution where town gas was not available. At the same time, remote penal institutions in Government were provided with LPG fuel for catering. Hot water was provided to barracks in police stations and fire stations. Existing diesel fired boilers and emergency generators were modified or replaced to contain noise and smoke emission.

The takeover of the military establishments exposed the importance of scales of provision, standard of acceptance in various services. Due to the inheritance of a comprehensive library containing all the standard specifications, particular specifications, scale of provisions, technical memorandums, reports, practice notes, safety and health codes, it was not too difficult to convince both the United Kingdom and Hong Kong governments to proceed with the installations acceptable to the military personals, yet commensurate with a best balance between user's welfare and the tax payers' aspiration in Hong Kong and United Kingdom during the initial phase when one British standard and one Hong Kong standard were actually in existence in the Building Services Branch. The matter had caused nightmare to the professionals, drafting and inspectorate colleagues in the industry.

Sustainable Growth of Building Services Engineering

As more standard specifications, particular specifications, operating and maintenance manuals had been produced for various services absorbing the best practice from United Kingdom and overseas, it was not long before the authorities appreciate that adherence to the latest practice and standard in Hong Kong was the best interest and the only option for all, thus eliminating the operation of two standards within the Building Services Branch. The work in

Building Service Engineering had thus been greatly extended in scope, with scales and standards greatly solidified and the documents produced become the easy reference of many international consulting, contracting and trading organizations.

Sustainable Growth in the Housing Sector and in the public sector

In public housing, Li Cheng Uk, So Uk, Choi Hung, Ping Shek, Won Tai Sin and later Oi Man were some of the well known estates completed at the time, especially when the Li Cheng Uk Estate and Victoria Park were each provided with a swimming pool complex to serve the people in the area. In the private sector, the relocation of the oil depots in the Lai Chi Kok area, closure of the Tai Koo Dock and Whampoo Dock had created development opportunities. Mei Fu Sun Tsuen, re-developed from the Mobil Oil Depot was one of the earliest estates. It consists of 99 residential blocks each equipped with four lifts with shoppers at podium and ground levels offered one of the biggest contracts for lifts at the time with Mitsubishi, one of the early Japanese lift manufacturers penetrating into the local market. Other lift manufacturers from Japan and other part of the world joint force especially in high rise office buildings like Connaught Centre, exposing Hong Kong to the latest technology even in high speed lifts.

Although Tai Koo Shing and Whampoo Gardens developed slightly later, they seemed better planned and equipped. Relocation of the Kowloon & Canton Railways Station to Hunghom together with the construction of the Hunghom Stadium created development opportunities in the Tsim Sha Tsui East. Construction of the Mass Transit Railway started, with stations above built for commercial and residential purposes. In these population centres, the welfare, safety and health of the general public were looked after extremely well by the latest Building Services Engineering Technology, such as artificial and natural lighting, air conditioning, fire services and smoke extraction in atriums, water features in gardens.

Due to the demand of cultural and sporting facilities in the Urban and Regional Councils, swimming pool complexes, town halls, cultural centre, museums were constructed. Building Services works became more diversified and sophisticated: modern filtration and treatment of pool water, insulation and isolation of noise and vibration, special lighting effects, advanced stage and broadcasting engineering, odour control at refuse collection points, to name but a few. To combat traffic noise in schools, some field tests and experiments were performed resulting in the provision of air conditioning to some affected schools. As practice makes perfection, all these developments had polished the skills and proficiency in the design, installation, operation, maintenance and management of Building Services Engineering in Hong Kong especially on integration, co-ordination and harmonization at all levels and at all stages of the development.

Forerunners in Building Services Engineering

All these projects could hardly be completed without personalities. Although some deceased, some emigrated or retired, many are still living in Hong Kong with most of the early entrants to the profession educated at the Hong Kong Technical College, the cradle of Building Services Engineers, under the influence of S Z Sung, Dr. Ching Yuen-Kai and William Millar to whom our earnest tribute and salutations must be respectively paid. In the public sector, credit must be given to the leadership given by the early Deputy Director of Public Works (Buildings), George Norton, Peter Shawe, Reginald Donnithorne and David McDonald in the seventies. In 1982 when the Public Works Department was defederalised to form seven works departments, strong support and encouragement were given by various Secretaries for Works, Nicky Chan Nai-Keong, James Blake and is now given by Lo Yiu-Ching, the Directors of Architectural Services, Joseph Lei, Paul Corser and the Directors of Electrical & Mechanical Services, Graham Osborne, Miao Chi and now Roger Lai.

Other key players were: in electrical installations, Pang Koon Sing, Ng Kan, and Arthur May in 1925-59, D. S. Hill, S. T. Yuen, Bernard Roach, Frank Au, Yuen Kee, George Armstrong & James Chiu from mid fifties to mid nineties. After the War, in mechanical installations they were, Peter Metcalfe, D. W. Walker, Ken Baker, Mark Mackenzie, Graham Osborne; in air conditioning, Edmund Lee, John Lim; in hospitals, Jim Parker; in the Airport, Ray Jenkins and Ko King Fai; in fire services, Jim Pickett & Arthur Gayne. They all had contributed, at various stages and levels, the most needed inputs in the development and growth of Building Services Engineering in Hong Kong.

Education in Building Services Engineering

Due to the lack of proper Building Services Engineering Courses in Hong Kong, government scholarships were offered to civil servants to take first degree course in the University of Strathclyde, second degree courses in the University of South Bank and other universities. A Working Party was formed in the mid-seventies, to advise the Hong Kong Polytechnic to start a Higher Diploma Course in Building Services Engineering under the leadership of the Past President of the Institution of Heating & Ventilating Engineers, Dr. Mike Marsden. Due to its popular demand, it was soon developed into a full time First Degree course, later extended into Part-Time mode, and Second Degree mode. In other Universities, Building Services option was made available in the Mechanical or Electrical Engineering stream, Higher Diploma, Post Graduate Diploma, or Second Degree courses were also developed in the City University and the Hong Kong University of Science & Technology. In education, special mention must be given to the Head of the Department, Professor John Burnett in the Hong Kong Polytechnic University for his continuous leadership in this field.

Honours' List in Building Services Engineering

The profession cannot be successful without the excellent supports from leaders in the industry, in the consultancy sector, in the contracting sector, the education sector, the trading sector and the public sector. Apart from key players mentioned before, many of them had served in more than one sector: Edwin Tao, Samuel Wong, L. T. Tao, John Buss, Ray Benhram, Derek Thorney, F.K. Hu, Norman Ludlow, Otto Poon, C. O. Synn, and many, many more unnamed heroes whose names were not listed due to space limitation who however had part-taken, supported and made substantial contributions in various events throughout these years, and who had served directly or indirectly in the Hong Kong Branch of the Chartered Institution of Building Services Engineers, the Building Services Discipline and Division in the Hong Kong Institution of Engineers, the Hong Kong Chapter of the American Society of Heating, Refrigerating and Air Conditioning Engineers, the Air conditioning Contractors Association, the Electrical Contractors Association, the Fire Services Contractors Association, the Lift Contractors Association and sister institutions like the Institution of Mechanical Engineers, the Institution of Electrical Engineers and the Institution of Fire Engineers, etc., etc., etc.

To Serve the Community with Building Services Engineering

Having provided the general public with Building Services at various comfort levels in the built environment, people's welfare, safety and health were never ignored by the Government whose engineers always introduce timely Ordinances to monitor the various services to ensure public health and safety after consultation with the industry concerned. Lift & Escalator Ordinance in 1961 was one of the early legislation to require all lifts and escalators in Hong Kong to be installed and regularly maintained by Registered Lift & Escalator Contractors, inspected and certified by Registered Lift & Escalator Engineers; then the Electricity Ordinance to require all electrical installations to be designed, installed and regularly maintained by the appropriate grade of Registered Electrical Workers, to be employed by Registered Electrical Contractors; Gas Ordinance to require all gaseous installations to be designed, installed and regularly maintained by Registered Gas Workers to be employed by Registered Gas Contractors; Ventilation Ordinance to require all air conditioning installations to comply with minimum fresh air requirements, adequate compartmentation to prevent fire spread; Fire Services Ordinance to require all fire services installations to be installed and regularly maintained by Registered Fire Services Contractors, and to comply with the Fire Services Code of Practice, especially in public entertainment establishments like restaurants, hotels and guest houses. Even Amusement Rides are carefully monitored to ensure public safety. In office buildings, government had commissioned a consultant to study and recommend the Overall Thermal Transmittance Value for use in Hong Kong.

To promote the conservation of energy and preservation of the environment, Building Services Engineers are working closely with allied Engineers in the development of district water cooling for air conditioning systems, energy saving tips, energy efficiency labeling for appliances, energy efficiency registration for buildings and promotion of renewable energy for use in Hong Kong. They are the back bone of the Energy Efficiency Office in government. Whilst indoor air quality was closely monitored by Building Services Engineers in the last two decades, outdoor air quality was not ignored in Hong Kong resulting in the replacement of diesel fuel in taxi, public light buses and lorries by liquefied petroleum gas providing more opportunities for Building Services Engineers in the Gaseous Stream. In addition, trading agencies in Hong Kong had banned the importation of air conditioning equipment operated with environmental unfriendly refrigerants for over a decade.

The Way Forward

Nowadays Building Services Engineers are in heavy demand in services within the building boundary who excels in efficiency, integration and co-ordination not only to satisfy the user's physiological and security needs, the safety, health and welfare of the general public but also in the conservation of energy and the preservation of the environment for the benefit of the future generations of Mankind.

Building Services Engineers must be pro-active to identify the needs of new Ordinances for early enactment by Government so as to establish a Hong Kong brand of Engineering Excellence in the dynamic life in this modern world city, to cultivate new services with a comprehensive standard to meet the modern day demand especially in high technology areas and to respond quickly to assist the community to eradicate and replace all the sub-standard services to the most up to date standard without overlooking the sustainable development of their own professional excellence and skill, so that the community is well served by this highly praised profession to whom the general public will have no hesitation to offer their fond support in return.

Acknowledgments

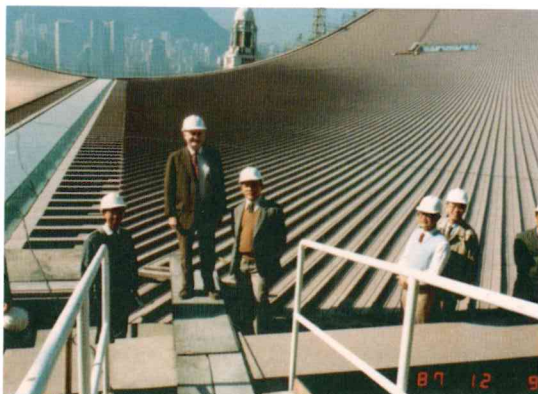
The writer is one of the most fortunate people who have been always assigned to the right position at the right time and is much indebted throughout his career, to his senior colleagues in the public and private sectors who gave their timely and un-reserved advices or instructions when leading, his level colleagues who harmoniously integrated and cohered well in all tasks and his junior colleagues who followed up thoroughly according to instructions when being led, without whose genuine leadership, co-operation and supports, there would be a totally different story.



Hong Kong Technical College before the demolition in June 1986 with Dr. Ching Yuen-Kai (Retired Principal)



Tuen Mun Hospital Topping Out Ceremony, 28th August 1986 with Graham John Osborne, Director of Electrical & Mechanical Services



Hong Kong Cultural Centre, site inspection on 9th December 1987 with Graham John Osborne, Director of Electrical & Mechanical Services



Signing Ceremony for a Consultancy Agreement on OTTV on 15th October 1990

Dinner Programme

- | | |
|-------|---|
| 6:30 | Cocktail Reception |
| 7:30 | Welcoming Speech by Mr. Victor Cheung
Chairman, CIBSE Hong Kong Branch |
| 7:40 | Speech by the Guest of Honour, Mr. Michael Suen, GBS, JP |
| 7:55 | Presentation of Fellowship Certificates |
| 8:00 | Presentation of Student Prizes |
| 8:05 | Presentation of Website Design Competition Award |
| 8:10 | Presentation of the CIBSE Challenge Cup |
| 8:15 | Dinner Starts |
| 8:45 | Toasting by Committee Members |
| 8:50 | A Bibliography of Building Services in Hong Kong
in the past quarter century |
| 9:10 | Dinner Continues |
| 9:15 | Entertainment |
| 10:00 | Lucky Draw |
| 10:15 | Dinner Ends |

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