The Chinese University Bulletin, an official publication of The Chinese University of Hong Kong, is published and distributed free to members and friends of the University.

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Cover by Mr. Tsang Hin Sing
Dr. Ma Lin to Stay On

The Council of the University announced that the term of office of Dr. Ma Lin as Vice-Chancellor has been extended for two years until 30th September, 1987.

Dr. the Hon. Q.W. Lee, Chairman of the Council, commended Dr. Ma on his valuable and outstanding contributions to the University during his Vice-Chancellorship. He particularly mentioned the smooth integration of the University following its reorganization set in motion by the Report of the Second Fulton Commission in 1976, and the successful build-up of the new Medical Faculty, which will turn out its first batch of graduates in 1986. Dr. Lee also said that the Council was very pleased to have Dr. Ma stay on for two years after the expiry of his present term of office on 30th September, 1985, when he would have reached the normal retirement age of sixty.

Dr. Ma was appointed to the Vice-Chancellorship in October 1978, succeeding Dr. Choh-Ming Li, the first Vice-Chancellor.

News in Brief

Council Membership
The Council, at its meeting held on 21st February, nominated the following as Council members from universities or educational organizations outside Hong Kong, each for a term of three years, upon the expiry of their terms of office on 31st May, 1984:
- The Rt. Hon. Lord Todd of Trumpington (Christ’s College, Cambridge)
- Dr. Clark Kerr (President Emeritus, University of California)

Committee News
* Mr. Chau Cham-son, J.P., has replaced Mr. Jose Meng-can Lei, J.P., as an ex-officio member of the Campus Planning and Building Committee upon his appointment to the Directorship of the Building Development Department of the Government.
* The Academic Equipment Grant Committee under the Administrative and Planning Committee (AAPC) has been reconstituted from 1984-85 as follows:

Composition
| Chairman: | Professor L.B. Thrower |
| Members:  | Dr. C.L. Choy |
|          | Professor Rance P.L. Lee |
|          | Professor D.J. Riches |
|          | Dr. Stanislaus Hu |
|          | Mr. D.A. Gilkes |
| Secretary: | Mr. Terrence Chan |

(All are appointed in personal capacity for one year.)

Terms of Reference
(i) Having regard to overall University policies on academic development and research, to advise the AAPC on the broad outline for using the academic equipment grant;
(ii) To make annual equipment fund allocations;
(iii) To formulate regulations and controls on the use of the equipment grant; and
(iv) To monitor the pattern of equipment grant use and its effectiveness, and to report to AAPC thereon.

NEWS 1
New EMSD Director

Dr. the Hon. Ho Kam-fai has been appointed Director of the Department of Extramural Studies (EMSD) with effect from 1st September, 1984 to succeed Mr. T.C. Lai, who will retire from the University after nineteen years of service.

Programme on Overseas Chinese Archives

A new Programme on Overseas Chinese Archives under the Centre for Contemporary Asian Studies, Institute of Social Studies has been established to collect data and conduct research projects on overseas Chinese communities in Southeast Asia in particular, and on a worldwide basis in general.

The Executive Committee of the Archives has the following membership:

Chairman:
Professor G.H. Choa
Pro-Vice-Chancellor, CUHK

Secretary:
Dr. C.Y. Chang
Lecturer of Government and Public Administration, CUHK

Members:
Dr. H.C. Kuan
Senior Lecturer of Government and Public Administration, CUHK
Dr. C.H. Chai
Senior Lecturer of Economics, University of Hong Kong
Dr. E.C. Chew
Senior Lecturer of Anatomy, CUHK
Mr. C.L. Huang
Senior Lecturer of Sociology, Hong Kong Baptist College
Mr. Shih Ta Lang
Lecturer of Marketing and International Business, CUHK

Funds of the Overseas Chinese Archives Foundation are managed by an independent Board of Trustees outside the University.

UPGC Visitation

The University and Polytechnic Grants Committee (UPGC) met in Hong Kong from 19th to 31st March and made its pre-grant visitation to the five subvented institutions.

The Committee visited the University on 21st March and held discussion sessions with the following groups: a. Vice-Chancellor and senior academics; b. subject groups by faculties; c. heads of administrative and central services; d. student services staff and student representatives; d. non-professorial staff.

The current UPGC membership is as follows:

Chairman:
The Hon. Mr. Justice T.L. Yang
Deputy Chairman:
The Hon. J.J. Swaine, Q.C.
Dr. D. Bethel (Director of the Leicester Polytechnic)
Mr. G.C.H. Cheng (Chairman, Taching Petroleum Co. Ltd.)
Dr. A.S.L. Chuang (Managing Director, Lambda Electronics Ltd.)
Mr. P.C.S. Deveson (Chairman, Inchcape (H.K.) Ltd.)
Professor I.S. Ewbank (Professor of English, University of London)
Professor David Greenfield (Dean of Medical School, University of Nottingham)
Professor C.B. Howe (Professor of Economics, School of Oriental and African Studies, University of London)
Mr. Andrew Li (Lawyer)
Sir Edward Parkes (Vice-Chancellor, University of Leeds)
Dr. B.W. Smith (Director, Royal Melbourne Institute of Technology)
Sir Charles Stuart-Harris (Emeritus Professor (Medicine), University of Sheffield)
Dr. C.J. Symons (Headmistress, Diocesan Girls' School)
Professor Wang Gung-wu (Professor of Far Eastern History, Australian National University)
Dr. R. L. Werner (President of the New South Wales Institute of Technology)
Dr. W.C. Winegard (Chairman of the Ontario Council on University Affairs)
Miss Eleanor Wong (Managing Director, Hong Kong Knitters Ltd.)

Secretary:
Mr. W.M. Bradley

TVB Supports Research Programme

The Centre for Hong Kong Studies of the Institute of Social Studies is launching a research programme on 'The Uses of Television and Other Mass Media in Hong Kong' with financial support from Television Broadcasts Limited (TVB) in the amount of approximately HK$460,000.

The programme aims at establishing an empirical basis for understanding the various ways in which television and other mass media may play an important role in the lives of the people of Hong Kong. It is hoped that the findings will contribute to a better understanding of the need of the public.
A brief presentation was held on 15th March, when Mr. Robert Chan, General Manager of the TVB, presented the cheque to the Vice-Chancellor.

The research comprises six projects conducted by eleven academics from social science disciplines: Sociology, Psychology, Social Work, Government and Public Administration, and Journalism and Communication; with Dr. Pedro Ng, Senior Lecturer in Sociology as programme coordinator. These projects include: (1) the role of television in the socialization of the young, (2) fictional television stories and the acquisition of values, (3) patterns of media use in relation to leisure needs and family communication, (4) television watching and living in confined environments, (5) the political role and functions of the mass media, and (6) roles and functions of television as perceived by television producers and government officials. Methods applied include questionnaire surveys and interviews, field experiment, and case studies.

Gifts from German Research Society
The Consul-General of the Federal Republic of Germany, Dr. Alfred Kuehn, visited the University on 22nd March and donated a collection of research periodicals in music to the University on behalf of the German Research Society (DFG) in Bonn, West Germany. The donation, which contains bound volumes of Melos, Die Musikforschung and Neue Zeitschrift für Musik dating from 1946 to 1975, was received by the Vice-Chancellor.

The German Research Society (DFG) has assisted the University's Music Department in the past in obtaining musical materials from Germany, and this latest donation is by far the largest in scope. It is expected to be particularly useful for faculty research in both Western and Asian music as well as for the graduate programme in Musicology.

Professorial Inaugural Lecture
Professor David P. Davies, Professor of Paediatrics, delivered his Professorial Inaugural Lecture, 'Harmony and Discord', on 30th March.

CU Students Won 4th Intervarsity Games and 2nd 'Varsity Challenge'
* The Chinese University of Hong Kong student team has won the championship of the fourth Intervarsity Games. Intervarsity Games is an annual event jointly organized by the Student Unions of the two local universities. The year's Games featured up to twenty-six sports events conducted from 15th to 19th January.
* The three-member Chinese University debating team captured the year's winning title at the second 'Varsity Challenge' staged on 25th March at RTHK's Broadcasting House. Miss Lam Mei-sau of the Department of Government and Public Administration also won the award for the best speaker. The University's team spoke for the motion 'The Urban Council should be scrapped now that district boards are fully operational'. Adjudicators for the debate were The Hon. Mr. Justice Li, The Hon. Maria Tam, Mr. Allen Lee, Dr. Daniel Tse and Mr. Chung King-fai. The event was transmitted live on television.

'Varsity Challenge' is an annual function first organized in 1983 by the Student Affairs Offices of the two local universities.

Li Ping Medical Library in Use
On 16th January the Li Ping Medical Library opened in the Prince of Wales Hospital. This is the clinical library for the Faculty of Medicine and the fourth branch library of the University Library System.

Located on the second floor of the Clinical Sciences Building, the Library occupies a total floor area of 900 square metres and carries a full range of approximately 900 journal titles and 5551 book/bound journal volumes in most clinical areas of medicine. Audio-visual software in film, slide, audio tape, and video tape formats will be a part of the collection. Pre-clinical books and journals will continue to be located in the University Library Building.

Interlibrary loan of photocopy articles is available to University faculty at the Prince of Wales Hospital or on the main campus. Information Retrieval Services (MEDLINE) are also available. The Medical Media Section, which will include medical photography, medical art, audio-visual, and television, will be set up later in the spring in the Prince of Wales Hospital. A lecture theatre with complete AV/TV capability will be available.

The new Library had been established with a generous gift of $1.5 million from Mr. Allan H.C. Li, Mr. Robert K.C. Li and their brothers, in memory of their father, Mr. Li Ping.

- G. V. S.
The Madam S.H. Ho Hostel for Medical Students was formally opened by Dr. and Mrs. S.H. Ho on 8th March, and over two hundred guests attended the ceremony.

The new hostel, located at the Prince of Wales Hospital in Shatin, was originally planned for sixty final-year medical students and financed by Government subvention. A generous donation of HK$4.5 million from the S.H. Ho Charity Foundation towards the project enabled the expansion of its facilities to provide residential accommodation for a hundred students.

At the opening ceremony, the Vice-Chancellor, Dr. Ma Lin, said, 'Three hostels of the University have come into being as a result of the generosity of the Ho family. The one at Chung Chi College is named after Mrs. S.H. Ho. The hostel for medical students within the hospital has been completed, thanks again to a donation of $4.5 million from the S.H. Ho Charity Foundation. Fully aware of the important contribution the Ho family has made to the University, we have named this new hostel once again after Madam S.H. Ho.' On behalf of the University, Dr. Ma thanked the Ho family and their foundation for their generosity and promised that 'the doctors we train for Hong Kong will, in appreciation of the support of the community, do their utmost to serve the people of Hong Kong well'.

Dr. S.H. Ho also addressed the gathering. He said, 'The success of Hong Kong in such areas as new towns and commerce and industry since the Second World War has been due in large part to the skills and ingenuity of the people of Hong Kong. That is why our community should give special attention to the training and development of our gifted young. In this respect, my family and I are more than delighted that we have been able to take part in this hostel project of The Chinese University of Hong Kong, an institution of higher learning committed to the task of training and development, with which we have had the pleasure of establishing very close links since the early days.'

The five-storey new hostel has a total of eighty single and double bedrooms, with a common room, a small library and a reading room on the ground floor. The building is presently housing the first class of fifty-seven clinical students of the Medical Faculty, and is expected to be used as hostel for final year and obstetric students.
Health and Sports Campaign

In view of the ever-increasing enthusiasm for sports and the popularity of health exercise and competitive sports, a ‘Health and Sports’ Campaign was launched on 5th-10th March, 1984 to introduce the concepts of sports science and sports medicine to students, teachers, coaches, physical educators, physical therapists, medical doctors, etc. It also aimed to encourage the application of sports science to maximize the benefits of sports to health and prevent and manage common sports injuries, and to promote mass participation in sports with safety. The campaign was jointly organized by the Physical Education Unit, the Department of Orthopaedic and Traumatic Surgery, the Department of Extramural Studies, the University Health Service and the Medical Society of the Faculty of Medicine.

The Campaign included the following events: an Exhibition on Health and Sports, a Seminar on Management and Prevention of Sports Injuries and a Conference on Local Researches in Exercise Science and Sports Medicine. In preparation for the Campaign, a survey on sports injuries was conducted.

The survey on sports injuries was conducted in September last year with sample subjects of 1714 students of the University, primarily freshmen. It is found from the survey that the need for management and prevention of sports injuries is not well recognized among the students, indicating that the concepts and application of sports science and medicine should be popularized. According to the survey, the five main categories of injuries are: abrasion, contusion, cramps, sprain, and strain. Incidence of severe injuries such as fracture, concussion, and heat stroke is low. The five sports most likely to cause injuries are: soccer, basketball, cycling, track and field, and swimming. About 50% of the injuries are self-treated and for 80% recovery took less than ten days.

The Exhibition on Health and Sports, sponsored by Mr. Wong Wah Sang and held from 5th to 10th March at the Sir Run Run Shaw Hall, covered the following themes: Sports medicine, Physical fitness, Reward of exercise, Nutritional requirements, Sports injuries, Prevention and Management of injuries, and Result of the survey on sports injuries. Also on display were various protective aids and a first-aid kit. Thirty students from the Medical Faculty volunteered as demonstrators at the Exhibition. The Exhibition attracted 3,000 visitors altogether, including students from seven secondary schools from the Shatin and Tai Po districts, who were invited to come.

The Seminar on Management and Prevention of Sports Injuries, held on 5th March at the Science Centre, was attended by 180 participants. Dr. K.M. Chan of the Department of Orthopaedic and Traumatic Surgery, Faculty of Medicine talked on the management aspects of sports injuries while Dr. F.H. Fu of the Physical Education Unit spoke on the preventive aspects. Professor H.Z. Xian of the Beijing Institute of Physical Education delivered a talk on her views on and experience of traditional Chinese practice in sports injuries.

The Conference on Local Researches in Exercise Science and Sports Medicine, held on 10th March at the lecture theatre, Space Museum, was sponsored by The Amateur Sports Federation and Olympic Committee of Hong Kong. Mr. A. de O. Sales, Chairman of the Olympic Committee, delivered the opening address. Speakers of the Conference included professors and lecturers of the Medical Faculty and School of Education of the two local universities, a professor from Beijing Institute of Physical Education, physiotherapists and investigators of researches on physical fitness. The following papers were presented:

- Population Density and Physical Fitness;
- Relation of Physical Fitness to Past Participation in Sports;
- Sports Injuries Survey;
- Psychological Traits of Athletes;
- Physiological Profiles of Athletes;
- Super Marathon;
- Uses and Abuses of Drugs in Sports;
- Rehabilitation of Sports Injuries — Practice and Research;
- Management of Common Sports Injuries — Traditional Chinese Practice in Acupuncture;
- Future of Sports Medicine in Hong Kong.
Implementation of Provisional Acceptance Scheme in 1985

Starting from 1985 there will be three channels for admission to the University: Provisional Acceptance Scheme, Hong Kong Higher Level Examination and Hong Kong Advanced Level Examination.

Applicants who apply for admission to a course of study leading to a Bachelor's degree under the Provisional Acceptance Scheme shall have satisfied the minimum University entrance requirements:

1. currently be enrolled in Middle 6 or Form 6 in school;
2. have satisfied the entry requirements of the Hong Kong Higher Level Examination prescribed for the category of school candidates; and
3. have sat for at least seven Hong Kong Certificate of Education Examination subjects in one sitting of the examination at the end of Middle 5 or Form 5.

In addition, they shall satisfy any additional requirements for admission into the Faculty or Stream which they intend to enter.

Results of the Hong Kong Certificate of Education Examination obtained at the end of Middle 6, Form 6 or Form 7 are not acceptable for the purpose of applying for admission under the Provisional Acceptance Scheme. Students who have taken the Hong Kong Higher Level Examination or the Hong Kong Advanced Level Examination are also not eligible to apply for admission under the Provisional Acceptance Scheme. (They should apply through the Hong Kong Higher Level Examination or the Hong Kong Advanced Level Examination channels.) Two-year sixth-formers who do not intend to enrol at the end of Form 6 should not apply for admission under the Provisional Acceptance Scheme but should apply with Hong Kong Advanced Level Examination results at the end of Form 7 instead. Form 7 students should also apply through the Hong Kong Advanced Level Examination channel.

Applications for admission under the Provisional Acceptance Scheme will normally be made between mid-September and early October preceding the year in which formal admission is sought. Short-listed applicants will be interviewed in late December and early January by teaching staff of the Faculties or Streams in which they have indicated preferences for enrolment. Provisional offers will be granted to qualified applicants in February or early March. Those who have accepted the provisional offers will be required to indicate their preferences for the subjects which they wish to pursue as Potential Majors within the Faculties or Streams which give them the provisional offers.

Applicants from the one-year sixth-form stream who accept the provisional offers and obtain Grade E in at least five subjects (including Chinese Language and Literature and English Language) in one sitting of the Hong Kong Higher Level Examination which takes place in the following April will be granted formal admission in July. Applicants from the two-year sixth-form stream who accept the provisional offers will be required to attend the Final Scholastic Assessment to be conducted by the University in early July. Those who obtain a pass in five papers in the assessment exercise (including Chinese Language and Literature on current year Hong Kong Higher Level Examination Syllabus, Use of English and three other selected Hong Kong Advanced Level Examination subjects which they are studying in school) will be granted formal admission in July. Applicants who are qualified for formal admission are required to enrol in the year the offers are made.
Profile of 1983 Freshmen

The University admitted 1,343 undergraduates in September 1983. This year, the 'Survey of the First Year Students', conducted by the Office of Student Affairs, has a high response rate of 95.2%.

The average age of the students is 19, which is similar to that of last year. Again, the male average is slightly higher than the female average (19.1 and 18.9 respectively). About two-thirds of the freshmen of the Faculty of Arts are female, while the Faculties of Science and Medicine have less than 20% female. The overall male to female ratio is about 2:1. Close to 72% of the freshmen profess no religious beliefs. Those who do are mainly Protestants (20.5%) and Catholics (6.2%).

There is a great diversity in the types of schooling that the students undertook before entering university. Roughly 29% of the students attended Chinese Middle Schools, and 70% Anglo-Chinese Schools. About 30% had completed Middle 6, 55.6% Form 6, and 18.2% Form 7. Some 17.1% of the students had undertaken private studies. In general, the students (98.7%) were active in extra-curricular activities at school and 68.3% had travelled outside Hong Kong. Approximately 65% of the students had had some form of paid employment prior to entering university.

The educational standard of parents is slightly higher this year than last year: 9.5% of the fathers and 4.5% of the mothers have received education at tertiary level. 24% of the fathers and 15.6% of the mothers were educated to secondary standard. About half of the parents have completed primary school education. As for parents’ occupations, 20.6% of the fathers are semi-skilled workers, 12% are service workers and 11.4% are store-owners or merchants, while 14% of the fathers are in retirement. An overwhelming majority of the mothers (65.7%) are housewives, while 18% are being employed as semi-skilled workers. The Survey revealed that 38% of the students came from families with a monthly income of less than $4,000, while the average monthly household income of the students surveyed was $5,345. The average monthly household income per head was $920.

The majority of the students (60%) live in Kowloon, 22.4% in the New Territories, and 17.1% on Hong Kong Island. More than half of them are from the public housing estates, with a living area of 2.6 to 5 square metres per person. This suggests that a sizeable proportion of the students (41.1%) live and study in rather congested conditions. The average size of household of the students is 5.9 persons. About three-quarters of the freshmen expressed a need for campus accommodation. Another reason for such a need is the time taken to commute between campus and home (more than two hours for 60% of them) and the electrification of the Kowloon-Canton Railway did not seem to have shortened the commuting time.

About 64% of the students expected to obtain some form of financial support for university education from Government grants and loans, and that about 41% of them intended to take up summer or part-time jobs to help provide for their education expenses. About three-quarters of the students indicated that they had to rely on their families for partial or full financial support.

According to the Survey, the three most frequently quoted reasons for pursuing a university education are: to seek knowledge (90.8%), to experience university life (61.1%) and to contribute to society after graduation (60.5%). About 94% of the students selected their major field of study because of their interest in the subject. Roughly 67% of them believed that study in their chosen field would lead to promising career prospects. Almost one-quarter of the students reported that they were somewhat influenced by their parents, friends or relatives in their choice of the major field, while 7.4% of them claimed that they had no choice other than what they had opted for.

The majority of freshmen expected a university education to provide them with specialized training in their subjects of interest and assistance in perfecting their characters. About 76% of the students think that an all-round education is very important. Almost half of the students would like to choose teaching as their career, while 36% of them are interested in the Administration and Management field. One-third of the students prefer to be engaged in research work. Other preferred career fields include Mass Communication and Banking.

Students surveyed claimed that they were most competent in adaptability, self-confidence, analytical ability and Chinese communication skill. On the other hand, they indicated deficiency in English communication skill, social skills and creativity.
Reasons for pursuing a university education

Note: Each student was required to choose a maximum of three from the options listed as his major reasons for pursuing a university education.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>To seek knowledge</td>
<td>90.8</td>
</tr>
<tr>
<td>To experience university life</td>
<td>61.1</td>
</tr>
<tr>
<td>To contribute to society after graduation</td>
<td>60.5</td>
</tr>
<tr>
<td>To improve career prospect</td>
<td>54.2</td>
</tr>
<tr>
<td>To fulfil expectation of others</td>
<td>7.6</td>
</tr>
<tr>
<td>Other reasons</td>
<td>0.4</td>
</tr>
<tr>
<td>No special reason</td>
<td>0.5</td>
</tr>
</tbody>
</table>

What students expected a university education to provide

* Help in developing one's sense of social responsibility; help in improving one's analytical thinking.

<table>
<thead>
<tr>
<th>Expected Outcome</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Help in perfecting one's character</td>
<td>91.2</td>
</tr>
<tr>
<td>Specialized education</td>
<td>86.7</td>
</tr>
<tr>
<td>An all-round education</td>
<td>76.0</td>
</tr>
<tr>
<td>A foundation for further academic pursuits</td>
<td>69.7</td>
</tr>
<tr>
<td>An experience of corporate life</td>
<td>59.0</td>
</tr>
<tr>
<td>Vocational training</td>
<td>38.3</td>
</tr>
<tr>
<td>Others*</td>
<td>3.9</td>
</tr>
</tbody>
</table>

Expected sources of financial support for university education

<table>
<thead>
<tr>
<th>Source</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>75.2</td>
</tr>
<tr>
<td>Government grant and loan</td>
<td>63.8</td>
</tr>
<tr>
<td>Part-time/Summer job</td>
<td>41.4</td>
</tr>
<tr>
<td>Others</td>
<td>1.9</td>
</tr>
</tbody>
</table>
Pollution and Environmental Studies

Environmental problems — air, water, solid waste, noise, occupational health and safety — and their control have attracted general interest in recent years. We have, in an attempt to examine these problems and their ramifications, invited the following environmental scientists and other experts of the University to share their views with us:

Dr. Chan Kwong-yu
Department of Biology
Dr. Chan Ying-keung
Department of Sociology
Professor S.T. Chang
Department of Biology
Mr. Peter K.N. Chen
Department of General Business Management and Personnel Management
Dr. L.S. Chuang
Department of Physics
Professor S.P.B. Donnan
Department of Community Medicine
Dr. S.L. Hsu
Department of Geography
Dr. Paul Kwong
Department of Sociology
Dr. Lam Kin Che
Department of Geography
Dr. O.W. Lau
Department of Chemistry
Dr. Ken W.K. Liu
Department of Anatomy
Dr. Peter Man
Department of Sociology
Dr. K.K. Mark
Department of Biology
Dr. T.C. Tan
Department of Community Medicine
Dr. Susanna T.Y. Tong
Department of Geography
Dr. M.H. Wong
Department of Biology

What role do environmental studies play in modern society?

K.C. Lam:

Modern societies all over the world are increasingly harassed by pollution and other resource problems. Environmental Studies can help us to recognize, evaluate and analyse environmental issues of current or likely future significance; and to contribute to the formulation of environmental policy and the development of appropriate environmental management strategies.

Hong Kong is facing various pollution problems. Could you enlighten us on how serious these problems are and how they are affected by the rapid industrialization and urbanization of Hong Kong?

P. Man:

By all accounts, we have our share of environmental problems in Hong Kong. But we do not know for sure how serious these problems are. We know, from various reports, that our rivers and beaches are polluted, that our air is foul in the urban areas (and increasingly so in the New Towns), that noise levels under our flight path are becoming more and more unbearable, that highly caustic fumes are destroying vital electronic equipments at Kai Tak Airport, that our oyster industry is being seriously affected by water pollution in Deep Bay, that our children are being affected by lead poisoning from motor vehicle exhaust, incinerators and power stations. But we lack information on their exact nature.

While rapid urbanization and industrialization have contributed their share to environmental pollution, our laissez-faire economic policy and the public’s lack of awareness are also responsible for our current state of affairs. In the name of economic development, the government has been too ‘sympathetic’ to our polluting industries. At the same time, the public is largely unaware of the effects of pollution,
partly arising from a lack of such information.

K.C. Lam:

Of the various environmental problems confronting Hong Kong, noise is the most critical. Hong Kong is the noisiest city in the world and is becoming more so. Air pollution was rather bad in the sixties but is gradually improving. Water pollution has long been a matter of considerable concern but will soon be put under control by the implementation of the Water Pollution Control Ordinance and the construction of sewage treatment works. In the years to come, Hong Kong will find it more and more difficult to dispose of the wastes properly. This is due to the increase in waste generation as a result of increasing affluence, the lack of space for controlled tipping, and the production of hazardous and difficult wastes consequent upon industrial diversification.

S. Donnan & T.C. Tan:

In societies undergoing rapid industrialization and urbanization, such as Hong Kong, there is an inevitable tension between economic development on the one hand, and nuisances and hazards to health on the other. Increased opportunities for employment and improved quality of life have to be balanced against unwanted and yet to some extent unavoidable nuisances and hazards to the health, safety and well-being of the workers, their families, and also the local community.

K. Liu:

Air pollution is a prevalent problem of modern societies. Not only does it affect the health of living organisms, but it also impedes the commercial and industrial development. The fact that Hong Kong is densely populated and that its motor vehicles and poorly equipped small-scale factories are continuously releasing all types of exhaust gas, aggravates the problem of air pollution.

S. Tong:

Indeed, Hong Kong is a densely populated area with its commerce and industry developing rapidly. However, well formulated strategies for environmental management were not implemented until the 70s; hence many pollution and conservancy problems have emerged. The saving grace is that Hong Kong is predominantly a commercial society and even in its process of industrialization, light industries take priority over heavy industries, which are usually major sources of pollution. Therefore, its pollution problem is not as serious as those heavy industrial cities. Besides, Hong Kong being an island, natural disposal of wastes into the sea is possible; thereby reducing the health hazards to local residents.

K.K. Mark:

Obviously, the rapid increase in population and industries has brought with them many pollution problems. Just take water pollution as an example. Sewage treatment plant is fairly new to Hong Kong, and even the major residential areas of the Hong Kong island and Kowloon do not have any. Each day we are in fact pouring into the surrounding sea and streams sewage produced by five million people, five hundred thousand pigs, one to two millions chickens, ducks and pigeons. So our harbours and streams are extremely polluted. Fortunately, we have very heavy rainfall to flush the streams, very strong tidal current to flush the harbours and even favourable winds to blow the smoke away. Otherwise we would have been in a cesspool.

S.T. Chang:

Organic wastes exist in abundance in both rural and urban areas. They are produced in every household and also in agriculture and industry. When carelessly disposed in the surrounding environment by dumping or burning, these wastes are bound to lead to environmental pollution and become consequently health hazards.

K.Y. Chan:

Most of the sewage treatment plants in operation in Hong Kong are of the ‘secondary’ type, which means that only the organic matters and living microorganisms are being removed from the sewage, but large quantities of inorganic compounds such as phosphates, ammonium and nitrates still remain in the treated sewage effluent. These inorganic compounds are potential pollutants since they are the basic nutrients of algae and phytoplankton. The usual practice is to discharge the treated sewage effluent...
directly into the coastal water. In areas where tidal exchange is limited or slow, algal and phytoplankton blooms occur as a consequence of this treated sewage disposal and eventually lead to water pollution problems in these water bodies. The increasing pollution in Tolo Harbour is a typical example which illustrates the point. It has been reported that under certain circumstances, the sudden increase in the amounts of inorganic nutrients is one major factor leading to the occurrence of ‘red tide’ which causes heavy mortality of fish and bivalves.

**Y.K. Chan:**

How to conserve the living environment of a densely populated metropolitan is a difficult problem to solve. Although the adaptability of human beings to a crowded living environment is said to be better than other animals, social and psychological effects of crowdedness on man have to be confirmed by research. Adaptability depends a lot on the social and cultural background of every individual group. Nevertheless, over concentration of population and crowdedness is invariably a bad thing.

Pollution and public hygienic problems are often closely related with rapid population increase. In densely populated areas, not only will the room for movement be limited but also it will be difficult to avoid all kinds of unnecessary or unwanted social contacts, and the chances for conflicts will thus be increased.

In such a small and crowded place like Hong Kong, the buildings are bound to be high-rise. In multi-storey buildings, the density problem is coupled with the ‘high-rise problem’. If the people stay at home more often because they are living on the upper storeys, then they would spend more time in the limited space of their home, and the effects of high density on them will be more serious.

Therefore, as we pay more attention to the protection of the natural environment we should also be more concerned about the man-made environment — the high-rise and increasingly densely populated living environment.

**In Hong Kong, what steps have been and could be taken to control pollution and improve its environment?**

**K.K. Mark:**

Although Government has taken some steps to control pollution, one of them being the laying down of some legislation, a lot more need to be done and to be done quickly. Environmental protection is expensive and needs coordination, and has to be initiated and pushed by the Government. Academics of both local universities have conducted some surveys to give a better understanding of the situation, thereby helping the Government to formulate its policies and draw up plans in this respect.

**K. Liu:**

As a result of the rising educational standard of Hong Kong people, there is an awareness of air pollution problems. In the late 70s, the Government set up a special task force to manage air pollution problems and established fixed or mobile stations to collect data on the pollutants. Such surveys have also been conducted by non-governmental consultants.

**K.C. Lam:**

Within the Hong Kong Government machinery, environmental protection is vested in the Environmental Affairs Division of the Government Secretariat. This Division is responsible for the overall formulation and coordination of government policy relating to the environment, such as land use, transport, urban services, new town development and pollution control. The day to day environmental protection work is organized into a two-tier structure comprising a central nucleus of specialists, the Environmental Protection Agency (EPA), and a series of control units in various government departments. Apart from being responsible for developing policy for environmental protection and overseeing the implementation of environmental legislation, the work of EPA also involves establishing quality objectives, long-term monitoring of environmental quality and assessing and advising on the impact of major new developments. Pollution control units in various government departments are responsible for enforcing regulations, issuing licences and providing surveillance and control over individual discharges and emissions.

**S. Donnan & T.C. Tan:**

Discomfort, disability, disease or even death arise from accidents at work or from work-related
diseases. In Hong Kong at present, accidents at work are the most serious problem, especially affecting the construction industry. The importance of diseases arising from work (as opposed to accidents) is less certain and is difficult to measure. Nevertheless the number of officially recognized occupational diseases for compensation purposes in Hong Kong was recently increased from twenty-one to thirty-seven categories.

The Labour Department jointly with the Medical and Health Department and the Health and Welfare Branch are responsible for the administration, enforcement and coordination of all matters relating to workers' safety, health and welfare in Hong Kong. The Labour Department has fourteen divisions, among which are the Factory Inspectorate (for safety), the Labour Inspectorate (for employment conditions), Employees' Compensation, and the Occupational Health Division.

P. Chen:

In the industrial sector of Hong Kong, industrial pollution control is mainly dealt with by the Labour Department. An Assistant Commissioner heads a number of divisions and units which directly or indirectly help control industrial pollution and deal with the problems caused by pollution. The work of the Factory Inspectorate Division includes the inspection and investigation of factories and work sites for air and noise pollution control. The Air Pollution Control Division is responsible for air pollution control in the external environment of the factories and work sites. The Occupational Health Division has its Occupational Medicine Unit (OMU) and Occupational Hygiene Unit (OHU). These units are responsible for specialist investigations into and control of pollution problems in the factories. The OMU is mainly for the monitoring of the work environment. There is also an Employees' Compensation Division which has an Employees' Compensation Unit and a Pneumoconiosis Compensation Unit. The Division handles cases which involved employees who have been affected by pneumoconiosis and other related occupational diseases.

The Department carries out investigations and inspections in factories to make sure that the factories are following the pollution control regulations set for the industrial sector. The factory inspectors give advice to factories concerning the methods of pollution control. The Department also carries out environmental and biological monitoring and survey work. The field survey work includes atmospheric monitoring on more than forty kinds of industrial chemicals, ventilation surveys on general ventilation and local exhaust, thermal surveys, noise surveys and lighting surveys. The Department also carries out laboratory analysis work. This includes air-pollution monitoring programmes on several chemicals and other pollutants such as sulphur dioxide, sulphur trioxide and smoke.

P. Man:

In controlling pollution and improving its environment, the Government can play a much more active role in formulating new laws, in educating the public, and in funding more research on the environment. First, the Government should formulate and implement more environment-related laws and regulations. Such laws should aim at an 'input' approach rather than an 'output' approach in pollution control. Right now, almost all the attention has been focused on the output approach, i.e., 'given the amount of pollution, what can we do to get rid of the output?' A more effective approach is to ask the question why so much matter and energy flow into the system in the first place and devise ways of preventing the release of effluents into the environment. A strong regulatory agency has to be set up, and the Environmental Protection Agency could be strengthened to fill such a role. Environmental Impact Statements must be filed before any large-scale projects, public or private, are approved. Industries (a major source of pollution in Hong Kong) should be encouraged to produce less "externalities" in their production process, perhaps with the incentive of tax write-off in the purchase of pollution-control equipments.

Secondly, public education on the effects of pollution is urgently needed. The Government has not done enough in the education of the public in terms of environment protection. People tend to be lethargic about fighting pollution partly because they lack adequate information on the adverse effects of pollution. Most people know that polluted air makes their clothes dirty, but they are unaware of the much more serious consequences of air pollution (such as the relationship between air pollutants and most
respiratory diseases). Environmental education can start as early as at the primary geography and social studies syllabi. If people become better informed of the hazards of environmental pollution, they will be less willing to tolerate a polluting environment.

Thirdly, more systematic research on environmental pollution and protection should be carried out in Hong Kong. Currently, we lack precise information on the effects of various types of pollution in Hong Kong. Findings from research carried out elsewhere obviously cannot be applied to the local scene without any modifications. For instance, we need accurate data to answer such questions as: How much pollution is there? What are their respective long-term and short-term effects on human health and properties? Is people's environmental perception changing? In what ways? What coping mechanisms are being utilized to deal with polluted environments? What price is people willing to pay in exchange for a less polluting environment? These are some of the questions that could be explored by natural and behavioral scientists through systematic research. Such projects could be undertaken by the Government or in conjunction with academic institutions. If the Government is serious about environmental protection, they should give it a high priority in governmental expenditure.

What research have you carried out in the area of environmental studies or the utilization of wastes?

S. Donnan & T.C. Tan:

In the Department of Community Medicine, the majority of our research at present relates to aspects of occupational health, which focuses on the tension between economic development and health. Our interests and current research relate more to pollution and other problems within the work-places than to pollution outside the work-places. We are involved in assessing air and noise pollution inside many factories in Hong Kong, both small and large, and also in assessing general effects of working conditions on both workers and their children. One of our major research projects is a health and environmental surveillance programme in a large factory, which we hope will help to establish a model for cooperation between management, workers, and occupational physicians and hygienists in Hong Kong.

L.S. Chuang:

Our studies are measurements of the trace elemental level of human head hair samples taken from eleven Chinese residents of Hong Kong and of air particulates in various parts of Hong Kong, carried out a few years ago. (It has been demonstrated that tissue or substrate, such as hair, may serve as a fairly reliable indicator of contamination of man by the corresponding pollutants, if good controls of the measurements could be achieved.)

In our studies, absolute neutron activation analysis and Ge(Li) gamma-ray spectrometry were applied in the determination of the trace elemental level. In the first study, the amount of 2.77 ppm mercury shown in the result of Hong Kong human head hair, as compared with all the other samples of various national, socio-cultural and environmental background, indicates too high a concentration of mercury contamination of the environment. There is clearly a need for concern towards the problem of environmental pollution of the local community if the provident highest acceptable limit for mercury in fish, issued in U.S.A. and Canada in 1970, of 0.5 ppm is taken as a reference. In the second study, it was found that all average concentrations of trace elements of air particulates in residential areas are lower than those in industrial areas and heavy-traffic areas. High average concentrations of cobalt, chromium, manganese and zinc are found in industrial areas, a high average concentration of bromine is found in heavy-traffic areas. Comparing the air pollution level of Hong Kong with that of other cities, such as East Chicago, New York, Toronto and Santiago, it is found that the concentrations of bromine, cobalt, chromium and zinc are rather high in Hong Kong. The concentration of mercury of air particulates in Hong Kong is noticeably higher than in other cities. This is in consistency with the result found from the hair samples taken from the residents of Hong Kong.

S.T. Chang:

Wastes are resources which are out of place and their proper management and utilization would lead to further economic benefit. Our research involves converting wastes through microbial activities into food protein and at the same time reducing the problem of waste disposal and minimizing environmental
pollution. Hong Kong has a lot of solid wastes, some of which could be made use of in the mushroom industry. Before 1969, local mushroom growers could supply only about 7% of the total local consumption of the straw mushroom. The rest were imported from Thailand, Taiwan and Mainland China. In 1971, cotton wastes were first used to grow straw mushroom, and by 1982, local production of the mushroom has reached 74% of the total local consumption. Recently we have developed a new synthetic log consisting of sawdust and used tea leaves to grow Lentinus mushroom. It is estimated that production of sawdust and used tea leaves in Hong Kong is about 60 tonnes and 64 tonnes respectively every day. Hong Kong also produces about 400 thousand tonnes of cracked wood from the building industry and about 10 thousand tonnes of horse manure from the Royal Hong Kong Jockey Club every year. These solid wastes could be used to grow different kinds of edible mushrooms.

K.Y. Chan:
My own research interest is on the recycling of liquid effluent, particularly domestic sewage effluent in Hong Kong, with the final goal of turning the potential pollutants in the sewage effluent to edible single cell protein on the one hand, and purify the effluent for possible reuse on the other.

We can make use of the inorganic nutrients in the treated sewage effluent in a well controlled system to produce low-cost single cell algal protein for mariculture and livestock feed. The idea involves the selection and cultivation of some unicellular algal species rich in protein content in the treated sewage effluent, so that food protein can be produced and at the same time the levels of inorganic phosphates, ammonium and nitrates can be greatly reduced from the effluent, which can then be considered as 'chemically and biologically clean' for direct discharge into the marine environment. The algal protein can then be provided for mariculture utilization.

Today we have been able to select one algal species which can serve the dual purpose of waste water purification and waste recycling through the production of algal protein from sewage effluent. This is an unicellular green alga, Chlorella, which has a protein content of 51% (dry weight). With a retention of eight days in treated sewage effluent, the cells can remove up to 98% of phosphate, 86-100% ammonium and 98% of nitrates from the sewage effluent. Replacement of up to 30% of the fish meal by the dried algal cells as fish feed has been quite successful in the cultivation of silver carp.

At present, we are searching for other possible algal species which have even higher protein content for research purpose. On the other hand, we are also screening algal species for those that can absorb the heavy metal 'cadmium' for possible removal of cadmium from sewage effluent containing high levels of this metal.

M.H. Wong:
My research interests include pollution ecology, bioassay of pollutants and recycling of waste materials (animal manure, sewage sludge, refuse compost and food processing wastes). We have involved in an ecological survey of Gin Drinkers’ Bay landfill to study the effects of methane and leachate on soil characteristics and plant growth, for a period of two years.

Apart from chemical analysis, bioassay of pollutants can provide additional information on their effects on the aquatic biota for the protection of the aquatic environment.

Recycling of waste materials does not only mitigate part of the pollution problem but also reutilizes the inherently rich plant nutrients (i.e. nitrogen and phosphorus). Research projects have been conducted using these wastes for algal growth, agricultural application (as soil conditioner/fertilizer), supplementary feeds for freshwater fish, and biogas production. Experiments related to composting of pig manure under different environmental conditions are being carried out in order to turn it into a more valuable product.

How is the level of pollution measured?
O.W. Lau:
In measuring the level of pollution, we should pay special attention to the following: (1) the sample has to be a representative one; (2) sample analysis has to be carried out by trained personnel; (3) proper procedures have to be followed to determine the degree of contamination and account has to be taken
K. Liu:  
There are different states of air pollutants: gaseous state, such as carbon dioxide; solid state, such as most particulates; and a combination of the two, such as the vaporized organic or inorganic matter coated on the surface of the particulates. These aerosols, in different states and of different sizes, are suspended in the air; and the smaller the particle size and the further their dispersal, the greater their chance of being inhaled into the respiratory system and thus the greater their hazardous effects on the alveolar region of the lung. In 1983, respiratory diseases were one of the three major groups of diseases in Hong Kong. Since the pollutants are of different states, the methodologies and instrumentation for measurement are different. Basically they measure the physical characteristics (e.g. mass, size, shape, number and electrical charges) and the chemical compositions (e.g. organic or inorganic contents).

At Daya Bay a nuclear power plant is to be constructed. What possible impact will it have on the environment of Hong Kong?

L.S. Chuang:  
With nearly 3000 civilian reaction years of operation experience and with nearly 10% of total world electricity generation coming from nuclear energy, safe operation of nuclear power plants is considered by many to be possible on the basis of existing regulations and design principles. Nevertheless, I should like to provide the following information to help the general public to be on their guard against mal-operation of a nuclear power plant.

The advantages of a nuclear power plant as a source of power must be seen in the context of:

(i) The protection of the operators and maintainers of the power plant;
(ii) The safe treatment and disposal or storage of the enormous quantities of radioactivity produced as a result of nuclear power generation;
(iii) Achieving an acceptably low risk of injury to the public in the event of a reactor accident.

These problems can be solved to a reasonably satis-
While site emergency can be controlled with relative ease, a public emergency would be a serious problem to solve.

S.I. Hsu:

Two-thirds of the total energy produced by a nuclear reactor are usually wasted, leaving one-third for power generation. The large amount of waste heat is normally discharged through air or water. From the geographical position and climatic condition of Daya Bay nuclear plant, it is estimated that it will install an once-through water cooling system — large quantity of sea water is pumped into the condenser and after absorbing the heat is discharged into the sea. The fact that Daya Bay is an enclosed bay makes water exchange with the surrounding areas difficult. The sea temperature within a few kilometres of the plant will of course be raised noticeably. This will have considerable effect on the ecology there.

The rising of the sea surface temperature will result in frequent fog, especially in winter. The saturation point of cold air is lowered and the warm sea surface will provide adequate vapour for the formation of fog. Foggy weather will affect sea transport.

The authorities concerned should therefore study thoroughly and get a full picture of the degree of these impacts before setting up the plant.

As for the suspended particulates and the radioactive substances discharged by the plant, it is less threatening because it is about fifty kilometres away from Hong Kong and much of them will be dispersed before reaching Hong Kong. Hong Kong will only be affected by these pollutants in winter when the northeast monsoon blows but in summer when the southwest monsoon prevails, it will be free from such threats. The downwind concentration of airborne particulates can be estimated by the Gaussian Dispersion Equation. In light wind conditions and stable atmospheres, they are not easily dispersed, leading to high downwind concentration. In strong wind conditions and unstable atmospheres, effective dilution and dispersion lead to low downwind concentration.

From the wind-rose of the Hong Kong Royal Observatory, we know that east wind prevails in Hong Kong for about 40% of the time in a year, east northeast for 10%, north northeast for 8%. The east and northeast wind predominating for over half a year is also the wind direction that emissions from the Daya Plant will have the greatest impact on the health of Hong Kong citizens. In choosing the site of the plant and planning the exhaust system, the authorities concerned should take into consideration the undesirable effects certain wind directions and water current will have on the residents in the downwind area.

P. Kwong:

We should seriously contemplate the impact of the Daya nuclear power plant on the University, Shatin and Tai Po. From the map, we can see that although the nuclear plant is about fifty kilometres from Central, with the Lion Rock and Ma On Shan in between, it is only thirty odd kilometres northeast of this University. The only sight barrier to the plant are just low-lying hills of about two hundred metres. Since east and northeast wind prevails in Hong Kong over 50% of the time in a year, the University will bear the brunt of the diffusion of radioactive material from the nuclear plant.

The University, Shatin and Tai Po are surrounded by hills except in the northeast, so radioactive materials carried by wind and precipitations will be bottled in. Given the terrain of the area, their diffusion out of the valley will probably be slow, thereby increasing the likelihood of their settling down in the area, for example into the Plover Cove Reservoir.

The combined population of Shatin and Tai Po will be over one million within the next ten years. They will be two densely populated new towns. Considering the factors mentioned so far, we conclude that all districts in Hong Kong, Shatin and Tai Po will be the two most threatened areas by radiation from the plant. However, a definite statement on this matter cannot be made without thorough research into questions like the radioactive and the diffusion pathways of normal and accidental releases/leakages.

Daya nuclear plant is by no means small (in fact, it is almost the same size as the one at Three Miles Island), therefore it is necessary to study thoroughly and solve the following problems before launching the project: (1) the disposal of nuclear waste; (2) dispersal of the population of Shatin and Tai Po in case
of accident; (3) its general impact on the environment of Shatin and Tai Po. It is very likely that to solve all these problems, the cost for the project will escalate. In U.S.A. a few nuclear plants have already been closed down as a result of cost escalation and severe criticisms from the public.

**What type of industries will cause the most serious health hazards? Do local factories generally provide the necessary measures to protect the health of the workers and the environment?**

*S. Donnan & T.C. Tan:*

The extent of health and safety hazards and nuisances created by industries to the community at large is real yet complex to ascertain, as it involves measuring a combination of physical, chemical, biological and psycho-social variables.

Local industries operate in terms of economic gains and must do so within the confines of the respective legal requirements. Failure to comply with legal guidelines may endanger the lives and limbs of workers and members of the community, which is the most effective deterrent at present. However, a more positive inducement to industries to be concerned about the workers and their environment is that healthy workers and a safe working environment increase work productivity and result in economic gain. This is the chief selling point to industries of the occupational health and safety of workers. There is some evidence that many industries and factories, especially small enterprises, pay little regard to the safety of working conditions, or wane in enthusiasm after a short time.

*P. Chen:*

According to the Labour Department’s statistics, one of the most frequently occurred occupational diseases caused by pollution is silicosis. In 1981, there were 446 notifications of silicosis, and 191 cases were confirmed; in 1982, there were over 500 notified cases; and in 1983, there were also over 500 notified cases. Generally speaking, in Hong Kong, air pollution, a main cause of silicosis, occurs more frequently in quarries, construction sites and some factories which involve metal moulding or dyeing. The management of the factories or work sites in Hong Kong usually try to prevent or control pollution problems by having better designed funnels for letting out fumes, exhaust ventilation systems, or having workers wear masks or respirators.

Noise pollution occurs more frequently in construction sites, metal workshops and other factories such as weaving and spinning mills. The usual preventive measures taken in factories in Hong Kong are ‘noise isolation’ and ‘noise filtering’. In larger factories which have better financial support, the machines might have sound isolation devices or facilities to reduce the effects of the primary noise sources. And some factories would confine noise pollution in certain areas of the work sites by putting the machines in confined rooms. The factories would let workers wear ear muffs or ear plugs when they are at work.

*K.K. Mark:*

Tanning industries cause a high level of the heavy metal chromium in the streams. Electro-plating industries use a lot of cyanide (half a ton per year), which is discharged into the environment, and cyanide is extremely toxic. Film and photographic industries discharge a lot of silver, another form of heavy metal, into the environment. Electric companies and incineration plants generate a lot of smoke, which may cause air pollution.

I feel that Hong Kong industries are very far behind those of developed countries in providing protection for its workers and the environment. For one thing, most industries are for quick money, but protection of workers and the environment obviously is expensive and is cutting into their earning power. Besides, many managers are quite ignorant about the danger being brought about. Textile is one of our major industries, and it is regrettable that few managers ask their workers to use gauze masks to prevent the cotton or other fabric in the air from being inhaled into the lung.

**Compared with more advanced countries, is Hong Kong doing enough to conserve and protect its environment?**

*K.K. Mark:*

Comparing with more advanced countries like the United States and the United Kingdom, Hong
Kong is obviously trailing behind in social awareness, government spending in terms of GNP, degree of protection towards workers and the environment. It is only in the last five years that something has been done. However, we are better off than our neighbouring countries.

S. Tong:

When compared with more advanced countries, Hong Kong is not doing enough in the area of environmental protection. Laws and legislation concerning various aspects of pollution control are still in the drafting stage. Systematic research and in-depth study in environmental protection are also lacking. Moreover, coordination between the different government departments and private sectors in environmental management is generally poor.

K. Liu:

Although Hong Kong has just taken the first step, it is lagging behind such advanced countries as Japan, U.S.A. and Germany where environmental protection is a high priority. The shortage of more advanced equipment prevents us from having a good surveillance and analysis of the pollutants; the shortage of personnel prevents us from attending to different pollution problems. At the present stage, we need more specialists at the managerial level to carry out an in-depth study of the impact of pollutants on living organisms and on the environment, and to provide adequate data and information for the Government to draft laws and to control pollution problems.

How is the situation in China in respect of environmental protection?

S. Tong:

China has devoted much effort to environmental protection. Environmental Protection Bureaux have been set up in most counties to draw up legislation, enforce laws and carry out research. To achieve its goal of modernization, China has to develop rapidly her agriculture, light and heavy industry; consequently, attention has also been given to environmental protection. Since 1973 when the first National Meeting on Environmental Protection was held, much progress has been made in this direction. In the 5th People's Congress, environmental protection was included into its plan for social development, underlining the importance attached to environmental protection. The only setback is that officials of many departments and units are still ignorant of the nature and importance of environmental protection, thus unable to include it in their long-term planning strategies.

K.C. Lam:

The impression of the Chinese environment has changed significantly in the last ten years. In the first half of 1970s it was widely believed that the Chinese environment was a Maoist miracle — the country was clean and green, soil erosion was checked by massive afforestation, pests were effectively controlled by biological methods, and wastes were thoroughly recycled. However, since the downfall of the 'gang of four', a great deal of information concerning environmental problems in China was gradually unfolded. These reports show that environmental pollution in China is at least as serious as any large modernized nation. Unlike Hong Kong, environmental degradation in China is not a consequence of affluence, but is a result of industrial inefficiency. Fortunately, the Chinese society is so structured that wastes are efficiently recycled and reutilized. China's modernization programme will have considerable bearing on the industrial efficiency, waste generation and the social structure. How these would affect the environmental quality of China would be an interesting topic for research.

S. Donnan & T.C. Tan:

From our experience in Guangdong Province over the past two years, it is apparent that concern for the health and safety of workers is certainly as great as in Hong Kong, and in some places considerably greater. There are as yet some limitations to the technological support that is available, but rapid progress is being made and we hope to have the privilege and opportunity of working with colleagues there to promote the development of occupational health information and management systems.

Is it necessary for the local universities to offer a specialized programme on environmental science to meet the local need for more specialized personnel?
If such a programme is to be designed, what courses should be included?

O. W. Lau:

It is desirable to offer environmental courses at the undergraduate level because they will expose our students to the environmental problems. However, before any decision to introduce specialized programmes on environmental studies at the postgraduate level is to be made, we should make sure that there is really a local need for specialized personnel in the field. Otherwise there will be no guarantee for employment for students after their training. At present, there are a number of overseas trained environmental scientists working in Hong Kong, but demand for them cannot be said to be too big. The main reason for this is that most of the factories have paid little attention to the pollution problems, thinking that recruiting specialists to manage the pollution problems is a luxury rather than necessity.

K.C. Lam:

Environmental Protection Agency and the pollution control units in various government departments do employ a number of environmental protection personnel each year. Whilst graduates of the Hong Kong Polytechnic can fill the technical grades, the Government has to look overseas for suitable graduates to fill more senior positions. The Chinese University should consider the possibility of offering a specialized programme on environmental studies to meet the local need. There should also be an environmental research unit within the University to encourage interdisciplinary research into local environmental problems.

Environmental issues are very complex issues which require the analysts to possess a broad spectrum of knowledge and skills. For this reason, the better known environmental schools in the world, such as those at the University of Toronto (Canada), University of East Anglia (England) and the Griffith University (Australia) are all interdisciplinary schools. Their programmes are usually designed to avoid superficiality whilst at the same time to establish a broad base. I would like a similar approach to be adopted in any environmental programme to be introduced at the Chinese University. The programme would best be introduced at the postgraduate level leading to a diploma or master’s degree. However, the environmental courses currently offered by the undergraduate departments (e.g. Biology, Geography) should also be strengthened and possibly restructured.

S. Donnan & T.C. Tan:

Occupational Hygienists and also Occupational Physicians are in short supply in Hong Kong at present. The training of more of these people, together with other environmental scientists, will be of great value to Hong Kong. It is not clear to us whether such training could appropriately be undertaken in Hong Kong at present, but there seem to be enough qualified and experienced personnel if Government, universities and polytechnics work together. A more major problem would seem to be whether, as things stand in Hong Kong, such trained personnel could find appropriate employment. Our major concern for the content of such training would be for the emphasis of epidemiological methods — appropriate scientific techniques for investigating large numbers of people over potentially long periods of time, involving complex measurements.

S. Tong:

The history of education in environmental science is very short in Hong Kong. It was only in the late 70s that the Hong Kong Polytechnic had set up the Centre of Environmental Studies. Its scale is rather small and there are only a few teaching staff. Its main aim is to train technicians for various government departments. As for the two local universities and other post-secondary institutions, no systematic programme in environmental science has ever been offered. At present, most of the staff, especially senior officers, of the Environmental Protection Agency are trained overseas. In view of the fact that Hong Kong students are full of potentials, there seems no reason for not offering our own environmental science programmes specifically tailored to the local needs in our universities to train specialists. This, above all, would be a more economical long-term educational measure.

To offer a specialized programme in environmental studies, the following courses may be included in the curriculum: Environmental technology; Environmental planning; Applied ecology; Urban
technology; Resources economics and environmental policy; Operational research and environmental modelling. Elective courses may include the main streams of Ecological management studies (Ecosystem structure and function, Ecosystem management), Pollution studies (Air pollution, Water pollution, Solid waste disposal, Noise, vibration and transport, Toxic hazards) and Environmental Engineering (Engineering hydrology, Environmental impact assessment) etc.

These courses should be at the postgraduate level and may perhaps be offered jointly by different departments concerned (e.g. Biology, Chemistry, Community Medicine and Geography etc.).

K. Liu:

The basic way to solve pollution problems is to prevent the production of pollutants. In order to get to the root of the problem, it would be necessary for us to have more detail information provided by environmental chemists, biologists and physicists and to have environmental engineers prevent the production of pollutants. The programme on environmental studies should be geared to these ends.

P. Chen:

It would be beneficial to the public at large and to the workers in the enterprises if local universities could offer specialized programmes on environmental science to meet local needs for more specialized personnel. It is also important for those in charge of the enterprises to have the knowledge and know-how to manage the problems of pollution in work sites and to protect the workers. For this purpose, the General Business Management and Personnel Management Department of this University now offers a course in Industrial Health and Safety. The course concentrates on the study of industrial health and safety in a managerial approach. The contents of the course also include the study of management measures in pollution control.

K.Y. Chan:

It is necessary for the universities in Hong Kong to offer programmes in environmental studies such as waste recycling, environmental planning, and biogas and single cell protein production from wastes, etc. at the upper undergraduate and postgraduate levels.

S.T. Chang:

In fact, a special course named ‘Biological treatment of waste materials’ could be offered by the Biology Department of this University.

M.H. Wong:

A broadly based centre for environmental studies and documentation could be set up at our University for the purpose of teaching, research and perhaps the provision of advisory services of direct relevance to local needs.

Teaching — A multidisciplinary postgraduate programme in environmental studies catering for the local needs could be established so that graduates may be able to find employment in a wide range of posts. The programme should consist of three parts: coursework and training in techniques related to environmental issues; a research project on a chosen aspect of environmental problems; and an attachment to various industries and government departments. The existing environment-oriented courses offered by various departments of the University could be modified and made use of. In addition, new courses could also be offered, e.g. Environmental Engineering, Ecological Principles for Engineers, Techniques and Methods in Ecological Studies, Occupational Health and Hygiene, etc.

Research and environmental consultancy — Interdepartmental cooperation through joint projects will be encouraged, possibly leading to the establishment of a joint consultancy unit offering services related to various environmental issues, e.g. ecological survey, monitoring of pollution and advice on treatment, environmental impact assessment, analysis of biological, chemical and mineral samples, revegetation of difficult landscapes, problems related to industrial health and safety, waste recycling, etc. Training courses concerning these topics could also be organized for employees of different disciplines, as well as school teachers. Research bulletins and advisory publications could be produced to meet the needs of individual clients, which may include a wide range of organizations, various government departments, private industries, and a variety of other bodies. The unit could be self-supporting, obtaining its funds by provision of consultancy service and by research carried out under contract.
Seminars • Concerts • Exhibitions

* The Department of Chemistry organized the following lectures and seminars:
  - 'Some Studies on Unstable Intermediates' by Professor B. Capon of the Department of Chemistry, University of Hong Kong, on 2nd March;
  - 'Industrial Chemistry, Corporate Research and Development — the Dow Experience' by Mr. D. Dalman, Manager of the East Asia R & D, Dow Chemical (H.K.) Ltd. on 3rd March;
  - 'Host-Guest Chemistry Application to Separation, Resolution, and Stereoselective Reaction' by Professor Fumio Toda of the Department of Industrial Chemistry, University of Ehime, Japan on 21st March;
  - 'Clusters: the Shape of Things to Come' by Dr. Brian F.G. Johnson of the University Chemical Laboratory, Cambridge University on 30th March;
  - 'Plastics Industry in Hong Kong and the Injection Moulding Process' by Mr. Peter Fung and Ms. Mary Kong, Senior Development Engineers of Dow Chemicals (H.K.) Ltd. on 31st March.

* The Department of Philosophy presented the following lectures:
  - 'Is Man Free or Determined? — the Freudian, Sartrean and Zen Buddhist Approaches' by Professor Charles Fu of the Department of Religion, Temple University on 6th March;
  - 'The Problems Faced by the Reconstruction of Confucian and Buddhist Doctrines of the Human Mind and Human Nature' by Professor Charles Fu on 8th March;
  - 'Confucian Ethics and Moral Education in Singapore' by Dr. Martin Lu of the Department of Philosophy, University of Singapore on 12th March.

* Professor Tsung-yi Lin, Head of the Department of Psychiatry, the University of British Columbia, and the first Siu Lien Ling Wong Visiting Fellow of Chung Chi College, spoke on 'Mental Health and Family Values' on 2nd March. In conjunction with the lecture, a book exhibition on 'Mental Health' was held at Chung Chi College Library from 21st February to 3rd March.

* The Institute of Chinese Studies and the Department of History co-sponsored a seminar on 8th March. Professor Chang Chun-shu, Richard Hudson Professor of History, University of Michigan, Ann Arbor, U.S.A. (presently Visiting Professor of History of this University) spoke on 'History, Archaeology, and Regional Significance: Reflections on Recent Travels and Archaeological Fieldwork in Gansu, Qinghai, and Xinjiang'.

* Dr. German E. Berrios, Director of Medical Studies and Fellow of Robinson College, University of Cambridge, and Visiting Scholar of the Department of Psychiatry, lectured on 'Recent Developments in Depressive Illness: Physical Treatments of Depressive Illness' on 13th March.

* The Department of Physiology presented a seminar on 'The Lymphatic Pump' on 16th March. The speaker was Professor I.C. Roddie of the Department of Physiology, Medical Biology Centre, the Queen's University of Belfast.

* The United College organized the following lectures by the College's Resident Fellows:
  - 'Experiences of a Faculty Member in Guangzhou in 1966-75' by Professor Zhou Jiong Liang of Zhongshan Medical College on 19th March;
  - 'Insulin in China' by Mr. Zhu Shang Quan of Shanghai Institute of Biochemistry on 26th March.
* Dr. Arthur Dunkel, Director-General of the General Agreement on Tariff and Trade (GATT), arrived in Hong Kong on 19th March with Mrs. Dunkel for a week-long stay as the first speaker of the University’s 'Li and Fung Lecture'.

Dr. Dunkel gave his first lecture on ‘GATT — Its Evolution and Role in 1980s’ on 23rd March at the Excelsior Hotel, which was attended by over a hundred guests including members of the University, senior government officials as well as representatives from trade and industry. Dr. Dunkel visited the University on 24th March and spoke to the students on the same topic.

The ‘Li and Fung Lecture’ Programme, set up under the auspices of the MBA Division, is financed by the income of an endowment fund established in 1981 by the Li and Fung Group in commemoration of the 75th Anniversary of the Company.

* Professor Y.C. Chang of the Department of Management Science, University of Notre Dame, conducted a seminar on ‘A Truncate MLE of a Constrained Bivariate Linear Regression Coefficient’ on 23rd March. The seminar was organized by the Department of Statistics.

* The Department of Journalism and Communication and United States Information Service co-sponsored a seminar on ‘Japan, Buddhism and Soka Gakkai’ by Mr. H. Kajiura, Chairman of Hong Kong Buddhist Nichirenshoshu on 28th March.

* The Department of Japanese Studies and the International Asian Studies Programme jointly presented a talk on ‘Japan, Buddhism and Soka Gakkai’ by Mr. H. Kajiura, Chairman of Hong Kong Buddhist Nichirenshoshu on 28th March.

* The Department of Chinese Language and Literature and the Goethe-Institut, German Cultural Centre, Hong Kong jointly presented a seminar on ‘Old Forms of Life and New Forms of Life — The Process of Change in the Attitude of Young People Based on New Literary Sources’ on 2nd April. The speakers were Professor Helmut Martin, Department of Sinology, University of Bochum, West Germany and Dr. Ng Mau-sang of the Department of Chinese Language and Literature.

* Professor Li Yi-Jing of the Department of Management Engineering of the South China Technology Institute, Guangzhou lectured on ‘Application of the Marketing Concept to the Enterprise Management in China’ on 6th April. Professor Li is a Resident Fellow of the United College, and the lecture was organized by the College and the Faculty of Business Administration.


* Mr. Zhang Nan-zhou, Vice-Chairman of the Department of Foreign Trade, Amoy University, and Visiting Scholar of the Department of Marketing and International Business, delivered a lecture on Amoy special economic zone on 13th April.

* The Department of Pharmacology presented a lecture on ‘How Far Do We Understand Anaesthesia?’ by Professor Sir William Paton of the Department of Pharmacology, Faculty of Medicine, Oxford University on 18th April.

* The Department of Obstetrics and Gynaecology hosted a seminar on ‘Update in Gynaecology Oncology and Colposcopy’ on 19th and 20th April at Sheraton Hotel. The speakers included Professor D.R. Popkin, Associate Professor A.D. de Petrillo and Assistant Professor M. Roy from Canada; Associate Professor L. Twiggs, Assistant Professor M.H. Taylor and Consultant D. Townsend from U.S.A.; Professor H.K. Ma of the Department of Obstetrics and Gynaecology, University of Hong Kong; and Professor A. Chang of the Department of Obstetrics and Gynaecology of this University.
The Department of Music organized the following concerts:

* **Students' Concerts** on 8th, 15th, 22nd March and 5th April.

* A concert of 'Allegro Woodwind Quintet' by members of the Hong Kong Philharmonic on 14th March. The programme included works by Beach, Arnold, Mozart and Poulenc.

* A **piano recital** by Ms. Marilyn Watson of the Department on 26th March.

* A **Qin and Xiao Recital** by renowned qin player Ms. Lau Chor-wah and composer Mr. Tim Wilson on 29th March.

* A **concert** by students of Lingnan College on 2nd April.

* An **exhibition of Early 20th Century Guangdong Painting** is held from 28th January to 13th May at the Art Gallery. The Exhibition presents about seventy major works by prominent painters of the Lingnan and Geshan schools as well as social reformist leaders. Also on display are a number of ceramic and bronze ware, jade ornaments, books of rubbings and lithographic prints.

* The United College and the Austrian Consulate-General in Hong Kong jointly organized an **Austrian Week** from 20th to 25th February to promote better understanding of the Austrian culture among students. The event featured a photo exhibition, an 'Austrian Literature' book display, film shows, folk dance session and talks. The highlight was a cultural variety show entitled 'Viennese Night' held on 24th February.

* An **exhibition of books on ‘Women and Professions’** was held at Chung Chi College Library from 5th to 17th March.

* An ‘Island Passage’ photographic exhibition by Mr. Chan Chi-fai, former President of Photographic Society of the University and Mr. Ng Siu-kai, former President of Photographic Society of Chung Chi College, was mounted from 19th to 23rd March.

* The Sir Run Run Shaw Hall of the University and the Academic Community Hall of Baptist College jointly presented a **double-featured Cantonese performance** of Arthur Miller’s *The Crucible – Overture* and Samuel Beckett’s *Waiting for Godot* on 29th, 30th March and 8th, 9th April.

  * The Crucible, directed by Mr. Hardy Tsoi, Manager of Sir Run Run Shaw Hall, was presented by the Thespians Drama Society, whose members consist of experienced amateur players and alumni, staff and students of the University. *Waiting for Godot*, performed by players of New Asia Drama Society, was directed by Mr. Chan Ping Chiu, a 4th-year student of the Department of Journalism and Communication.

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Recent Publications of the University

The following books and journals were published by the Chinese University Press between December 1983 and February 1984:

**(Title in Chinese)**

Chou Fa-kao: *Studies on Archaic Phonology* (vii + 315 pp., paperback)

**(Titles in English)**

Liu Ts’un-yan (ed.): *Chinese Middlebrow Fiction* (372 pp., hardcover)

Ng Lun Ngai-ha: *Interactions of East and West: Public Education in Early Hong Kong* (x + 186 pp., hardcover)

**(Journals)**


Personalia

(From mid-February to mid-April 1984)

Appointments

Academic Staff

Faculty of Medicine

Dr. Fok Tai Fai
Lecturer in Paediatrics

Dr. Benjamin Lai
Lecturer in Psychiatry

Dr. Terence Lao Tzu-hsi
Lecturer in Obstetrics and Gynaecology

Dr. Wong Wu-shun, Felix
Lecturer in Obstetrics and Gynaecology

Dr. James Ian Andrews
Visiting Lecturer in Anaesthesia

Mr. Christopher Hadgis
Visiting Lecturer in Surgery

Mr. Lo Ka-keung
Honorary Clinical Lecturer in Surgery

Mr. Rudolph Ngai Loi-cheung
Honorary Clinical Lecturer in Surgery

Mr. Mano Arumanayagam
Assistant Lecturer in Chemical Pathology

Mr. Andrew M. Robertshaw
Assistant Lecturer in Chemical Pathology

Administrative Staff

Mrs. Joy Scott
Temporary Editor, MBA Division

Mr. Au-Yeung Fung Hon
Executive Officer II, Information and General Affairs Section, Secretariat

Mrs. Ng Ip Kit Ying, Jean
Executive Officer II, Publications Section, Secretariat

Research Staff

Dr. Wong King-sun
Honorary Research Associate, Institute of Chinese Studies

Gifts and Donations

As a manifestation of their confidence in this University's development, local and overseas individuals and foundations have donated generously to support the University's research projects, publication project, fellowship and scholarship schemes. The University has received the following gifts and donations:

Research Projects

(1) From The Hong Kong and China Gas Company Ltd. a donation of HK$250,000 for establishing an endowment fund to support the research programme on Management, Technology and Socio-Economic Development to be undertaken by the Institute of Social Studies.

(2) From The Croucher Foundation a donation of HK$130,820 to the Department of Paediatrics in support of a research project on the growth during the weaning period in Hong Kong infants.

(3) From Schmidt & Co. (H.K.) Ltd. a donation of HK$100,000 to the Department of Surgery for research purposes.

(4) From Dr. Choh-Ming Li a donation comprising proceeds accrued from the sales of the Li's Chinese Dictionary amounting to HK$88,766 and any subsequent income from sales of the Dictionary and bank interest thereon, to support the activities of the Institute of Chinese Studies.

(5) From the Health Care Products Ltd. a donation of HK$75,000 in support of research projects of the Department of Surgery.

(6) From the Dow Chemical (H.K.) Ltd. a donation of HK$40,000 in support of a joint research project with the Department of Chemistry: 'A Study of the Effects of Molecular Orientation on the Mechanical Properties of Polystyrene-based Foams and Films'.

(7) From the American Edwards Laboratory of the American Hospital Supply Corporation a donation of US$3,390 in support of a research project on the evaluation of bioprosthetic pulleys and bioprosthetic tendons conducted by Professor P.C. Leung of the Department of Orthopaedic and Traumatic Surgery.

(8) From the following, donations towards the Cultural Communication Programme of the Department of Journalism and Communication:

(a) HK$2,000 from Mr. T.H. Koo, President of the Yulan Kunju Society; and

(b) HK$1,000 from The Chinese Opera Association of The Chinese University of Hong Kong.
Publication Project

(9) From The Asia Foundation a grant of US$10,000 towards the compilation of an English-Chinese Glossary of Applied Management Terms to be undertaken by the faculty of the Management for Executive Development Programme.

Fellowships and Scholarships

(10) From Sir Run Run Shaw a donation of HK$120,000 for the following purposes:
   (a) HK$20,000 as Discretionary Fund for the Head of United College for College activities;
   (b) HK$50,000 for the establishment of the Sir Run Run Shaw Student Loan Fund to provide interest-free loans to needy students; and
   (c) HK$50,000 for the establishment of the Sir Run Run Shaw Staff Development Fund for the training and development of staff members at all levels.

(11) From the Incorporated Trustees of Chiap Hua Cheng’s Foundation a donation of HK$100,000 to set up an endowment fund in memory of Mr. Cheng Chek-chi, the late Chairman of the Hong Kong Chiap Hua Manufactory Co. (1947) Limited. The annual interest accrued from the fund will be used for the establishment of a scholarship for a Medical student for an elective travelling clerkship in a teaching hospital of an Australian or a British University.

(12) From the Shell Company of Hong Kong Ltd. an additional donation of HK$100,000 towards the Shell Scholarship Endowment Fund for the provision of a scholarship for postgraduate studies in the United Kingdom.

(13) Donations to the Dr. Tam Sai Wing Memorial Scholarship amounting to HK$34,580.10.

(14) From the Mobil Oil Hong Kong Limited a further donation of HK$10,000 for a scholarship for the academic year 1983/84.

(15) From Mr. Chan Kang Fout, Vanson Trading Co. Ltd. an annual donation of HK$10,000 to set up a bursary fund with effect from 1984.

(16) From the respective donors increases in the amount for the following scholarships:
   (a) Ten Li Po Chun Charitable Trust Fund Scholarships from HK$2,500 each to HK$3,000 each with effect from 1983/84.
   (b) Ten Chiap Hua Cheng Foundation Bursaries from HK$2,000 each to HK$2,500 each with effect from 1983/84.

(c) Ten Hsin Chong-K.N. Godfrey Yeh Bursaries from HK$2,000 each to HK$2,500 each with effect from 1983/84.

Miscellaneous

(17) From the Croucher Foundation a donation of £2,000 for Mr. Terence Chan Chun Wing, Senior Assistant Bursar to attend an International Seminar on University Finance at Oxford and to visit universities in England.

(18) From the following companies donations to the Department of Obstetrics and Gynaecology in support of a Seminar on Gynaecological Oncology held on 19th and 29th April, 1984 in Hong Kong:
   (a) HK$20,000 from Bristol-Myers (Hong Kong) Ltd.;
   (b) HK$5,000 from Roche Far East Ltd.; and
   (c) HK$2,000 from Carl Zeiss Far East Co. Ltd.

(19) From the following companies donations in support of the 1984 International Summer School on Physics:
   (a) HK$20,000 from The Shell Company of Hong Kong Ltd.; and
   (b) HK$5,000 from Ciba-Geigy (Hong Kong) Ltd.

(20) From The Hong Kong Soya Bean Products Co. Ltd. a donation of HK$10,000 in support of a symposium of the Chinese Medicinal Materials Research Centre.

(21) From Asia Television Ltd. a donation of HK$10,000 in support of the ‘Electric Shadow’ project jointly sponsored by RTHK and the Department of Extramural Studies.

(22) From an anonymous donor a further donation of HK$8,500 to the Discretionary Fund of the Dean of the Faculty of Medicine.

(23) From Trinity Trading Co. Ltd. a donation of HK$2,346.90 for a lecturer in Medicine to attend the 8th Asian-Pacific Congress of Cardiology in Taipei.

(24) From the Government of Alberta, Canada, a collection of books on the politics, history, literature and people of Alberta and Western Canada.

(25) From the South China Morning Post Ltd. a donation of 557 titles to the University Library.

(26) From the Ministry of Machine-Building Industry, the People’s Republic of China, two sets of books: Mechanical Engineering Handbook (15 volumes) and Electrical Engineering Handbook (10 volumes).
Gao Jianseng (1894 - 1916); Eagle, (dated 1911); Hanging scroll, ink and colours on paper, 135x55.5cm. Collection of the Art Gallery (Exhibition of Early 20th Century Guangdong Painting)