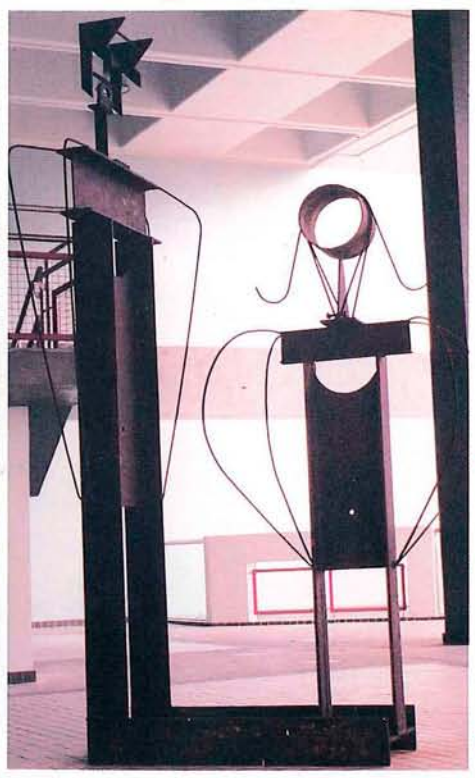


CHINESE UNIVERSITY BULLETIN

Spring • Summer 1994





Chinese University Bulletin

Spring • Summer 1994



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C O N T E N T S

- 1 Letters
- 2 Ho Sin-hang Engineering Building Formally Opened
- 4 Research Demystified
- 5 No Authority Is Beyond Challenge
- 8 A Picture Costs More than a Thousand Words
- 11 Ceramics Thinner than a Wafer
- 14 To Apply Modern Technology to Ancient Chinese Studies
- 17 Hepatitis Virus Found to Attack Kidney
- 19 From Your Very Heart
- 21 From the Department of Extramural Studies to the School of Continuing Studies
- 27 Employment Survey of 1993 Graduates
- 31 Profiles
- 34 News in Brief
- 42 Gifts and Donations

Covers

Front: Side view of the Ho Sin-hang Engineering Building. Lower left is the steel sculpture entitled 'Technology Humanized' by Dr. Tao Ho, architect of the building.

Back: Another view of the Ho Sin-hang Engineering Building

Inside back: Snapshots of the opening ceremony of the engineering building

Letters

As a former member of the staff of The Chinese University (i.e. lecturer in German at United College for a period of four years), I am very glad to receive regularly the *Bulletin* of my former university, to which I feel attached still nowadays. Via the *Bulletin* and its news I feel that I have still a contact with Hong Kong and its people, a place that I found and still find fascinating. I often speak with my Italian friends about Hong Kong, and I think that in this way the expenditure that the CUHK has with the spedition of its *Bulletin* overseas is, at least as I am concerned, well worthwhile. I wish to underline that especially the Summer • Autumn (1993) issue about the 30th anniversary of the University was, to my mind, very well done.

Thank you, and with my best wishes for your work.

Uve Fischer
Professor for German Literature
University of Bologna/Italy

I am an avid reader of the *Bulletin*, and have been enjoying every bit of it. You and your staff have been able to make a plain informational booklet into a readable publication by the judicious use of interrelated photographs, art work and copy design. Keep up the good work.

There is one little suggestion I would like to make with regard to your editorial practice. In your mention of students, alumni, or staff who are graduates of the University, I hope you could also indicate their college affiliation, since this is a unique feature of the University among other tertiary institutions in Hong Kong. 'CUHK' may be enough to the outside world, but within the University circle, i.e. among staff, students, alumni and friends, a little more detail is desirable. It strengthens the identity of a graduate with the University, at a time when it is getting bigger.

Mentioning the college name is only natural when the University is getting big, old, and famous. This phenomenon is best demonstrated in the Oxbridge situation when a student is always from Baliol, King's, St. Hilda's, or wherever.

Lyon Y. Lee, S.B.St.J.
(Chung Chi '57)



UNIV
ARTIMENTO D

To
The Editor
The Chinese University Bulletin
Chinese University of Hong Kong

VIA AEREA
AVION

Ho Sin-hang Engineering Building Formally Opened



The Faculty of Engineering

While the University has been offering programmes in electronics since 1970, in computer science since 1973, and in information engineering since 1988, the Faculty of Engineering was not established until 1991. It now comprises four departments, namely computer engineering, electronic engineering, information engineering, and systems engineering and engineering management. A fifth Department of Mechanical Engineering will come into being in 1994-95.

There are some 1,200 undergraduates and over 180 research students in the Faculty of Engineering. Most of its 72 faculty members are Ph.D. degree holders with extensive teaching experience and good track records in research.

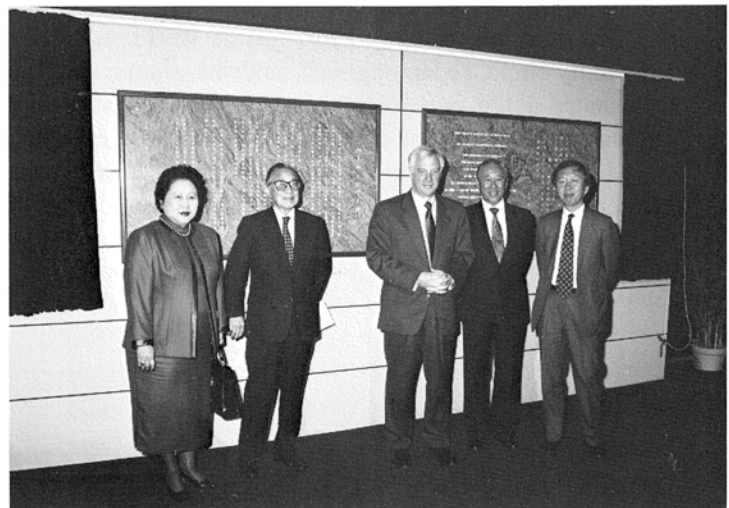
The Ho Sin-hang Engineering Building was formally opened by Mr. Christopher Patten, Governor of Hong Kong and Chancellor of the University, on 12th January. Other guests officiating at the ceremony included Mr. David Ho Tzu-cho, chairman of the S. H. Ho Foundation, Sir Yuet-keung Kan, pro-chancellor of the University, and Dr. Alice Kiu-yue Lam, University treasurer. To mark the event, the University also presented to Mr. Patten the first home-grown semiconductor laser produced by the Department of Electronic Engineering.

Designed by famous local architect Dr. Tao Ho, the 10-storey building is located on the central campus at the junction of University and Chung Chi Roads. Besides offices and lecture theatres for the Faculty of Engineering and its four departments, it houses some of Southeast Asia's most advanced laboratories in telecommunications, electronics and computer science.

The engineering block has been named after Dr. Ho Sin-hang, an eminent local banker and philanthropist, in appreciation of the staunch support he has given to the University. Last year alone he donated HK\$40 million through the S. H. Ho Foundation to establish the Ho Sin-hang Education Endowment Fund in the University. Interest income of the fund will be used to sponsor visiting professorships, medical education, research, and other academic developments.

In his welcoming address, the vice-chancellor Prof. Charles K. Kao reiterated the University's determination to promote technological advancement in the territory, and to convert new technologies into real boons for Hong Kong people.

To show their latest research achievements, the four engineering departments held exhibitions and organized tours of laboratories for guests attending the opening ceremony. □

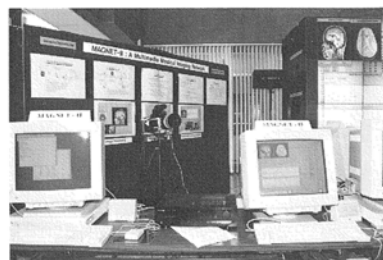


To Convert New Technologies into Real Boons

MAGNET-II: A Multimedia Medical Imaging Network

The first network of its kind in Southeast Asia and a research product of the Department of Information Engineering, MAGNET-II can connect hospitals, medical schools, and private clinics.

MAGNET-II has full multimedia communication capabilities (i.e. communication by motion video, image, voice, data, text, and graphics). A pilot network connecting the University and the Prince of Wales Hospital with St. Teresa's Hospital in Kowloon has been in operation since August 1993. Medical images taken of patients by sophisticated diagnostic machines in these hospitals can be transmitted easily and speedily over this network. With such a network doctors and medical students can have fast and easy access to medical images to facilitate diagnosis. Joint consultation by doctors at different locations is also possible. The network may also be linked to similar systems outside Hong Kong, enabling the flow of medical advice from overseas experts.



MAGNET-II network displaying medical images

VIP NET: Voice Interactive Paging Network

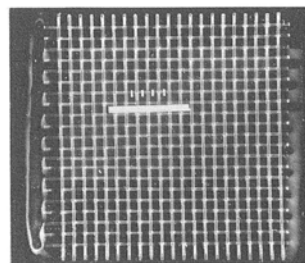
VIP Net is a two-way communication network that can provide voice and text messaging services to mobile users. Unlike existing paging systems, VIP Net allows a user to send and receive messages any time, anywhere. The user can also send his message by using a keyboard or codec. The message will be saved in the central computer even though the line of the other party is busy or when his pager is switched off. Other applications that can be implemented on VIP Net include banking services, directory information services and reservation services.



Demonstration of VIP Net, an experimental network to provide two-way text and voice messaging service

Semiconductor Laser

In an ordinary telephone, a microphone in the mouthpiece will convert sound into electrical signals so that the message can be transmitted along wires. The semiconductor laser is a device that turns these electrical signals into light signals that can be transmitted by optical fibres. Light (or optical) signals have a higher frequency and the optical fibres can therefore carry a far larger amount of information. The first home-grown semiconductor laser was made in May 1993 by the Department of Electronic Engineering.



The first Hong Kong home-grown laser diode (2mm×1mm) comprising four lasers and a strip of semiconductor wafer from which they were cleaved.

Skeletal Strokes

Skeletal Stroke is a revolutionary computer graphics drawing primitive first developed at Cambridge University. It employs an arbitrary picture as 'ink'. Based on an idealized 2D deformation model defined by an arbitrary path, a picture can be deformed as if by bending, shearing, twisting while conserving the aspect ratio of selected parts. A novel general anchoring mechanism even allows an arbitrary deformation pattern of the picture to be encapsulated in a single stroke. Its unsurpassed expressiveness as vector-based digital brush strokes makes it particularly attractive in the making of stylish animations.



A demonstration of the computer animation research project draws the attention of Prof. Charles Kao (centre) and Dr. William M.W. Mong (right).

Research Demystified

In 1993-94, 56 research projects initiated by CUHK staff members received grants amounting to \$29.348 million from the government's Research Grants Council (RGC).

In 1992-93, the figures were 44 projects and \$19.264 million.

In 1991-92, they were 44 projects and \$22.239 million.

One can go all the way back to 1990, 1989, 1988, and earlier. But to the man (or woman) in the street, what do all these figures mean? Taxpayers' money being squandered by impractical academics on projects three, four or even five steps removed from everyday life? Few can decipher from the abstruse research titles what actually is going on in the research laboratories or what the researchers are after. Fewer would bother to find that out from research publications which are usually dry and studded with strange equations and technical terms. So apart from those involved in the allocation of research funds and those competing for such funds, who really cares about what kind of research is being conducted in the University?

As a major recipient of public monies for research, the Chinese University feels it its duty to explain to a wider audience the significance and impact of its research activities. Its Research Committee has thus chosen a number of RGC-funded projects that can demonstrate how research is indispensable for the creation of new knowledge and how such knowledge can be directly related to our lives; and the *Chinese University Bulletin* has worked closely with the principal investigators of these projects to explain their research objectives, procedures, and achievements in terms comprehensible to the lay person.

In this issue, the *Bulletin* brings to readers highlights of six research projects in six different disciplines. Some of these projects have just started, some are in the active investigation stage, and some are nearing completion. Each is related, directly or indirectly, to a specific aspect of our daily lives, and all will contribute to the improvement of the quality of education this university offers.

Through this research series, which will appear regularly in future issues of the *Bulletin*, we try to demystify research and generate popular interest in the University's research activities.

No Authority Is Beyond Challenge

Decline of Authority, Social Conflict and Social Reintegration in Hong Kong: Patterns of Social Change in the Last Years of British Rule

The Decline of Authority: Phenomena and Factors

Recent years have seen a decline in the authority of Hong Kong's political, economic and social leaders. The media have made it their business to ridicule and vilify public figures, exercises which the general public accept with great relish. Demonstrations have become more frequent and violent in some cases. Young people's respect for headmasters and teachers has diminished tremendously — in secondary schools it is not surprising to find students hurling swear

words at teachers, and in the universities the vice-chancellors have found it increasingly difficult to maintain the dignity and image that their predecessors used to enjoy.

Prof. S.K. Lau of the Sociology Department of The Chinese University of Hong Kong sees substantial links between the decline in authority and problems brought about by 1997. With the change of government in 1997 new figures will inevitably emerge to assume power and leadership, and existing leaders will either be phased out or have to change their roles. The erosion of authority and diminution of respect for leaders are thus quite anticipated.

Taking the community as a



Photo supplied by the South China Morning Post

whole, people are generally better educated nowadays and possess a more defined notion of freedom and democracy and in that way are more ready to challenge political and social leaders. On the other hand, during the past decade or so, the cleavage between the rich and the poor has grown even wider than before, and people of the lower classes have become increasingly aware of social injustice and their limited chances for personal growth. And then the wealthy are now more prone to flaunt their wealth. Conflict thus arises, and those in the lower strata are apt to think that their 'betters' achieve eminence by sheer luck or inheritance and therefore undeserving of their approval and respect.

Social Conflict

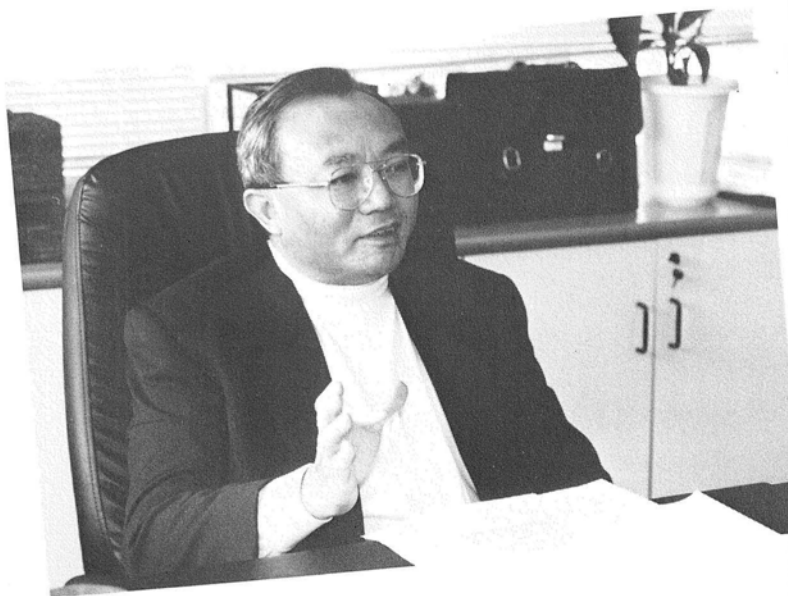
The decline in authority means that there is no more absolute authority within the social framework which is beyond challenge. What come with this phenomenon are various kinds of social conflict, and in particular political conflicts. Anytime a major issue crops up it stands a good chance of being politicized nowadays.

It is the opinion of Prof. Lau that such conflicts may yet have their positive implications. He believes that, if properly managed, the

conflicts may help to facilitate social reintegration by strengthening social and family awareness and enhancing people's aptitude to push for their rights through concerted efforts.

The years immediately leading up to 1997 are a crucial, exceptional time for Hong Kong. The development of Hong Kong hinges on a number of factors which are yet undefined: how Hong Kong will face up to the one-country, two-systems reality, whether there will be a steady, stable transition, and so on. But in that way, Hong Kong is also offering to sociologists a rare occasion for the development and verification of social theories which will eventually benefit the community as a whole.

In early 1994 Prof. Lau launched a research project on social changes in Hong Kong during the last few years of British rule. Involved in the project are academics from a number of tertiary education institutions in Hong Kong as well as scholars from Yale University: Prof. Wong Siu-lun, Mr. Lee Ming-kwan, Prof. Helen Siu, Dr. Lui Tai-lok, Dr. Ng Chun Hung, Ms. Wan Po-san, and Dr. Thomas W.P. Wong. The project is financed with a \$1.2 million grant from the Research Grants Council.



Prof. Lau Siu-kai graduated with a B.Soc.Sc. degree from the University of Hong Kong in 1971 and obtained his Ph.D. at the University of Minnesota, USA in 1975. He joined this university as lecturer in sociology in August of the same year and was appointed as professor in October 1990.

Prof. Lau specializes in studies on Hong Kong and has published extensively on the subject. He is concurrently associate director of the Hong Kong Institute of Asia-Pacific Studies.

A Research Project for Social Reintegration

In what ways is a better understanding of social changes in the next few years relevant to the interest of the citizens of Hong Kong?

Academically speaking, there are very few precedents of colonies being returned to countries from which they were taken. This is why Hong Kong is academically interesting, and Prof. Lau proposes to tackle the issue from the following angles:

- (a) The political conflict, cultural change, and changes in the identity, rights and obligations of the Hong Kong citizen that will appear after the end of colonial rule;
- (b) The problems that will occur under the one-country, two-systems arrangements, for example, Hong Kong's relationship with China, and problems that will surface when the Chinese mode of management/government is being introduced into Hong Kong;
- (c) How social changes in Hong Kong will be oriented after socialist China resumes sovereignty;
- (d) The progress of democratization in Hong Kong.

Great as it is, the academic value of this research project is far outweighed by the project's social significance. The researchers, being Hong Kong citizens or Hong Kong-belongers, are deeply concerned with social stability and growth in the territory. They hope that, through their research, they could identify factors that are conducive to social reintegration which will in turn bring about a more solidary society, serve as new bases of community belongingness, and enhance community well-being.


Research Methods and Their Characteristics

Prof. Lau and his colleagues have divided the project into a number of sub-projects which will, at different levels, study problems related to decline in authority, social conflicts and social re-

integration:

- (a) Social and political leaders — the decline in authority of social and political leaders and the social factors contributing to such a phenomenon;
- (b) Popular culture — how the media react to and reflect rapid changes in society and how they reflect decline in authority and social conflicts. It is expected that through a study of the changes in the form and content of the media, the mentality, behaviour and inter-personal relationships of Hong Kong citizens, and the uniqueness of Hong Kong culture may be better understood;
- (c) Education — the equity of the educational system in Hong Kong, the authority of the teacher, the standard of education, and the role of the intelligentsia;
- (d) Religion — the activities of various religions in Hong Kong in recent years, people's sense of religiosity, the possible correlation between a heightened sense of the religious and the decline in authority, the possibility of religious authority becoming the new dominant authority in society, and the relationship between a heightened faith in religion and changes in cultural ethos;
- (e) The *petite bourgeoisie* — how do members of the *petite bourgeoisie* view Hong Kong in transition, and how do they view their own role in this process. In the past the lower middle class nurtured a Hong Kong dream, one in which the streets of the territory were strewn with gold and opportunities were boundless. The study will chart changes in this dream.

Materials for this study will be gathered by means of questionnaires, personal interviews, site research, and collection and analysis of documentary data. The project is still in its conceptual and preliminary data collection stage and is expected to take three years, that is, until 1996, to complete. Prof. Lau himself is chiefly responsible for the study on the ethos of the Hong Kong people, and a large-scale questionnaire has begun in May 1994. □



A Picture Costs More than a Thousand Words

The role of two-dimensional integer cosine transforms in image compression

Image Storage Problems

There are very few people at CUHK who do not use a *word* processor. But a '*picture is worth a thousand words*', and indeed pictures are much more costly to process, transmit and store. For example, this article has about 1,000 words, and can be represented by about 40,000 bits. A floppy disk stores about 10 million bits, or 10 Mb, good for 250 articles of this length. One TV picture, on the other hand, is made up of some 250,000 little pixels, which will require 6 Mb to store, about 60 per cent of a floppy disk. As pictures are renewed 25 times a second on the TV screen, we are talking about 150 Mb per second. If that is hard to grasp, it means 54,000 floppy disks for storing one hour's worth of programme, not a very practical solution.

Image Transmission Problems

The transmission of pictures faces a similar problem. It is true that optical fibres can now carry thousands of Mb per second, but this would accommodate only a handful of TV channels if pictures are transmitted 'raw' or untreated. People are now talking about 'video on demand', in which a million households

can in theory dial up and ask for a million different programmes to be fetched and transmitted, each to the TV set that demands it. New consumer products such as high definition TV (HDTV) and video phones will also need to transmit a large volume of data. The information highway provided by optical fibres would thus see a traffic jam worse than that of our Cross Harbour Tunnel.

Above Ground in Space

The problem is compounded in the space programme. Many pictures of the pock-marked face of the Moon or the 'snow'-capped polar regions of Mars have been transmitted back to earth via radio waves by various spacecrafts. The Galileo spacecraft, for example, was launched by the US National Aeronautics and Space Administration (NASA) in October 1989 to probe the outer reaches of the solar system, and will soon reach Jupiter and transmit the first close-up pictures of that planet. But the high-performance antenna on Galileo has failed, and it is left with a spare low-performance antenna that transmits only 10 bits per second, hardly enough for many pictures. To make matters worse, the computer on board the Galileo was developed in those days when small PCs were only beginning to appear. It is therefore not powerful enough to handle complicated calculations required for image processing.

Image Compression Is the Answer

One answer to all these problems is image compression — any technique to store and transmit pictures using fewer bits of data. The Chinese University of Hong Kong, as a leading centre of research into information science and technology, has many on-going research projects in this area. One project that has borne fruit and received international recognition and acclaim is the work on integer cosine transform (ICT) by Dr. W.K. Cham, senior lecturer in the Department of Electronic Engineering.

How Is It Done?

Transform coding

Transform coding, the technique involved in image compression, is hardly new. The idea is based on the work of 19th century French mathematician Fourier. Take an 'irregular' wave such as that in Fig. 1a; think of it as a plot of greyness versus position. Fourier showed that it can be expressed as a sum of the 'regular' waves in Fig. 1b; the latter are called cosines

(and in fact also sines). All one has to do is to specify how much (i.e. the amplitude) of each cosine and sine to take and add up; the sum is called a Fourier series. Using such a theory, scientists developed cosine transforms in 1974. They could use about 60,000 amplitudes to specify a typical TV picture (250,000 pixels) with good effect, a saving of a factor of 4.

However, to convert a picture into the cosine amplitudes (i.e. forward transform), or vice versa (i.e. backwards transform), requires a lot of multiplications and additions. Furthermore, the amplitudes of the cosines are not in integers. Most need to be represented in decimal numbers to be accurate. As a TV set displays 25 pictures every second, literally millions of multiplications may be involved in that second, an onerous task for the computer.

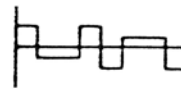


Fig. 1a

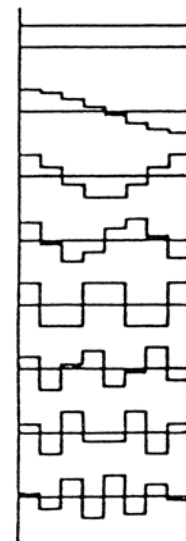
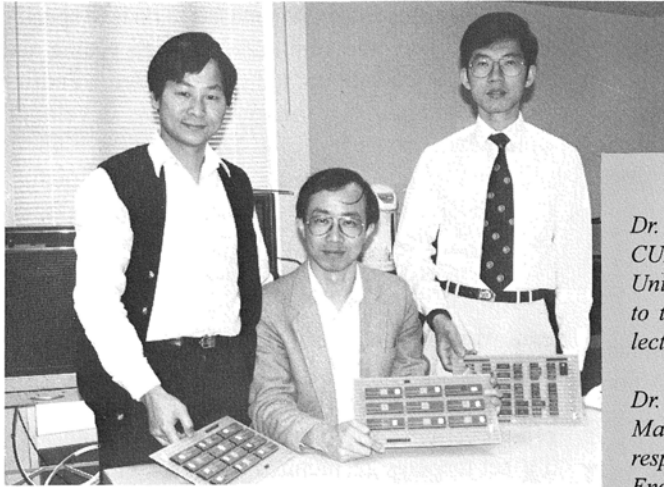


Fig. 1b

Integer cosine transforms (ICT)

Dr. Cham's major contribution in this area is to simplify the calculations involved. First, he replaces real number multiplications by integer multiplications. As a finite number of shades of grey are sufficient to define a good picture, the greyness can be represented as integer rather than a continuous decimal number. So one only need to multiply (and add) integers rather than decimals, hence the name *integer cosine transforms*. Secondly, multiplication by 10 (or 100, 1000, ...) is especially easy for humans, who count on ten fingers. Computers count on two fingers, and find it especially easy to multiply by 2 or 4. Dr. Cham showed, in a now-famous paper published in the IEE Proceedings in 1989, that one



Dr. C.S. Choy (left) and Dr. W.K. Cham (middle) with their self-developed ASIC chips. Standing on the right is Dr. Raymond Yeung.

Dr. W.K. Cham obtained his B.Sc. in electronics from CUHK in 1979, and his Ph.D. from Loughborough University of Technology, UK in 1983. He returned to the Department of Electronic Engineering as lecturer in 1985, becoming senior lecturer in 1992.

Dr. C.S. Choy obtained his B.Sc. and Ph.D. from Manchester University in 1983 and 1987 respectively. He joined the Department of Electronic Engineering as an assistant lecturer in 1986 and was promoted to lecturer in 1987.

can rearrange the arithmetic so that nearly all the multiplications required can be reduced effectively to multiplication by 2 or 4, something which the computer on board the Galileo can easily handle. Dr. Cham, together with another colleague Dr. Raymond Yeung of the Department of Information Engineering, was invited to join the team of consultants at the Jet Propulsion Laboratory, NASA, for the Galileo project in mid-1993, and submitted his research report to the laboratory earlier this year.

Dr. Cham's research findings also make image compression on earth that much easier. Using integer cosine transforms, one can achieve a compression ratio of 20. Fig. 2a shows an untreated image. Fig. 2b is the corresponding image recovered after compression by a factor of 20.



Fig. 2a



Fig. 2b

Specialist CPUs

Given the importance of cosine transform in image coding and Dr. Cham's contribution to a much improved algorithm, it becomes a logical and natural step to study how computer hardware can facilitate and speed up ICTs. The objective is to design Application Specific Integrated Circuits (ASIC) that can perform ICT calculations very fast. In this task, Dr. Cham teamed up with Dr. C.S. Choy, a colleague in the Department of Electronic Engineering. They have now developed and fabricated an ASIC chip which can compute nearly a million ICTs every second. They have also designed and fabricated a

data sequencer chip which is to be used with the ICT chip to transform the pixels of a TV picture twice — once in the horizontal direction and once in the vertical direction. If one has a factor of 4 compression in each direction, the overall result will be a factor of 16. This is called a *two-dimensional* transform, and is used in international standards such as H.261, JPEG, MPEG1 and MPEG2. Most recently, Dr. Choy and Dr. Cham have designed a single chip that integrates the ICT and data sequencer functions, doing the two-dimensional transform in one step. New design techniques and faster chips are the next tasks to be tackled.

With these new inventions, one can look forward to better planetary photos, better TV pictures, and cheaper video phones. □

Ceramics Thinner than a Wafer

Ceramic Thin Films

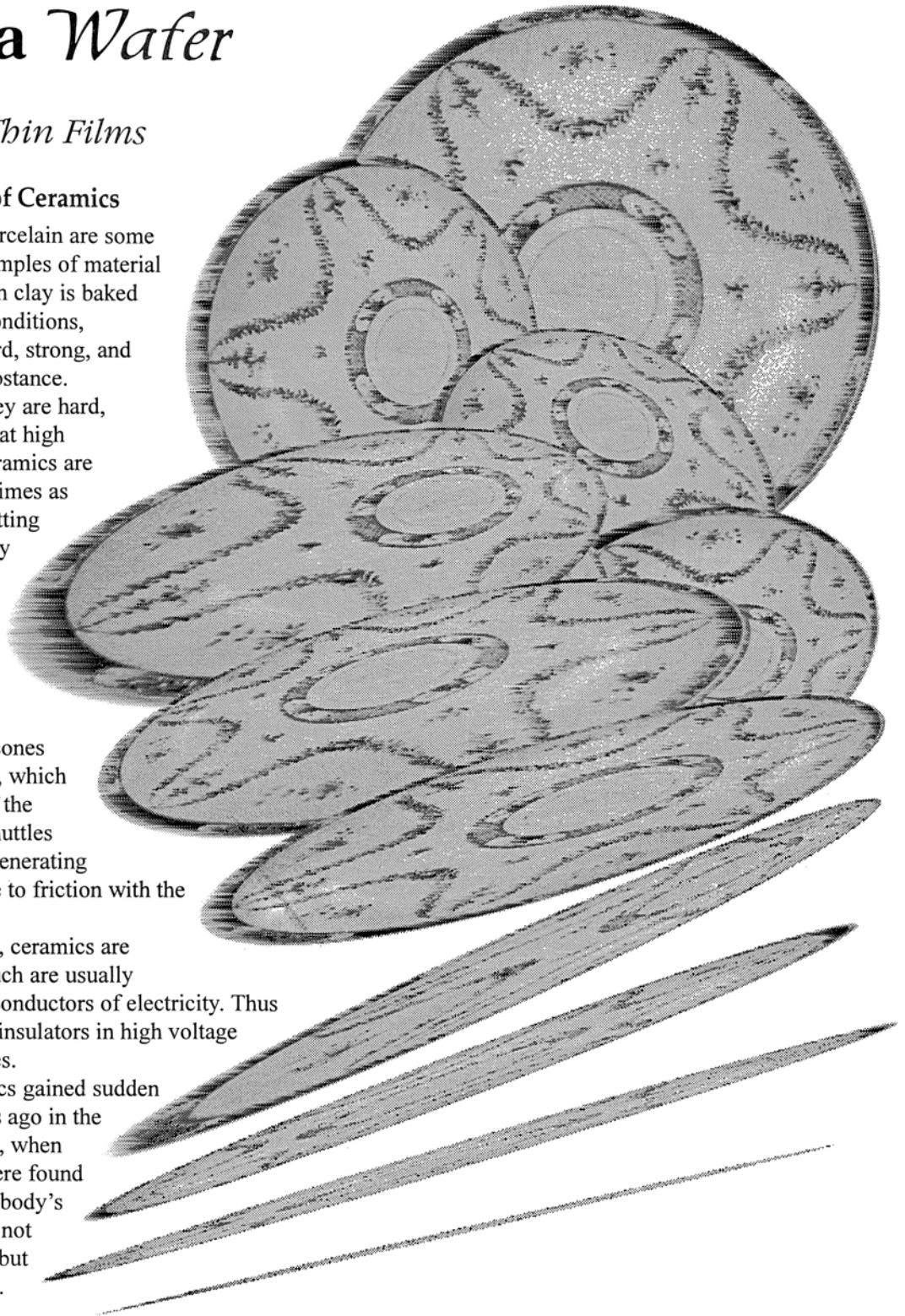
Diverse Uses of Ceramics

Ceramics and porcelain are some of the oldest examples of material technology: when clay is baked under suitable conditions, it turns into a hard, strong, and heat resistant substance.

Because they are hard, and remain hard at high temperatures, ceramics are used in modern times as abrasives and cutting tools. And as they are extremely heat resistant, ceramic tiles are used in the lining of metal refineries, and of the nose cones of space shuttles, which bear the brunt of the damage as the shuttles return to earth, generating extreme heat due to friction with the atmosphere.

Chemically, ceramics are oxides, and as such are usually extremely poor conductors of electricity. Thus they are used as insulators in high voltage transmission lines.

But ceramics gained sudden fame a few years ago in the world of physics, when some of them were found to be — to everybody's utter surprise — not insulators at all, but *superconductors*.



In a superconductor, an electrical current can flow without being pushed by a voltage.

Ceramics have other properties that make them useful. In many ceramics, the centres of positive charge and negative charge are separated, exhibiting an electric 'dipole moment'. By applying an external electric field, the dipole moment can be turned one way or another, and will stay there when the external field is switched off. Ceramics which can remember the external electric field are called ferroelectric ceramics and can be used for developing computer memory devices. These ferroelectric ceramics are also 'piezoelectrics': they deform when an electric voltage is applied across them. A rapidly changing voltage will lead to a rapidly changing deformation, which can then generate an ultrasonic wave in the fluid in which it is immersed, or in the air in which it is exposed. These piezoelectrics are therefore key elements in ultrasonic cleaners and toxic gas sensors. Some other ceramics are transparent, and have good electro-optic properties. They are useful for making optical switches and infrared sensors.

Ceramic Thin Films

In many of these applications, the ceramics are in the form of thin films, a layer with a thickness under 1/10,000 of a centimetre. A thin kite flies when driven by the lightest wind, and can also flutter rapidly when suitably disturbed. So in the same way, thin films have the decided advantage that they can be driven into motion by very low voltages, and when suitably driven, can respond at high frequencies. For example, when an electric voltage is applied across some ferroelectric ceramics, the refractive index of the ceramics is modified and they can be used to make optical switches. Scientists have demonstrated that with a driving voltage of under 5 volts, these ceramics can perform switching at a rate of over a billion times a second, which would be extremely useful in optical communication.

The challenge in research on ceramic thin films is to find better ways of making these films, to characterize the structure of the thin films, and if possible to relate the properties to the structure, and the structure to the process of making the film.

The Physics Department at The Chinese

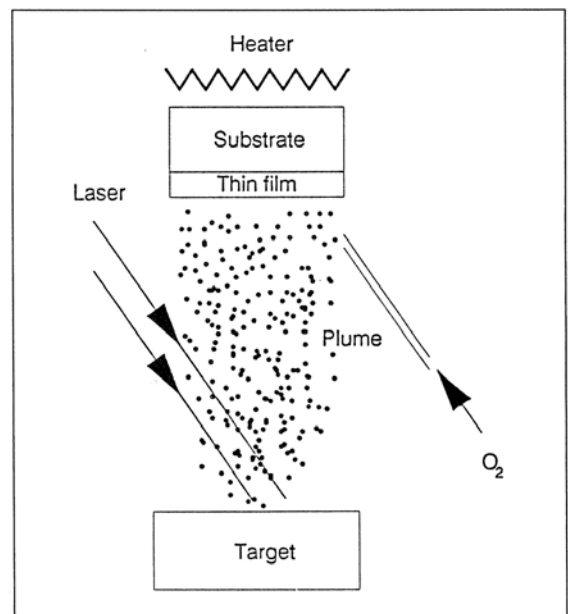
University of Hong Kong has several research projects which study modern materials of technological importance. The study of ceramic thin films by Dr. H. K. Wong and his students has been going on for a number of years, and won competitive funding from the Research Grants Council in 1990. Some significant results were recently published in the prestigious *Applied Physics Letters* and the *Journal of Applied Physics*.

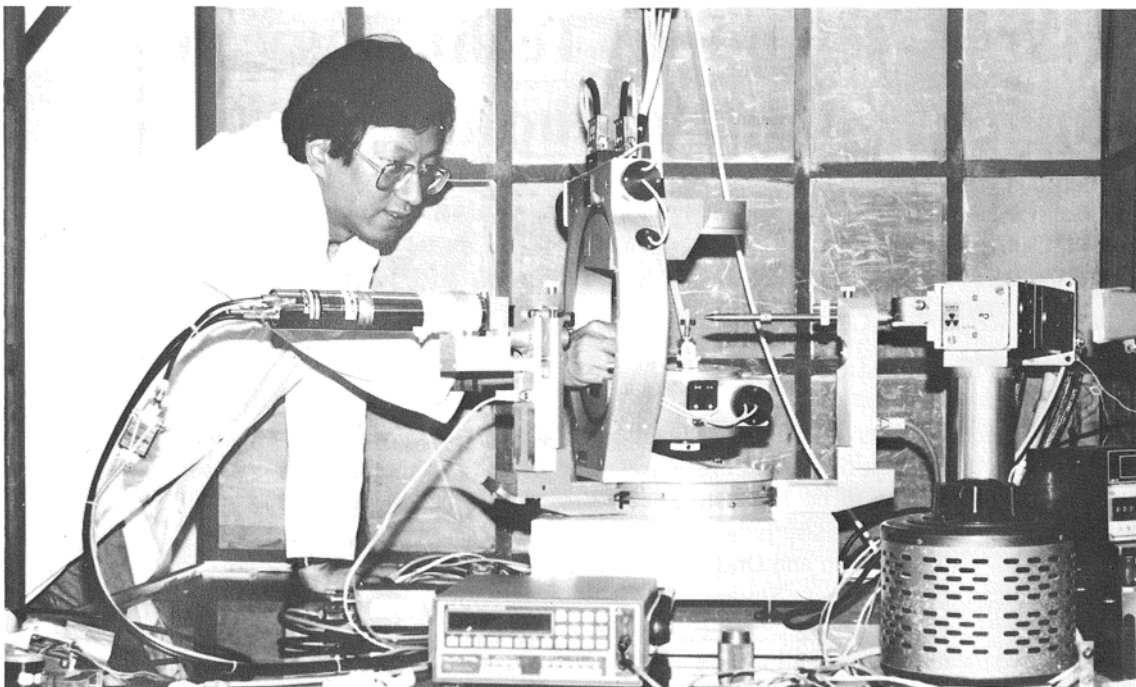
How the Thin Films Are Synthesized

Dr. Wong and his students have set up two simple but reliable facilities to synthesize these thin films.

In the first method, high-power ultraviolet laser light is shone onto a sample of oxide (some ceramic material). The bombarded area of the oxide target is heated up to extreme temperatures in a very short time, and the material evaporates in a plume. The plume, which consists of atoms, molecules and small atomic clusters, impinges upon a carefully polished, cleaned and heated crystal surface. The surface acts as a substrate on which the thin film is formed. Under optimized conditions, the deposited atomic species can move and adjust themselves to form an organized array with a composition nearly identical to that of the oxide target.

A schematic diagram of the thin film preparation equipment using laser bombardment





Dr. Wong operating the 4-circle X-ray diffraction equipment in the Physics Department

Dr. H. K. Wong obtained his B.Sc. and M.Phil. from The Chinese University of Hong Kong, and earned his Ph.D. in physics from Northwestern University in 1985. He worked as a research scientist at IBM San Jose Research Laboratories for one year, and then joined the Physics Department of this university. His research interest is in novel thin film materials. Dr. Wong is concurrently Radiation Protection Officer of the University.

The second method is similar, but instead of a laser pulse, it uses argon ions to bombard the target and knock out the atoms. This is known as sputtering.

To reduce defects in thin film samples, the substrate material must be carefully selected so that the structure of its crystal lattice matches that of the material being deposited. By selecting the substrate, one can tailor the crystal orientation of the thin film; this is particularly important as the properties of ceramic thin films are highly directional.

The structure of the thin films at the atomic level is then determined by X-ray diffraction experiments. Dr. Wong and his students built the X-ray facilities in-house, at a fraction of the cost for a factory-made instrument.

Materials and Applications

The research team has by now studied a number of ceramic thin films. The ceramic $\text{Pb}(\text{Zr},\text{Ti})\text{O}_3$ is a ferroelectric, and has been deposited on magnesium oxide and spinel crystals. The material $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ is a high temperature superconductor, and has been deposited on sapphire and strontium titanate crystals. These thin film samples can be further processed to make devices. Nonvolatile random access memory (RAM) for computers can be made from $\text{Pb}(\text{Zr},\text{Ti})\text{O}_3$ thin films. Superconductors can be used to make superconducting quantum interference devices (SQUIDS), which are incredibly sensitive instruments for detecting magnetic fields, even brain waves. The same preparation techniques can be applied to many ceramics which have other novel properties, and which are objects of study by Dr. Wong and his team. □

To Apply Modern Technology to Ancient Chinese Studies

A computerized database of the entire body of extant Han and Pre-Han traditional Chinese texts

Chinese civilization boasts of an extensive literature going back to the earliest times, and this makes it difficult for sinologists to be exhaustive in the assemblage of primary materials.

In 1988, Prof. D.C. Lau and Dr. Fong-Ching Chen of the Institute of Chinese Studies (ICS) put forward a proposal for the establishment of a computerized database of the entire body of extant Han and pre-Han (206BC–AD220) traditional Chinese texts. Grants amounting to HK\$1.35 million were given to this project by the UPGC and technical support was rendered by the Computer Services Centre of the University. The entire database consisting of nine million Chinese characters in 103 works was completed in March 1991.

Uniqueness of the Database

While the establishment of databases of ancient Chinese texts have been attempted in both mainland China and Taiwan, the ICS database is the first of its kind in Hong Kong and is significantly different from those in China and Taiwan in research orientation and mode of compilation.

First, the database contains the entire body of extant traditional texts of a specific period, i.e. Han and pre-Han. Such texts constitute the sources of Chinese culture and are of great historical value. With the establishment of the database the international community of scholars will have ready access to all extant ancient Chinese texts of the period, thus facilitating a wide range of research, whether in Chinese literature, history, philosophy, linguistics, or lexicography. Lexicographers can use the database for exhaustive study of lexical items found in ancient works.

For the database, the best early editions have been chosen, mainly from the *Sibu Congkan* (四部叢刊) collection. Punctuation and textual notes

are then added, and emendations are clearly marked in such a manner as to render it easy for the reader to recover the original text.

The Compilation of Concordances

The completion of the database makes it possible to compile a complete series of concordances to ancient texts in the Han and pre-Han periods, which is the ultimate objective of the entire research project.

Concordances are extremely useful tools for research as they give ready access to every occurrence of a word in the works concordanced (Table 1).

It is not an exaggeration to say that in the past 60 years or so in the field of sinology, no other research tool has contributed more to ancient Chinese studies than the concordances produced by the Harvard-Yenching Institute in the 30s under the editorship of Dr. William Hung. Unfortunately this work was cut short by the Second World War. Although some 60 concordances were published, a far greater number of texts remained to be done.

Prof. Lau recalls that, in 1965, when he called on Prof. Yang Lian Sheng at Harvard, he raised the question of reviving the concordance series and was told that the institute was no longer interested in resuming the work. He has since been waiting for an opportunity to complete the work interrupted by the war.

With the advent of the microcomputer and its extensive use, and with the completion of the database in 1991, the research group in the ICS decided to develop its own indexing systems for the compilation of concordances for all the texts in the database, viz., the *ICS Ancient Chinese Texts Concordance Series*. For this, Prof. Lau and Dr. F.C. Chen serve as consultants. Prof. Lau supervises and makes decisions on text management and textual

Table 1

Sample from the <i>Concordance to the Zhouli</i> (周禮)	
哀 āi	8
	[a] [b] [c]
八日殺○	2.1/20/24
以凶禮○邦國之憂	3.1/36/27
以喪禮○死亡	3.1/36/27
以荒禮○凶札	3.1/36/27
以弔禮○禍災	3.1/36/27
以禴禮○圍敗	3.1/36/27
以恤禮○寇亂	3.1/36/28
則令○弔之	5.53/74/29
安 ān	23
以○邦國	1.1/5/10, 1.2/6/24
以佐王○授邦國	2.0/15/24
	2.1/20/1
六日○以俗教○	2.1/20/10
然則百物○阜○	2.1/20/17
六日○富	2.1/20/26
以本俗○六○萬民	2.1/20/26
以田里○毗	2.40/28/5
以○賓客	3.21/41/14
掌○宅敘降	3.48/45/11
○車	3.64/47/28
均守平則○以○邦國	4.1/53/9
使之相○相受	5.3/68/4
其康樂和親○平爲一書	5.53/75/1
和則○	6.3/80/1
長穀則○	6.29/85/14
危弓爲之○矢	6.30/86/22
若是者爲之○弓	6.30/86/23
○弓爲之危矢	6.30/86/23
其人○	6.30/86/23
其弓○	6.30/86/23
其矢○	6.30/86/23
誥 ān	1
微聲○	3.29/43/5
豢 ān	3
○撰	3.64/47/31
士以三耦射○侯	4.18/56/11
夾弓、與弓以授射○侯	
、鳥獸者	4.39/59/2
Key ○ = <i>The position of the character in the sentence</i>	
a	= <i>Chapter reference</i>
b	= <i>Page reference</i>
c	= <i>Line reference</i>

notes, while Dr. Chen oversees conceptual design of the information retrieval system to be used for electronic publication, and monitors programming progress. Other key members of the team include Mr. Ho Che Wah, executive editor and project coordinator, and Mr. Ho Kwok Kit, computer projects officer.

Two Forms of the Concordance Series

Book Form

The *ICS Ancient Chinese Texts Concordance Series*, consisting of 94 titles in 65 volumes, which the Commercial Press (Hong Kong) Ltd. has been publishing, will be completed within five years. The first batch consisting of 12 volumes (Table 2) came out in 1992, while the second batch of 16 titles in 14 volumes (Table 3) will come out in mid-1994. These two batches mainly cover texts hitherto unconcordanced, while the remaining 39 volumes consisting mainly of texts already concordanced are expected to be completed by 1996.

Table 2

First Series of Concordances (12 volumes)	
1.	<i>Zhanguoce</i> 《戰國策逐字索引》
2.	<i>Liji</i> 《禮記逐字索引》
3.	<i>Shangjunshu</i> 《商君書逐字索引》
4.	<i>Xinxu</i> 《新序逐字索引》
5.	<i>Hanshi Waizhuan</i> 《韓詩外傳逐字索引》
6.	<i>Dadai Liji</i> 《大戴禮記逐字索引》
7.	<i>Kongzi Jiayu</i> 《孔子家語逐字索引》
8.	<i>Shuoyuan</i> 《說苑逐字索引》
9.	<i>Huainanzi</i> 《淮南子逐字索引》
10.	<i>Wenzi</i> 《文子逐字索引》
11.	<i>The Militarists</i> (<i>Wuzi, Simafa, Sunzi, Yuliaozi</i>) 《吳子、司馬法、孫子、尉繚子逐字索引》
12.	<i>Yizhoushu</i> 《逸周書逐字索引》

Electronic Form

To enable researchers to set up their own databases with personal computers, it has also been decided that the concordances should be available electronically in the form of floppy disks. The software will be known as the CHANT (CHinese ANCient Texts) Database. It is a computer programme for viewing, searching and retrieving.

The CHANT system displays the contents of the ancient Chinese texts in a format identical to that of the text found in the printed form. For those in possession of the *ICS Ancient Chinese Texts Concordance Series*, the computer programme is a convenient key to the printed text. With the built-in search functions in the programme, the user can search a single character, phrase, or special sentence structure, and search results can be sent to a printer or a file for convenient browsing. Additional information like statistics about the frequency of use of a particular word in the text and its *pinyin* is also included.

The basic requirements for using the CHANT system are:

- a 286 or above fully IBM-

- PC compatible computer
- hard disk
- DOS 3.3 or above
- Eten Chinese system (version 3.5 or above recommended)
- any display monitor supported by the Eten system (this includes VGA, EGA and monochrome display)

The first series of the CHANT Software of 12 titles will be published by the Commercial Press (Hong Kong) Ltd. in June 1994. The production of the entire software package is expected to be completed by 1997.

A New Era in Sinology Study

The publication of the concordance series in both book and electronic form is the culmination of years

Table 3

Second Series of Concordances (16 titles in 14 volumes)

1. Zhouli 《周禮逐字索引》
2. Gulienuzhuan 《古列女傳逐字索引》
3. Yanzichunqiu 《晏子春秋逐字索引》
4. Wuyuechunqiu 《吳越春秋逐字索引》
5. Yuejueshu 《越絕書逐字索引》
6. Hanguan Liuzhong 《漢官六種逐字索引》
7. Dongguanhanji 《東觀漢記逐字索引》
8. Shangshudazhuan 《尚書大傳逐字索引》
9. Chunqiu fanlu 《春秋繁露逐字索引》
10. Shanhaijing 《山海經》
11. Mutianzizhuan 《穆天子傳》
12. Yandanzi 《燕丹子逐字索引》
13. Liishichunqiu 《呂氏春秋逐字索引》
14. Yili 《儀禮逐字索引》
15. Xinshu 《新書逐字索引》
16. Yantielun 《鹽鐵論逐字索引》

Prof. D.C. Lau read Chinese at the University of Hong Kong and philosophy in Scotland. He taught Chinese and Chinese philosophy at the School of Oriental and African Studies at the University of London before he came back to Hong Kong to take up the chair of Chinese language and literature at The Chinese University in 1978. Prof. Lau retired in 1989, and is now emeritus professor of Chinese language and literature, and honorary professor as well as adviser at the Institute of Chinese Studies.

Prof. Lau has published translations of Chinese classics. He is known for his contributions in the fields of Chinese language studies and comparative philosophy. The honorary degree of Doctor of Laws was conferred on him by this university in 1975, and the honorary degree of Doctor of Letters by the University of Hong Kong in 1989.

Dr. Chen Fong-ching graduated from Harvard and obtained his Ph.D. degree at Brandeis. He started his academic career in the Physics Department of The Chinese University as lecturer in 1966, and took up the post of University Secretary in 1980. Six years later he was appointed director of the Institute of Chinese Studies.

Dr. Chen's academic interests extend well beyond high polymer physics to literature, history, philosophy, and modern China.

of hard work. All basic information will be at the fingertips of the reader, who no longer has to spend hours on primary data collection, analysis, and comparison. The time saved can be used for work of a more intellectual nature. □

The project team and the fruits of their labour in book and electronic form. From left: Mr. Ho Che Wah, Dr. F.C. Chen, Prof. D.C. Lau and Mr. Ho Kwok Kit



Hepatitis Virus Found to Attack Kidney

Hepatitis — Itself a Major Health Hazard

Hepatitis is the inflammation of the liver, caused by one of several viruses. The commonest is hepatitis A, which may occasionally lead to acute liver failure. The hepatitis B virus is much more ferocious; it can cause death in the short term, and increase the risk of liver cirrhosis and cancer in the long term. Hepatitis B virus infection and related diseases are thus major health hazards. Of the 200 million chronic carriers of the hepatitis B virus, 80 per cent live in Asia, and many of these are infected during childhood. In Hong Kong, a vigorous programme of vaccination at birth is likely to reduce the incidence drastically in the next generation, but the situation is less rosy in the less developed parts of Asia.

Hepatitis Virus Implicated in Kidney Disease

Researchers in CUHK noted a few years ago that, in one type of kidney disease, the basement membrane of the patient's glomeruli becomes thickened, leading to loss of protein and later, to kidney failure. (Glomeruli are bundles of capillary tubes in the kidney, in which waste material is separated from the blood circulation and eventually passed out of the body as urine.) It appears that this kind of membranous structural change is sometimes associated with hepatitis infection, a possibility first reported some 20 years ago. Is this really the case? What is the mechanism linking liver disease to kidney damage? What light would it shed on hepatitis and on kidney diseases? These were the questions that Prof. K.N. Lai, together with his colleagues Dr. Philip K.T. Li and Dr. John S.L. Tam, set out to investigate, with the support of a grant of HK\$260,000 awarded by the Research Grants Council in 1991.

Hypothesis

The fact that the hepatitis B virus finds its way into the kidney is not strange; after all, the virus exists in the blood, and all blood eventually passes through

the kidney, which acts as a filtering station. The mystery is how this tiny virus, small enough to pass through the capillary, can lead to overall tissue inflammation in the kidney.

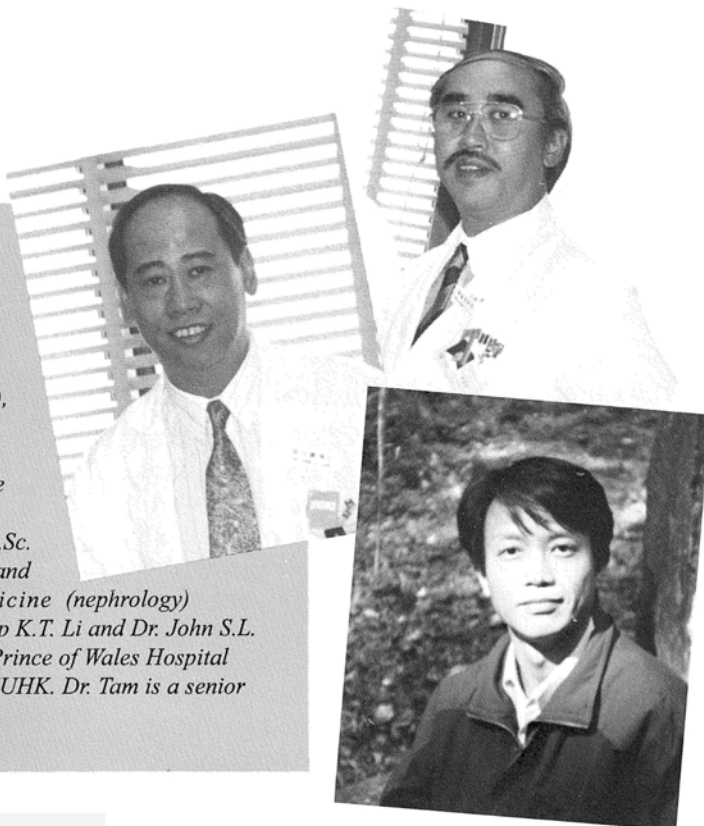
The hypothesis is that the hepatitis B virus provokes the manufacture of antibodies. (The agent that induces antibodies is called an antigen.) The antibodies act by capturing the viruses and forming immune complexes; these relatively large complexes may become deposited in the glomeruli, and eventually alter the tissue structure. For so many immune complexes to be deposited, the virus must first replicate in the kidney or in some other organ. But where exactly does it replicate? Prof. Lai started by investigating the biochemistry and pathology of the diseased kidney, hoping to find clues on the mechanism by which the hepatitis B virus can injure the kidney.

Where Exactly Does the Virus Replicate?

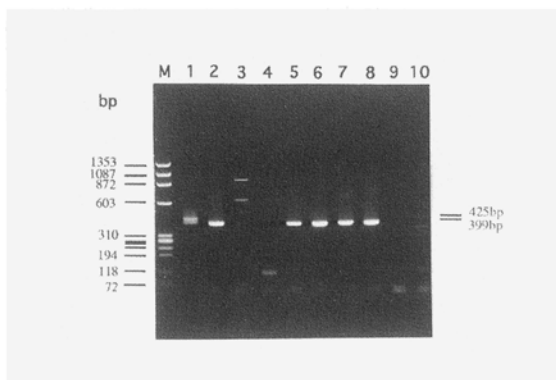
The most important element in cell division and replication is the DNA, a double-helix structure in the cell nucleus. Genetic information is contained in the two strands forming the double helix, which are complementary to each other, segment for segment. The RNA is usually a single strand, also complementary to the DNA, and is therefore able to transfer the information from the original DNA template. It does so by excising small segments, called messenger RNA, or mRNA, which are small enough to pass through the wall of the cell nucleus and carry the genetic information outside the nucleus. This is how each of us grow from a single cell, and this is basically how a virus replicates itself. A virus contains not much besides the DNA genetic information.

Thus, if the hepatitis B virus is really replicated in the kidney, then one should be able to find in the kidneys of these patients traces of the DNA, RNA and mRNA associated with the hepatitis B virus. The discovery of DNA alone would not be decisive, since they could be manufactured elsewhere and brought

Above right: Prof. K.N. Lai
 Above left: Dr. John S.L. Tam
 Below: Dr. Philip K.T. Li



Prof. K.N. Lai obtained his MB BS from the University of Hong Kong in 1975, and qualified as a Member of the Royal College of Physicians (UK) in 1980. He is a Fellow of the Royal Colleges of Physicians (London, Edinburgh, Glasgow), the Royal Australasian College of Physicians, and the American College of Physicians. His research on diseases of the kidney led to the award of an MD from the University of Hong Kong in 1983 and a D.Sc. in 1994. Prof. Lai joined CUHK in 1983, and was promoted to professor of medicine (nephrology) in 1992. His co-investigators are Dr. Philip K.T. Li and Dr. John S.L. Tam. Dr. Li is a senior medical officer at Prince of Wales Hospital and an honorary lecturer in medicine at CUHK. Dr. Tam is a senior lecturer in microbiology at CUHK.



Using PCR techniques to detect mRNA of the hepatitis virus in kidney biopsies from patients. Lane 2 is a positive control of the relevant RNA; it is clear that the same RNA is detected in biopsies located in lanes 5, 6, 7, and 8.

to the kidney. But RNA or mRNA will stay put after they have performed their duty to transfer DNA information. So the site where they are found will definitely be the site where the virus is replicated. So the investigators set out to look for RNA and mRNA.

Preliminary Results

After careful research and study, Prof. Lai's team has been able to demonstrate the presence of immune complexes related to hepatitis B e antigen (HBeAg) in the diseased glomeruli. DNA of the hepatitis B

virus has also been found in the nearby renal tubules, where urine is concentrated.

However, the amount of RNA found is extremely small and cannot be detected directly. Normally, RNA breeds DNA. Through a technique called reverse transcription, researchers can synthesize small copies of DNA out of the small quantity of RNA found. And through polymerase chain reaction triggered by suitable enzymes, this small quantity of DNA can multiply about 10,000 fold to produce a copious amount, from which the presence or absence of RNA can be detected chemically. Through such a mechanism researchers successfully proved the presence of RNA and mRNA of the hepatitis B virus in the kidney.

The finding suggests that the virus replicates in the tubules of the kidney. The HBeAg that is then shed into the blood circulation induces antibody formation. The chemical complex formed by the HBeAg, its antibody, and the virus circulate in the blood and are finally trapped by the glomeruli. The trapping of the complexes leads to the thickening of basement membranes and local inflammation.

Equipped with the new knowledge they have just discovered, Prof. Lai and his colleagues have now set out to study the role of hepatitis B virus in hepatitis B carrier patients with immunoglobulin A (IgA) nephropathy. □

From Your Very Heart

Two novel genes found in the human heart

A Matter of the Heart

The human heart has always been regarded as the seat of emotions. In fact, it is nothing but a very rugged pump that can often work for close to a century. Nevertheless, the pump does run into problems very often. With infectious diseases increasingly under control, cardiovascular diseases have become the major cause of death and disability after age 35. In order to deal effectively with cardiovascular diseases, researchers set out to investigate their nature and what constitutes predisposition to heart diseases. Whereas in the past such investigations were largely dependent on the study of gross anatomy and physiology, over the last few decades medical scientists have adopted a much more microscopic and fundamental approach, which is expected to be more fruitful.

How Genes Come into Play

Many diseases have some genetic component. Some diseases, such as sickle-cell anaemia, are caused by a change in a single base in the DNA. However, most genetically influenced diseases, including heart diseases, are more complex; they are caused by flaws in several genes. A thorough study of the genes involved in the heart is therefore required to understand the genetic basis of heart diseases.

Humans are believed to have about 100,000 genes in their DNA. A gene is a kind of computer code, written by chemical bases that stretch along part of the double-helix DNA molecule. The code in a gene orders the cell to produce one and only one type of protein. Fortunately, not all 100,000 genes are expressed in the heart; typically only 10,000 to 30,000 are expressed in any one kind of tissue. So by systematically studying the 10,000 to 30,000 genes involved in the heart, it is hoped that a better set of molecular tools will be acquired for fighting heart diseases. As a possible bonus, the results might allow doctors to tell whether treatments are effective, by monitoring the genes that are expressed aberrantly.

Discovery of New Genes

A group of researchers led by Dr. Mary Waye and Prof. C.Y. Lee of the Department of Biochemistry are currently engaged in such systematic studies at The Chinese University of Hong Kong. They enjoy the support of overseas collaborators, including Prof. C.C. Liew of the University of Toronto and his research assistants. The project started in 1992 with very little manpower and equipment, but in 1993, a grant of HK\$766,600 was obtained from the Research Grants Council for a period of two years, and a machine crucial for the project — the automatic DNA sequencer — was purchased. The project gradually gained momentum and by early 1994 was able to produce results.

The first stage of the project involved a systematic approach to identify all novel genes expressed in heart tissue.

To do this, a library of cDNA clones relevant to the human heart was first obtained. A cDNA is a complementary DNA artificially produced from mRNA molecules taken from the heart. These cDNAs are then inserted into the DNA of bacteriophage lambda, which is a virus of bacteria. The recombinant materials that grow out of such a process are called 'clones'. The library of cDNA clones contain at least one DNA copy of each of the

Amplification and purification of human heart cDNA clones for sequence analyses





Researcher getting two automatic DNA sequencers into action simultaneously



Picking recombinant cDNA clones in a sterile hood

mRNA species expressed in the heart. By extracting the DNA material from the clones and amplifying its amount via polymerase chain reaction, the DNA can be purified and sequenced directly. To 'sequence' a DNA means to delineate the biochemical structure and pattern of its constituent genes.

The sequences obtained were then compared with published sequences in an international database. Of the 1,000 cDNA clones randomly chosen for sequencing, 24 per cent matched with published human sequences, 10 per cent matched with mitochondria sequences (mitochondria are subcellular organelles that function as the machinery for cellular respiration), and 6 per cent matched with repetitive human sequences. But the rest, nearly 60 per cent, turned out to be novel — these are genes associated with the heart that have never been seen before.

Two Genes Studied in Depth

Unfortunately, studying 600 genes would be too much of an undertaking for the research team. So they focused their effort on two novel cDNA genes of particular interest.

The first, A076, contains a region the structure of which corresponds to heat shock proteins. It has been demonstrated that changes in the level and distribution of such proteins have a direct bearing on the evolution of atherosclerosis, i.e. the progression from fatty streaks to fibrous plaques that can block an artery, producing a heart attack. It is also thought that heat shock proteins are produced during stress and may protect cells by preventing damage of other important cellular proteins, or by restoring the functions and properties of damaged proteins.

The other gene of interest, A0550, contains a cDNA which shares the same structural origin with zinc-binding proteins. Zinc-binding proteins may have a variety of functions including zinc transport and specific interactions with DNA, RNA or proteins.

Application

Researchers hope that they can use these novel genes as probes to find suitable markers that correlate the genetic changes with human genetic diseases, thereby facilitating diagnosis of genetic heart diseases and the identification of individuals who might be prone to certain health conditions.

The mysteries of the heart are being unfolded gene by gene. □

Investigators

Dr. Mary Waye read bacteriology and immunology at the University of Western Ontario and earned her B.Sc. (Hon.) in 1976. She furthered her studies at the University of Toronto, specializing in medical biophysics, and was awarded the degree of Ph.D. in 1982. Dr. Waye was assistant professor at the Department of Dentistry in the University of Toronto before joining this university as lecturer in biochemistry in 1992.

Prof. Lee Cheuk Yu studied biochemistry at the University of British Columbia in Canada, where he received his Ph.D. He was postdoctoral fellow and later assistant professor at the New England Institute, USA, before joining the Department of Biochemistry of The Chinese University as lecturer in 1972. He was promoted to professorship in January 1985.



中大校外進修

From the Department of Extramural Studies to the School of Continuing Studies

Continuing Education in Hong Kong

The origin of adult education in Hong Kong can be traced back to 1902, when the YMCA first organized adult education classes for the general public. Among local institutions of higher education, the University of Hong Kong was the first to establish a department of extramural studies (in 1956) to run short courses for those deprived of the opportunity of formal education.

The rapid growth in the local economy and the accompanying developments in primary, secondary, and tertiary education over the last 30 years have brought about a significant change in the direction of adult education in Hong Kong. As more and more people become better educated and as more and more of them look for opportunities of continuous self-improvement and professional growth, many other institutions of higher education have set up their own extramural units to fill this need.

Development of Extramural Studies in CUHK

The Department of Extramural Studies (EMSD) of The Chinese University of Hong Kong was set up in 1965, two years after the University came into being, and is fast approaching its thirtieth anniversary.

Prior to 1978, short-term non-degree courses and interest classes were offered independently by the EMSD 'outside the University walls'. After 1979, EMSD began to develop, in collaboration with other academic departments 'within' the University, diploma and certificate courses in various disciplines for those seeking to upgrade their knowledge and professional qualifications. As more University faculty members become involved in both curriculum design and the teaching of such courses, and as the quality of the programmes and the standard of the graduates are closely monitored by the University, the boundary between 'extramural' and 'intramural' has become blurred.

From 1988 onwards, EMSD has, on the invitation of famous universities in Australia and North America, diversified its services into administrative support for their undergraduate and postgraduate degree programmes run in Hong Kong. The EMSD has been extremely careful in the choice of overseas partners and the provision

of assistance to them, to ensure that only quality programmes are supported and that University resources are deployed cost-effectively in the process. In more recent years, international organizations such as the World Bank and the United Nations have also commissioned the EMSD to organize tailored-made training courses for business executives from mainland China.

EMSD Renamed School of Continuing Studies

By 1993, in terms of the types and number of courses offered as well as student enrolment, EMSD has become one of the three leading institutions of continuing education in Hong Kong (the two other institutions being the School of Professional and Continuing Education at the University of Hong Kong, and the School of Continuing Education at the Hong Kong Baptist College). As over the years the nature of courses offered by the EMSD has gradually changed, its relationship with other academic departments within the University has grown much closer, and its linkage with the international community has strengthened considerably, the University Senate decided that the EMSD be officially renamed the School of Continuing Studies in January 1994 to better reflect its nature and mission. The new name will certainly promote its image and facilitate its future development.

Structure of the School of Continuing Studies(SCS)

In academic planning and development, SCS is supervised directly by the Senate Committee on Extramural Studies, of which the vice-chancellor serves as chairman.

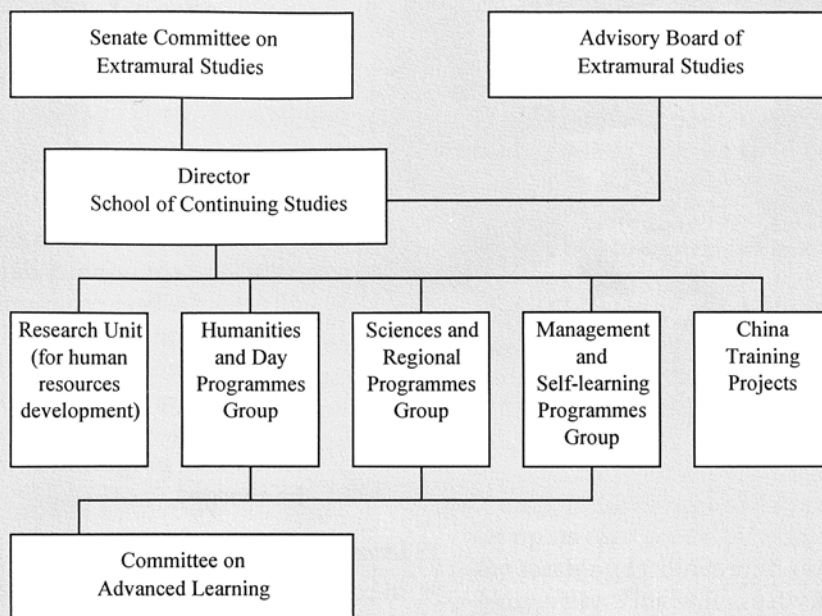
An Advisory Board of Extramural Studies comprising renowned personalities in the industrial and business sector as well as senior University administrators gives advice on development directions.

General administration and course organization are handled by SCS's own staff members. There are three groups looking after programmes of three different disciplines: the Humanities and Day Programmes Group, the Sciences and Regional Programmes Group, and the Management and Self-learning Programmes Group.

To further promote continuing education and research on human resources development, a Research Unit was established in March 1994 to encourage collaborative research with teaching staff of the University, and to serve SCS in the areas of job analysis, financial analysis, and the development of management information systems, central filing systems and course evaluation systems. It also provides back-up support for academic seminars and functions coorganized with other teaching departments.

There is also a task force on China Training Projects responsible for the training of administrative personnel and business executives of mainland China in certain commissioned projects, and an inter-group Committee on Advanced Learning which is responsible for vetting programme proposals and coordinating matters relating to diploma and certificate courses and overseas joint projects.

SCS Organization Chart



Future Developments

Financially SCS has become a self-sufficient unit since 1991, drawing its income mainly from course fees. Academically and administratively, it follows the same stringent vetting procedures as all other units in the University. Its mission and objectives are multiple and it always has to strike a balance between financial viability and its duty to serve the changing needs of the community. Its development plans have recently been broadly defined by the Senate Committee on Extramural Studies as follows:

Teaching and Research

General Short Courses

Efforts will be concentrated on developing more courses in business administration, foreign languages and computer studies, where the demand is high. SCS will also continue to strengthen those courses which have proven to be marketable, e.g. the reputable art courses. Regional courses, distance and self-learning courses and those promoting Chinese traditions and culture will be maintained at the present level. SCS will actively explore new teaching methods and



Demonstration by art instructor during a Chinese painting class

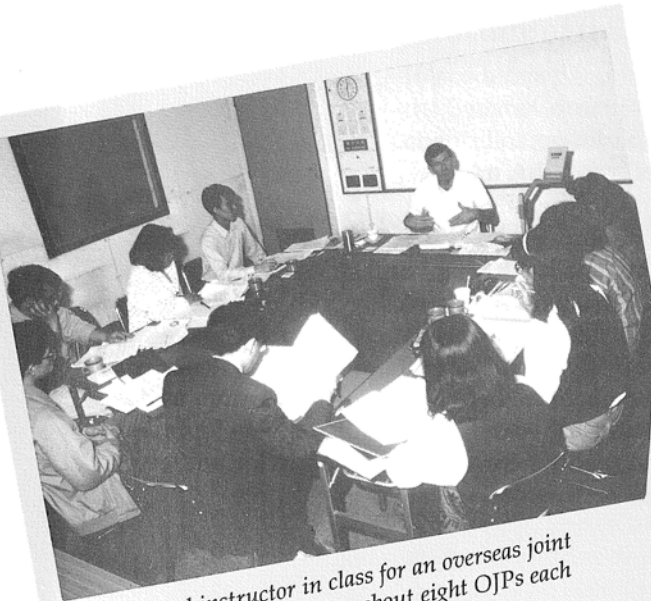
develop new media of instruction for all its short courses. Starting from May 1994, a tutorial course in Chinese painting and calligraphy will be run in conjunction with Cable Television. A feasibility study on a financial engineering course jointly offered with Rensselaer Polytechnic Institute, USA, is also under way.

Sub-degree Diploma & Certificate Programmes

SCS will emphasize both programme quality and community demand, and will offer the best programmes at a reasonable tuition fee level. In this respect the analyses made by the SCS Research Unit will serve as ready references when deciding on the contents of programmes and fees to be charged.

Linkage with Overseas Institutions

In compliance with University guidelines and hoping that overseas joint projects will generate sufficient income to subsidize local courses of a community service nature, SCS



Students and instructor in class for an overseas joint programme (OJP). SCS offers about eight OJPs each year.



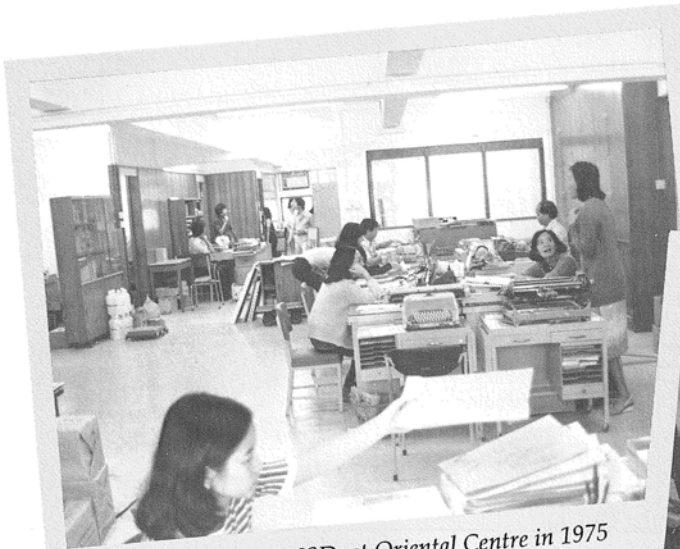
A meeting with Guangdong Television to discuss the broadcasting of EMSD's Instructional TV (ITV) programme. A number of ITV courses were offered to people of Guangdong afterwards.

will be prudent in selecting programmes offered by overseas tertiary institutions when extending administrative assistance. For projects commissioned by other international organizations, the guiding principle is that quality should always come first. SCS will continue to coorganize seminars and symposiums with overseas academic institutions as well as teaching departments within the University.

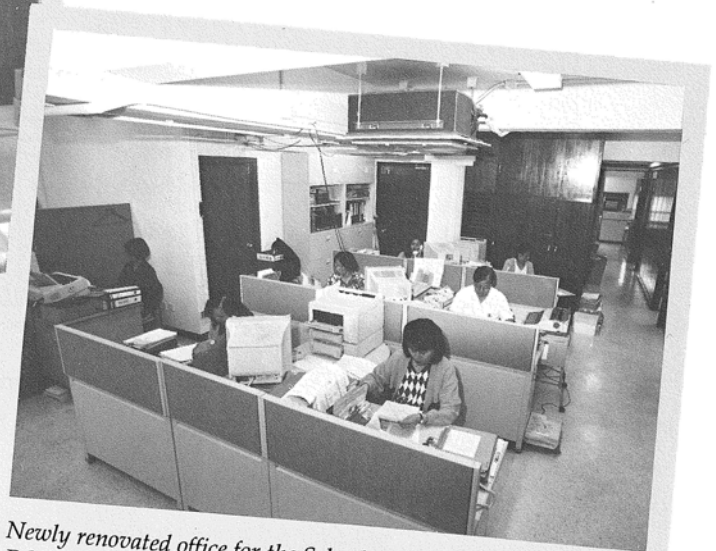
Management and physical improvement

The principle of 'resource sharing' will be adopted in SCS management, the purpose of which is to cultivate a corporate spirit among all SCS staff in different units. Efforts have also been made since August 1993 to upgrade information management systems and office computerization, and to introduce central filing and programme evaluation within two years.

With the full support of the University, obsolete equipment, furniture and computer models are gradually being replaced. After long years of use the physical condition of the SCS premises at Oriental Centre is far from being ideal. The University is therefore considering the relocation of SCS to a proposed multi-purpose complex adjacent to the KCR University Station. If the project materializes, SCS can set up its own centre on campus and share the teaching facilities with other units of the University. This will greatly increase its competitive edge in the field of continuing education, and the likelihood of jointly



The general office of EMSD at Oriental Centre in 1975



Newly renovated office for the School of Continuing Studies in February 1994

Types of Courses: Current and Prospective

Type	Course	Current	Prospective
Degree Programmes	<ul style="list-style-type: none"> Undergraduate courses Postgraduate (higher degree) courses 	<ul style="list-style-type: none"> Run in conjunction with overseas tertiary institutions which offer courses and organize instruction locally No UPGC funding 	<ul style="list-style-type: none"> To utilize existing expertise in the University and resources of the SCS to support the development of self-financing postgraduate courses. To set up a SCS centre on campus
Professional Programmes (Tertiary level)	<ul style="list-style-type: none"> Sub-degree diploma courses Tailor-made short training courses for business executives 	<ul style="list-style-type: none"> Organized by the SCS or jointly with teaching departments of the University or local professional bodies No UPGC funding 	<ul style="list-style-type: none"> To strengthen collaboration with teaching departments of the University and other local tertiary institutions. To liaise closely with the government's Civil Service Branch Appropriate UPGC subsidy To set up a SCS centre on campus
Professional Programmes (Matriculation to undergraduate year 1 level)	<ul style="list-style-type: none"> Sub-degree certificate courses A series of courses by subject Training courses for supervisory staff 	<ul style="list-style-type: none"> Organized by the SCS or in conjunction with local professional bodies No UPGC funding 	ditto
Vocational & Technical Training (F.3 to F.5 level)	<ul style="list-style-type: none"> Courses on technical subjects 	<ul style="list-style-type: none"> Service-oriented short courses Most being subsidized by income from other types of courses 	<ul style="list-style-type: none"> Courses to be offered in accordance with University policies and priorities
Conventional Adult Education (no education requirements for admission)	<ul style="list-style-type: none"> Interest classes of different levels Life-long education Tuition for those with little schooling 	<ul style="list-style-type: none"> Service-oriented short courses (including courses by distance-learning) Most being subsidized by income from other types of courses 	ditto

introducing more self-financing postgraduate and higher degree programmes with other academic departments on the campus.

Looking Ahead

After nearly three decades of growth and consolidation, SCS is now poised for further challenges. One continuing challenge has been to adjust its objectives in a rapidly developing economy and changing society, and to strike the right balance among course quality, financial viability, and its commitment towards community service. SCS staff are however fully confident of taking up such challenges and making further progress ahead. □

Employment Survey of 1993 Graduates

A Summary Report

The University's Appointments Service conducts annually an employment survey on the year's graduates and diplomates to obtain information about their career destinations after graduation.

A survey on the 1993 graduates was conducted between September and December 1993. Out of a total of 1,432 full-time first-degree graduates (excluding medical students), 1,372 returned completed and valid questionnaires, giving a response rate of 95.8 per cent. The response rates of part-time first-degree graduates, full-time higher-degree graduates and diplomates were 98.2 per cent, 84.6 per cent and 96.9 per cent respectively.

Unless otherwise indicated in the text, percentages quoted in this report are based on the number of respondents in employment.

First-degree Graduates

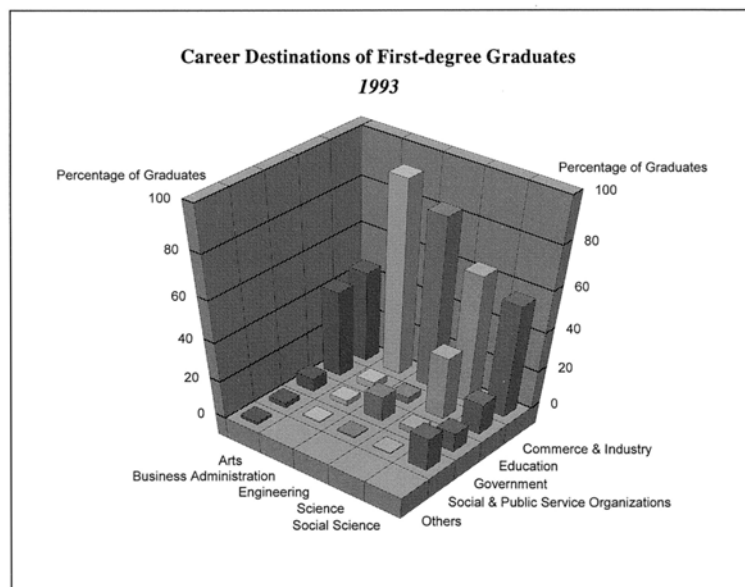
Destinations

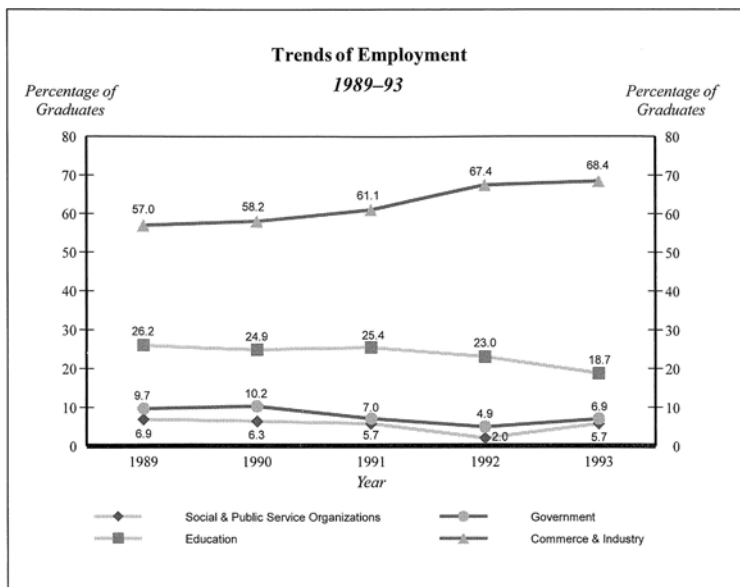
Of the 1,372 respondents to the survey, 1,142 had started work locally, 173 were pursuing further studies, 15 were working or training overseas, four were travelling, nine emigrated abroad, 23 were still seeking suitable employment at the time of analysis, one returned to his place of origin, one died, and

four remained unemployed for personal reasons.

General Trends

The employment pattern of graduates in the major sectors is slightly different from that of the previous years. The percentage of graduates working in the education sector dropped from 23 in 1992 to 18.7 in 1993, while





the percentages of graduates in all other occupational sectors increased: 68.4 for the commercial and industrial sector, 6.9 for the civil service sector, and 5.7 for the social and public service sector.

Arts Graduates

In 1993, the commercial and industrial sector replaced the education sector as the major outlet for arts graduates, absorbing 45.5 per cent of them. The percentage of arts graduates in the education sector decreased from 55.1 in 1992 to 43.6 in 1993. The number of graduates joining the civil service (6.9 per cent) and the social and public service sector (2.5 per cent) however increased.

Business Administration Graduates

The employment trend for business administration graduates has been rather consistent over the last five years. Each year the commercial and industrial sector attracted over 80 per cent of the graduates. In 1993, the figure was further increased to 92.7 per cent.

Engineering Graduates

More engineering graduates have joined the civil service. The percentage increased significantly from 4.5 in 1992 to 12.8 in 1993. Fewer have opted for a career in education and the percentage dropped from 8.2 in 1992 to a mere 3.4 in 1993.

The computer profession attracted about 90 per cent of the computer majors and 57.1 per cent of the information engineering graduates. Some 64 per cent of the electronics/electronic engineering graduates joined the engineering field.

Science Graduates

As compared with 1992, more science graduates have joined the commercial and industrial sector (63.7 per cent), and fewer have taken up employment in the education sector (32.4 per cent).

Social Science Graduates

Those joining the social and public service sector increased significantly from 7.9 per cent to 17.3 per cent, but the number of those joining the education, and commercial and industrial sectors has dropped.

Employers

About 44 per cent of the graduates working in the business sector were employed by local companies. The rest were working in companies owned by British (12.9 per cent), American (12.7 per cent), PRC (6.5 per cent), Japanese (5.2 per cent), and other (18.6 per cent) interests. Of those who became secondary school teachers, close to 90 per cent were teaching in subsidized schools, and 8.1 per cent in government schools.

Terms and Conditions of Employment

The average monthly salary showed an increase of 10.5 per cent over the previous year's figure. The median monthly salaries for graduates in different occupational sectors are \$14,423 (government), \$14,082 (education), \$10,135 (commercial and industrial), and \$13,115 (social and public service). About 23.1 per cent of the graduates had their remuneration packages supplemented by an annual bonus; 65.3 per cent were entitled to medical coverage; 65 per cent were entitled to pension schemes; and 2.5 per cent enjoyed housing benefits.

Assignments Outside Hong Kong

Among those employed, 27.4 per cent were required to perform assignments outside Hong Kong, and about 79.2 per cent of them had duties in PRC. Others required to work abroad had duties in South East Asia (11.2 per cent), Europe (6.4 per cent), the USA (4.2 per cent) and Taiwan (4.2 per cent).

Job Satisfaction

Over 90 per cent of the graduates were happy with their current employment. Most

indicated an interest in their jobs and cordial working relationships with their colleagues. However, close to 27 per cent of the respondents were not satisfied with the fringe benefits they enjoyed. Some 24 per cent were also dissatisfied with the management style and the training opportunities provided by their employers.

Job Search Process

About 92 per cent of the respondents had their first appointment offers by the end of August, while 33.1 per cent of the respondents received their first offers before June. The overall average number of job offers for the 1993 graduates was 2.5, 0.1 more than that of the previous year. Some 70 per cent of the graduates started work by the end of August. About 25.2 per cent began work in September.

Further Studies

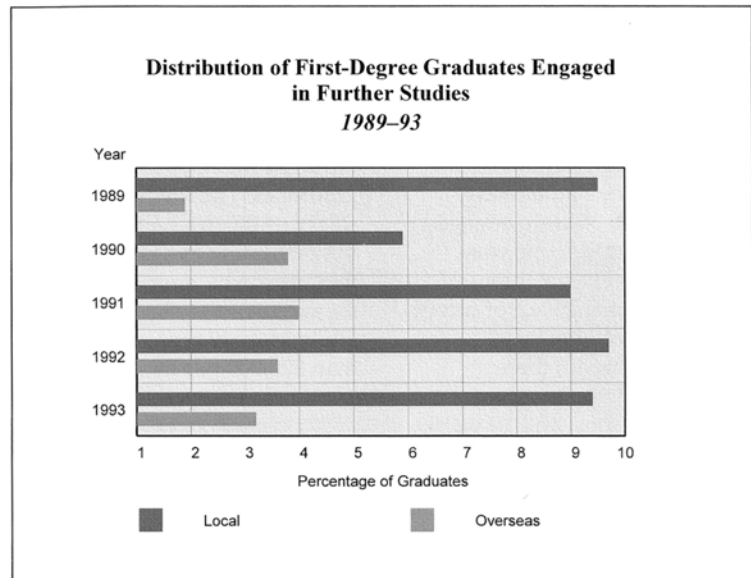
Fewer graduates proceeded to further studies in 1993. Among those who had left Hong Kong

for postgraduate studies, 27 went to the USA, nine to the UK, three to PRC, two to France, and one each to Germany, Holland and New Zealand.

Fifty per cent of the graduates in further studies were given teaching assistantships; 31.8 per cent had to bear the cost themselves; 6.9 per cent received various forms

of government assistance; and 6.9 per cent were on full scholarships.

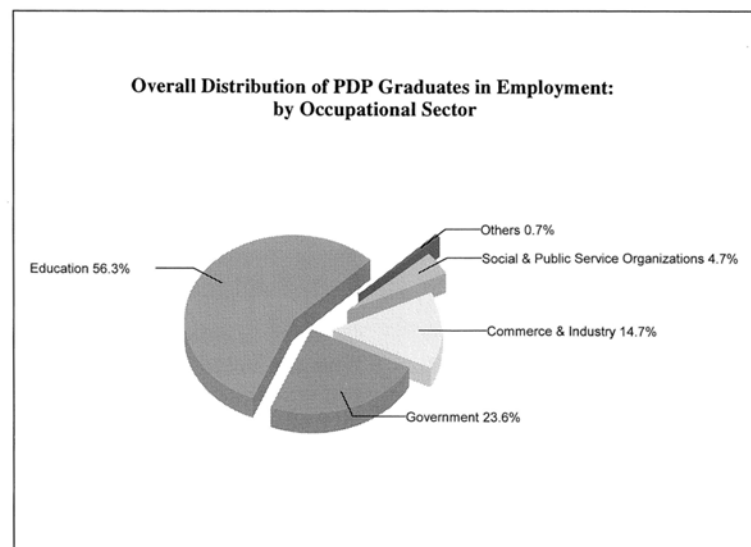
Some 25 per cent of the graduates in employment pursued part-time studies after graduation. The major reasons for such pursuits included interest, job requirement, and the attainment of useful qualifications.



Part-time Degree Graduates

A total of 167 valid questionnaires were collected from 170 part-time first-degree graduates. Of these respondents, 149 were engaged in full-time employment, five emigrated abroad, eight were pursuing further studies, three were still seeking suitable employment at the time of the survey and two were housewives.

Most graduates managed to secure jobs relevant to their training: 60 per cent of the business administration majors were employed in the business sector; 91.2 per cent of the primary education graduates were employed in the education



sector; and 30 per cent of the social work graduates joined the social and public service sector.

Seventy-five per cent of the music majors, 66 per cent of the Chinese/English graduates, and close to 80 per cent of the graduates from the physical education programme also served in the education sector.

Some 12.8 per cent of the

graduates changed their employers after graduation. About one fifth of these were social work graduates.

The PDP graduates had an average working experience of 10.5 years, and their median monthly salary was \$23,844. But some 18.4 per cent earned a salary of more than \$30,000 per month.

Two-Year MBA Programme

Of the 32 MBA students who graduated in 1993, 31 responded to the survey. Ninety-three per cent of them joined the business sector upon graduation. As in the previous year, their major career fields were administration/management (44.5 per cent), marketing (25.9 per cent), banking (7.4 per cent), and finance/investment (7.4 per cent). About 77 per cent of the MBA graduates earned a monthly salary in the \$11,000–\$14,999 range, while 15.3 per cent earned more than \$15,000 per month. The median monthly salary was \$13,250. Some 85 per cent of the MBA graduates received their first appointment offers by the end of July. The average number of offers received was 2.8.

Higher-degree Graduates

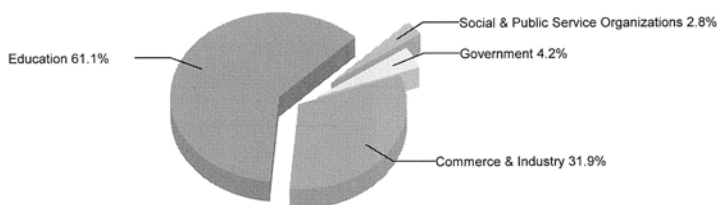
Of the 154 valid questionnaires returned from the 182 full-time higher-degree graduates, 99 indicated they had already started work; 36 were engaged in further studies; one was employed overseas; three returned to their place of origin; one was travelling; one emigrated abroad; three remained unemployed for personal reasons; and 10 were still seeking suitable employment at the time of analysis.

Graduate School Divisions (Not including the Division of Business Administration)

Of the 150 full-time higher-degree graduates of 1993 (except MBAs), 123 responded to the survey. About 59 per cent of them were in employment, and 29.3 per cent took up further studies after graduation. Over 60 per cent of those working were employed in the education sector, 4.2 per cent joined the civil service, 2.8 per cent joined the social service sector, and 31.9 per cent were employed in the business sector. Teaching was still the chief occupation of higher-degree graduates, and accounted for 38.9 per cent of the employment cases. Research (26.4 per cent) and computer

(13.9 per cent) were the two other major career fields which attracted the higher-degree graduates. The median monthly salary of the graduates was \$14,600. Some 53 per cent of them earned a monthly salary in the range of \$14,000–\$19,999, while 14.3 per cent earned more than \$20,000 per month.

Distribution of Higher-Degree Graduates (except MBAs) in Employment: by Occupational Sector



Diplomates of the Faculty of Education

Of the 65 full-time diplomates who graduated in 1993, 63 responded to the survey. Fifty-nine of them were engaged in full-time employment; one was pursuing further studies; one returned to his place of origin; one was still seeking suitable

employment at the time of analysis; and one remained unemployed for personal reasons. Most of the diplomates (89.8 per cent) chose teaching as their career after their training, and the majority of them were teaching in subsidized schools. □

Profiles

Dr. Peter Chi-Keung Cheung

Lecturer, Department of Biology

Dr. Peter Cheung graduated from the University of Hong Kong with a B.Sc. (Honours) degree in chemistry, obtained his master degree in food and drug chemistry from the University of New South Wales in Australia in 1987, and completed his Ph.D. studies in carbohydrate chemistry in 1990. He had been engaged in carbohydrate research in the Food Research Laboratory of the Commonwealth Scientific and Industrial Research Organization in Sydney before he joined The Chinese University as lecturer in biology in January 1994. Dr. Cheung is a chartered chemist and a member of the Royal Australian Chemical Institute and the Australian Institute of Food Science and Technology.

Dr. Cheung is interested in both basic and applied research on carbohydrates. The focus of his basic research is the structure of plant cell wall: the isolation, purification and structural elucidation of cell-wall polysaccharides. In the area of applied research, his main interest is in food carbohydrates: the preparation, functional properties, analysis, and nutritional evaluation of dietary fibre (non-starch polysaccharides) and food hydrocolloids (soluble polysaccharides). He is experienced in food technology, especially the value-added processing of grain legumes. Instrumental and



chemical analysis of food composition also forms part of his academic pursuits.

He is married, and has two children. He likes playing soccer, bridge and Chinese chess.

Dr. Lin Hui

Lecturer, Department of Geography

Dr. Lin Hui joined The Chinese University of Hong Kong in August 1993 and currently teaches courses on remote sensing, geographic information system (GIS) and cartography in the Department of Geo-



graphy. His major research interests are GIS design, integration of GIS, remote sensing and spatial/temporal modelling, visualization of multi-dimension geographic data, and multimedia investment environment information systems.

Dr. Lin graduated from Wuhan Technical University of Surveying and Mapping in China in 1980, majoring in aerial photogrammetry engineering. He obtained his M.Sc. in remote sensing from the Chinese Academy of Sciences in 1983, and his MA and Ph.D. degrees from the State University of New York (SUNY) at Buffalo in 1987 and 1992 respectively. Before joining The Chinese University of Hong Kong, Dr. Lin worked as a postdoctoral researcher in the Great Lakes Program conducted by the Engineering School of SUNY at Buffalo and

funded by the US Environment Protection Agency. His major duty was to integrate GIS and water quality modelling systems.

In 1992, Dr. Lin was elected first president of the Association of Chinese Professionals in Geographic Information Systems (Abroad) — CPGIS, an electronic mail network which serves as a bridge between Chinese GIS professionals and their colleagues outside China. He is currently director of the CPGIS Hong Kong Information Exchange Station. Dr. Lin is also a member of the board of directors of the Chinese Association of GIS. Last year, he was invited to serve as a member of the Academic Committee of the Jiangxi Provincial Centre for Remote Sensing and Information System at the Jiangxi Academy of Sciences, China. He is also visiting professor of the School of Resource and Environmental Sciences at Beijing Normal University. Dr. Lin is editor-in-chief of the book *The Development and Potential of GIS*, published by Science Press in Beijing in 1993.

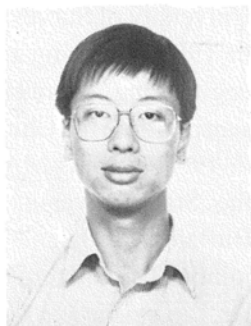
In his leisure time, Dr. Lin enjoys listening to music, travelling, reading history, and playing volleyball.

Dr. Lin Hui is married, with a seven-year-old son.

Dr. Hon-ki Tsang

Lecturer, Department of Electronic Engineering

Dr. Hon-ki Tsang read engineering at Cambridge and completed his doctoral studies in optoelectronics in 1990. He then went to New Jersey, USA, to work at Bell Communications Research Inc. (Bellcore) as a consultant on a project on optical waveguide



modulators. After the successful completion of the project in 1991, Dr. Tsang obtained a two-year postdoctoral fellowship to work in the School of Physics at the University of Bath. He was nominated in the same year as one of the most promising young scientists in the UK and was invited to speak at the Rank Prize Fund Symposium.

At Bath, Dr. Tsang's research effort was focused on photon absorption and ultrafast all-optical switching. There he worked in close collaboration with researchers at St. Andrews University and Glasgow University in the UK, and with researchers from Bellcore. They were amongst the first in the world to demonstrate the possibility of using semiconductor optical waveguides for switches which could operate in one ten-millionth millionth of a second (0.1 picosecond). Dr. Tsang also participated in a NATO-funded project at Bellcore on tuneable optical filters before joining CUHK in September 1993. He has published some 20 papers, and his main research interests include semiconductor optical waveguide modulators, nonlinear switching in semiconductor optical waveguides, optical waveguide filters and picosecond pulse generation in diode lasers.

Dr. Tsang is also a keen player of international chess.

Dr. Xiaodong Yue

Lecturer, Department of Educational Psychology

Born in Beijing in 1959, Dr. Xiaodong Yue was brought up in Huhehot, Inner Mongolia. He went to Beijing Second Institute of Foreign Languages for his college education, and furthered his studies at Canberra College of Advanced Education in Australia. He graduated in March 1983 with a Diploma in Teaching English as a Second Language, and then re-

turned to his *alma mater* in Beijing, where he taught English for three years.

The thirst for more knowledge drove him to go overseas again in 1986. This time he went to Tufts University in Boston and obtained an MA degree in Educational Psychology in 1987. He then specialized in counselling psychology at Harvard Graduate School of Education, and was awarded an Ed.D. degree in Human Development and Psychology in June 1993. Dr. Yue joined the Faculty of Education of The Chinese University last August and has been teaching psychology courses since.

Dr. Yue's academic interests cover Chinese psychology and the development of psychological and career counselling services in Hong Kong. He is currently conducting a survey on occupational stress among school counsellors in Hong Kong.

Dr. Yue is married, with a four-year-old daughter. He loves reading, travelling and playing table-tennis.



in the master's programmes of the Institute of Mathematics in Fudan, specializing in operations research and control theory, and was advanced to Ph.D. candidature in 1986 without being required to complete his master programme or to take any qualifying examinations. During 1987-88, he visited Keio University in Japan on a fellowship as a joint doctoral student. He received his Ph.D. (*cum laude*) in July 1989, and his doctoral thesis was highly commended by the thesis committee.

From 1989 to 1991 Dr. Zhou visited Kobe University as a postdoctoral fellow through the sponsorship of the Japanese Government. He spent the following two years visiting the Faculty of Management at the University of Toronto with support from The Manufacturing Research Corporation of Ontario. He was awarded the prestigious Alexander von Humboldt Fellowship of Germany in 1991. He joined the Department of Systems Engineering of CUHK in August 1993.

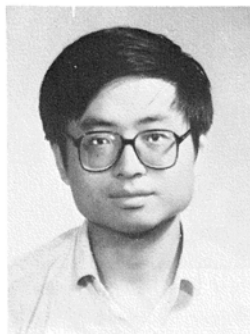
Dr. Zhou's major research areas include optimal control, operations management, operations research, and applied probability. He has published over 20 papers in journals of such international standing as *IEEE Transactions on Automatic Control*, *IEEE Transactions on Robotics and Automation*, and *SIAM Journal on Control and Optimization*. He has participated in many international conferences and workshops and presented numerous papers. He has also served as referee for various journals. He is a member of the Society for Industrial and Applied Mathematics, and his biography is included in *Who Will Be Who in the 21st Century*, *The Dictionary of International Biography* (23rd Edition), edited by The International Biographical Centre of England in 1993.

Dr. Zhou is married, with a two-year-old son. He loves music, travelling, movies, and reading detective stories. He speaks Mandarin, English, and Japanese.

Dr. Xunyu Zhou

Lecturer, Department of Systems Engineering

Dr. Xunyu Zhou was born in Jiangsu Province, China in 1965. He was admitted to the Mathematics Department of Fudan University at the age of fifteen and obtained his B.Sc. degree in 1984. He then enrolled



News in Brief

Council News

Vice-Chairman

Dr. James Z.M. Kung has been elected vice-chairman of the University Council for two years from 19th January 1994.

New Member

Mr. Tony Fung has been appointed by the Chancellor as a member of the University Council for three years from 20th October 1993.

New Head of Shaw College

Prof. Yeung Yue-man has been appointed by the University Council as head of Shaw College for four years from 11th February 1994, succeeding Prof. C.N. Chen.

University Treasurer Awarded OBE

Dr. Alice Kiu-yue Lam, Council member and treasurer of the University, was made an Officer of the Order of the British Empire (OBE) on the Queen's New Year Honours List announced on 31st December 1993.

Professor of Mathematics Awarded Crafoord Prize

Prof. Yau Shing-tung of the Department of Mathematics has been awarded the prestigious Crafoord Prize by the Swedish Academy of Sciences.

The prize which is worth US\$300,000 will be presented in September and Prof. Yau will share it with another mathematician, Simon Donaldson of Oxford.

Prof. Yau's contributions to differential geometry have won him the award. His work has helped prove Einstein's geometric interpretation of gravity and deepen the understanding of such phenomena as black holes in space.

Fostering Ties and Building up Connections

The vice-chancellor spent two weeks in New York and San Jose in February visiting institutions of higher learning and major foundations, and introducing the University and Hong Kong to the Americans.

Early in the trip he visited Yale University and discussed with its president Prof. Richard C. Levin joint initiatives to strengthen collaborative research and foster faculty and student exchanges. He then met with representatives of the New York University and the Institute of International Education, and gave talks at the New York Academy of Sciences, and at the Hong Kong Association of New York Seminar. At the seminar he was warmly greeted by a large group of CUHK alumni.

Prof. Kao then flew to San Jose, California to preside over the International Management Committee meeting of the International Conference on Integrated Optics and Optical Fibre Communications, and gave a talk to the Photonics Society of the Chinese Americans.

In both New York and San Jose the vice-chancellor visited potential donors including the AT & T Foundation, the Henry Luce Foundation, and the Starr Foundation to enlist funding support for the University's research and development programmes.



Prof. & Mrs. Kao with President Richard Levin of Yale University (right 2), Mr. Christopher R. Reaske (right 1), Director of Corporate & Foundation Relations at Yale, and Mr. Jacob Leung (left 1), University Secretary, CUHK.

HK\$18 Million for Research and Development

A donation of HK\$18 million was recently received from Dr. William M. W. Mong to set up a Shun Hing Research and Development Fund at the University. The donation was made through the Shun Hing Education and Charity Fund Ltd. to commemorate the 40th anniversary of the Shun Hing group. One sixth of the amount has been earmarked for developing an open system for Chinese computing.

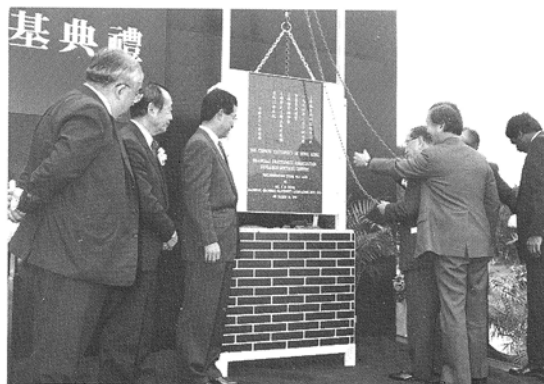


Previous donations by Dr. Mong have helped launch scholarship funds, establish the Mong Kwok Ping Computer Communication Laboratory, and finance the United Nations Fellows Training Programme.

To give permanent recognition to his contributions, the University will name a new science building after Dr. Mong. The building is to be constructed on the central campus to the northeast of the Choh-Ming Li Basic Medical Sciences Building. On completion in 1996 it will accommodate the departments of pharmacy and biochemistry, and provide well-equipped lecture halls, classrooms and function rooms.

New Research Services Centre Funded by Shanghai Benefactors

The foundation stone of the Shanghai Fraternity Association Research Services Centre was officially laid on CUHK campus on 14th March 1994. Prof. Charles K. Kao, the vice-chancellor, Mr. C.W. Wong, chairman of the Shanghai Fraternity Association (HK) Ltd., Mr. Zhang Junsheng, deputy director of Xinhua News Agency (HK) Branch, and Mr. Weng Xinqiao, head of the Agency's Department of Culture and Edu-



cation, officiated at the ceremony.

The centre will be built on the eastern campus and contain five storeys with a gross floor area of 4,600 square metres. Upon its completion in 1995, the new building will house the Technical Services Unit, operating theatre suites, animal rooms, and laboratories for histology, microbiology and radioisotope.

The vice-chancellor thanked the Shanghai Fraternity Association (HK) Ltd. for its staunch support to the University over the years, and for the generous donation of HK\$13,500,000 towards the construction cost of the new centre. The building will provide the much needed facilities for the University's vigorous research programmes.

A New Student Hostel on Chung Chi Campus

A new student hostel, the Lee Shu-Pui Hall, was completed on the Chung Chi campus.

Located on Progress Road, the eight-storey building provides 300 hostel places for Chung Chi students. It was funded partly by a generous donation of HK\$7.5 million from Sir Quo-wei Lee, chairman of the University Council, and has been named in



honour of the late Mr. Lee Shu-Pui, the beloved father of Sir Quo-wei.

Professorial Appointment

Prof. Mark O.M. Tso has been appointed professor of ophthalmology and visual sciences from 1st March 1994.

Born in 1936, Prof. Tso received his medical education at the University of Hong Kong and obtained his MBBS degrees in 1961. He furthered his studies in the States and received training in ophthalmology and anatomic pathology in different hospitals including the University Hospital at Boston, the Armed Forces Institute of Pathology, the Walter Reed Army General Hospital, and the University of Illinois Hospital.

Before joining The Chinese University, he was professor of ophthalmology at the University of Illinois at Chicago, a post which he had held since 1976. He was concurrently director of the Georgiana Theobald Ophthalmic Pathology Laboratory and the Macula Clinic at the University of Illinois. He also served as medical director of the eye bank of the Lions of Illinois Eye Research Institute from 1989 to 1994.

Prof. Tso is a member of many professional societies, including the National Institute of Health, the American Academy of Ophthalmology, the National Eye Institute, and the National Society to Prevent Blindness. He was president of the American Association for Ophthalmic Pathologists from 1979 to 1986.

Prof. Tso is married, with two children.



Professorial Inaugural Lectures

Two professorial inaugural lectures were given between February and March 1994:

- Prof. Kenneth Raymond, professor of pharmacy, delivered his inaugural lecture entitled 'Pills, Potions, and Politics' on 4th February.
- Prof. Byron S.J. Weng, professor of government and public administration, delivered his inaugural lecture entitled 'Sovereignty Split—A Pre-theory of Divided Nations' on 11th March.

University Members Serving on External Committees

The following members of the University have been appointed/reappointed by His Excellency the Governor as members of various boards and committees:

- Dr. Lam Kin Che, senior lecturer in geography, as a member of the Town Planning Appeal Board and the Advisory Council for the Environment for two years from 18th November 1993 and 1st January 1994 respectively.
- Prof. Charles K. Kao, vice-chancellor, as a member of the Steering Committee on the British Nationality Scheme for two years from 1st January 1994.
- Prof. P.C. Leung of the Department of Orthopaedics and Traumatology, as a member of the Council of the City Polytechnic of Hong Kong for one year from 1st January 1994.
- Prof. Yeung Yue-man of the Department of Geography, as a member of the Board of Kowloon-Canton Railway Corporation for two years from 1st February 1994, and as a member of the Hong Kong Housing Authority from 1st April 1994.
- Prof. K.M. Chan of the Department of Orthopaedics and Traumatology and Prof. T.E. Oh of the Department of Anaesthesia and Intensive Care, as members of the Health and Medical Development and Advisory Committee for two years from 1st March 1994.
- Mr. Andrew W.F. Wong, Lecturer in government and public administration, as a member of the Bilingual Laws Advisory Committee from 4th March 1994 to 31st August 1995.
- Prof. Leslie Young of the Department of Finance, as a member of the Committee on Management and Supervisory Training of the Vocational Training Council from 18th March 1994 to 31st March 1995.
- Dr. Wong Kin-yuen, director of the Office of International Studies Programmes, as a member of the United Kingdom/Hong Kong Scholarships Committee for two years from 1st April 1994.
- Dr. Chan Wing Wah, senior lecturer in music, as a member of the Hong Kong Arts Development Council from 15th April 1994.
- Dr. Fanny M.C. Cheung, reader in psychology, as a member of the Police Complaints Committee until 31st December 1994.

- Prof. Natalis Yuen, honorary professor of the Department of Community and Family Medicine, as a member of the Police Complaints Committee for two years from 1st March 1993, as a member of the Council of City Polytechnic of Hong Kong for one year from 1st January 1994, and as chairman of the School Medical Service Board from 1st April 1994.

CUHK to Coordinate Inter-institutional Broadband Communications Network

The University recently received HK\$1.78 million from the Research Grants Council of the University and Polytechnic Grants Committee to set up an Inter-institutional Broadband Communications Network Testbed.

The network will be based on Asynchronous Transfer Mode (ATM) technology, which has been adopted worldwide to transport data and switch information traffic on the Broadband Integrated Service Digital Network (B-ISDN). It will greatly facilitate research in network control and management, and the development of network services and applications. Its high speed and multimedia transport abilities will also open up new ways of conducting collaborative research.

The proposal to install such a network was made by The Chinese University and supported by the University of Hong Kong and the Hong Kong University of Science and Technology. The system will consist of three switches, one to be installed at each university. They will be linked by optical fibres and the facilities at each site will be managed separately, with The Chinese University coordinating the overall activities.

HK\$1 Million from Croucher Foundation for Environmental Research

An environmental research project proposed by Dr. Yee Leung, director of the Centre for Environmental Studies, recently obtained financial support to the tune of HK\$1,057,000 from The Croucher Foundation.

Entitled 'An Environmental Decision Support System for Water Pollution Control of the Tidal River Network in the Pearl River Delta', the project aims at developing an analytical paradigm and an intelligent environmental decision support system for the management of tidal river networks in general and the Pearl River Delta in particular. A component

part of the research is a specific application of the system to water pollution control in the Pearl River Delta for evaluation and improvement.

Research in Collaboration with UK Universities

Eight research projects proposed by staff members of the University will receive grants totalling £48,991 from the UK/HK Joint Research Scheme. The scheme was established in 1991 by the British Council and the Research Grants Council of Hong Kong to promote cooperation in research between institutions of higher education in the UK and Hong Kong, and the University has received funding support from the scheme for the last two years. The eight projects to be supported this year are:

<i>Project Title</i>	<i>CUHK Investigator(s)</i>	<i>Amount Awarded</i>
Regulation of Cellulose Genes in the Oyster Mushroom <i>Pleurotus</i>	Dr. Kwan Hoi-Shan (Biology) Prof. S.T. Chang (Biology) Dr. J.A. Buswell (Biology)	£6,696
MOCVD Growth of AlGaAs, AlInAs and AlGaInP Using TBAs, TBP	Dr. C.C. Hsu (Electronic Engineering)	£6,429
A Multi-Paradigm Programming Design Methodology	Dr. Jimmy Lee (Computer Science)	£6,691
Theory of Photonic Band-gap Materials	Dr. Hui Pak-Ming (Physics)	£5,236
Structural Studies on Some Flavour Proteins and Anti-Tumour Agents	Prof. Thomas Mak (Chemistry)	£6,018
The Therapeutic Effect of Recombinant Epidermal Growth Factor in the Treatment of Neonatal Necrotizing Enterocolitis	Dr. P.B. Sullivan (Paediatrics)	£6,786
The Effects of NPY and GLP1 on Islet Gene Expression	Dr. Y.C. Lee (Physiology)	£5,714
A Comparative Study of Influences on Teachers' Beliefs and Classroom Practice in Hong Kong and UK Primary Schools	Dr. Benjamin Chan (Educational Administration & Policy)	£5,421

HK\$734,000 for Community Research on AIDS

A 'Community Research Programme on AIDS' proposed by Dr. Joseph Lau of the Centre for Clinical Trials and Epidemiological Research recently obtained a research grant of HK\$734,000 from the Council for the AIDS Trust Fund.

The first research programme of its kind in Hong Kong, the project aims at building up an infrastructure for AIDS research in the territory. Activities planned include monitoring public attitude towards AIDS and the development of the disease in Hong Kong, studying high-risk behaviour and the quality of life of HIV infected patients, and developing and evaluating community intervention programmes.

New Medical Advances

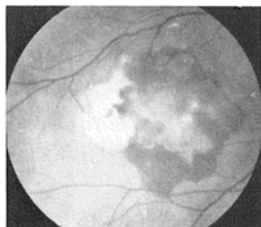
State-of-the-Art Eye Surgery at PWH

Eye doctors at the University's teaching hospital have successfully performed microsurgery to treat age-related macular degeneration (AMD).

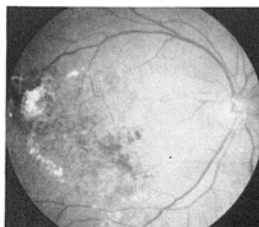
AMD is usually found in people aged 60 or above. It affects the central part of the retina called macula which governs visual acuity. It is not easily detectable in its early stage and there is as yet no treatment to stop its progression. In its active stage, blood vessels around the macula will bleed, resulting in the severe loss of central vision. When a dense scar is formed after the bleeding the patient's central vision will be damaged permanently.

Since late 1993 some 10 AMD patients have undergone microsurgery at the Prince of Wales Hospital (PWH) to have their scars removed. The operation involved excising the vitreous gel inside the eyeball and making a small incision on the retina next to the scar tissue. Through the incision delicate instruments were inserted to remove the scar from

Preoperative



Postoperative



beneath the retina and then out of the eye. The incision on the retina was then sealed with laser.

Such submacular surgery was first performed in the United States in 1991. The PWH is one of the few medical centres in the world capable of providing such treatment to patients with AMD, helping them to regain some of their central vision. For the first time in Hong Kong AMD becomes treatable by eye surgery.

New Hope for Infertile Men to Become Fathers

Doctors at PWH have devised a new technique to increase the success rate of test-tube fertilization. The first baby produced locally as a result of such a technique was delivered on 9th April by caesarean section.

In standard *in vitro*-fertilization (IVF), human eggs and sperms are mixed in a dish or a test tube, and the sperms are expected to make their own way into the egg to achieve fertilization. But when the sperms are too few or too weak to break through the egg's protective 'shell', then IVF will fail.



To make life easier for these sperms, doctors now introduce 'subzonal insemination': a fine glass tube thinner than a human hair is used to break through the shell of the egg and inject chosen sperms into the fluid between the shell and the cell membrane. If the egg is successfully fertilized by any sperm thus brought near, it will be replanted to the human uterus.

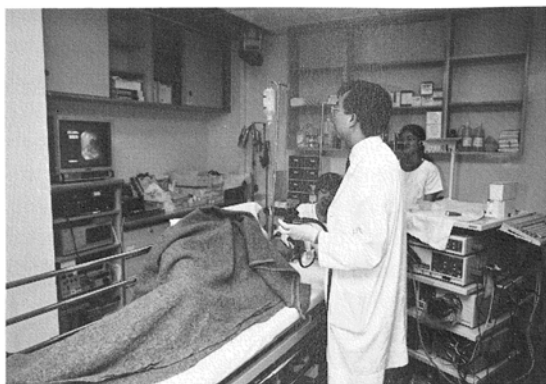
Such micro-manipulation of human eggs and sperms will require very sophisticated and expensive equipment and the success rate is only 10 per cent at the moment. Doctors at the Department of Obstetrics and Gynaecology will continue with their research

to improve the technique and increase the success rate.

A World-class Endoscopy Centre

With the opening of the Shaw Endoscopy Centre at PWH on 22nd April, more patients suffering from gastrointestinal diseases can be treated without major operations.

Endoscopy involves the use of sophisticated 'endoscopes' carrying tiny video cameras to probe the inside of the patient's abdomen. Doctors can make accurate diagnosis by looking at images transmitted onto television screens, and perform treatment by inserting surgical instruments through small puncture holes in the abdomen.



Endoscopy can minimize the risks and trauma of operation. And as postoperative discomfort is reduced and patients will recover much faster, a lot of hospital costs will be saved.

Officially opened by Mr. Zhang Junsheng, deputy director of the Xinhua News Agency, the centre was established through generous donations from the Shaw Foundation and the Olympus Optical Company. One of the most advanced units of its type in the world, it has a floor area of 500 square metres, and houses five endoscopy rooms, a waiting area, an eight-bed recovery ward, and a ward for cleaning and disinfection. Besides state-of-the-art video endoscopes, special features include digital x-ray equipment, a computerized image storage and reporting system, and a closed-circuit TV system for all endoscopy rooms.

The centre will provide better services for patients and facilitate training of doctors and nurses in new endoscopic techniques. A training programme for doctors from China and Southeast Asia is already under way.

New Postgraduate and Certificate Programmes

The University will launch seven new programmes in the academic years 1994-95 and 1995-96.

1994-95

Master of Philosophy Programme in Social Work
Master of Philosophy Programme in Sports Science and Physical Education

Certificate Course in English

Proficiency for Business Communication

Certificate Course in Advanced Information Systems

Certificate Course in Advanced Practical Computing

To be offered by the School of Continuing Studies

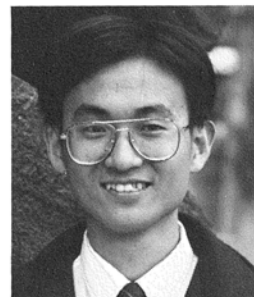
1995-96

Doctor of Philosophy Programme in History (replacing the existing Doctor of Philosophy Programme in Chinese History)

Doctor of Philosophy Programme in Translation

CU Student Wins Rhodes Scholarship to Study at Oxford

Mr. Wong Ming Fung, final-year finance major from the Faculty of Business Administration, has been chosen as the Hong Kong Rhodes Scholar for 1994. He will study law at Wadham College, Oxford for two years.



Mr. Wong emigrated to Hong Kong with his parents from Fujian 13 years ago. He won a place at The Chinese University in 1990 and will graduate this summer. He has been an active member of the University's debating team and the CU Youth Literary Association. His academic records have been outstanding and he has led study tours to Beijing and Taiwan. He impressed the Hong Kong Rhodes Scholarship Selection Committee as a young man with a 'determination to strive for the best'.

The Rhodes Scholarship was established under the will of Sir Cecil Rhodes and selected Rhodes Scholars are expected to possess high intellectual merit, outstanding scholastic attainment, pleasant personality, and physical vigour. United States

President Bill Clinton was a Rhodes Scholar in his younger days.

Imported Expertise Is Beneficial to Hong Kong, CU Debaters Successfully Argue

‘Import of mainland expertise is beneficial to the prosperity of Hong Kong’ — this was the motion of the 23rd Intersarsity Debating Contest held on 19th March at the Loke Yew Hall of the University of Hong Kong.

Arguing for the motion, the CUHK debating team defeated the HKU team 5:0 and won its second victory in two years. Miss Yu Ming Lai on CUHK team was also selected best speaker in the contest.

The intersarsity debating contest was first instituted in 1972. To maintain the impromptu nature of the debate and to encourage quick and creative thinking, the subject of the debate is disclosed to the contestants one hour before the debate.

The language used in the contest alternates between Cantonese and English each year. This year the debate was conducted in Cantonese.



Champion Again in Chemistry Olympiad

For two years in succession, the University's chemistry majors outdid their counterparts from other institutions of higher education and captured the champion trophy in the Hong Kong Chemistry Olympiad 1994.

The Fifth Hong Kong Chemistry Olympiad jointly organized by the Hong Kong Chemistry Society and the Royal Society of Chemistry was held at the Hong Kong Science Museum on 22nd January. This year all UPGC-funded tertiary institutions except Lingnan College took part in the competition.

Each team was given a topic at 5.00 p.m. one day before the competition, and was required to give 15-minute presentation on the day of the competition and to answer questions from a panel of judges and the floor. The CUHK team was given the topic ‘Perfumes’ and was selected by the judges as the team with the best performance.

Conferences and Lectures

- The Department of Architecture and the Centre for Planning, Architecture and Development jointly organized an international symposium on architectural developments in urban China (1898–1937) from 4th to 6th January 1994.
- The MBA Programmes held their second Entrepreneurship Dinner Talk on 26th January and Mr. Paul Kan, chairman and chief executive of the Champion Technology Group, was guest speaker for the evening.
- Chung Chi College hosted its annual education conference on biological technology and morality on 29th January 1994.
- United College held its annual workshop entitled ‘Freedom on Campus: Myth and Reality’ on 15th February 1994.
- The Cantonese Opera Research Project of the Department of Music organized a series of four seminars on the theme of Cantonese opera in February and March 1994.
- Prof. Chen Guu-ying, visiting professor of the Department of Philosophy at Peking University, gave a public lecture on Chinese ancient ideology on 22nd February 1994 at the invitation of the Institute of Chinese Studies.
- Prof. Jin Guantao, research fellow of the Research Centre for Contemporary Chinese Culture, spoke on ‘The Transformation of Chinese Society (1840–1956) — and the Fate of Its Ultrastable Structure in Modern Times’ on 25th March 1994 as the speaker of the K.Y. Chang Lectureship in Modern Chinese History organized by the centre.
- The Faculty of Education organized a conference on ‘Primary Education in the 21st Century: Directions for Development’ on 2nd April 1994.
- New Asia College and the University's Department of Anthropology, together with the French Centre for Contemporary Chinese Studies and the Guangdong Provincial Institute of Nationality Studies, jointly organized a

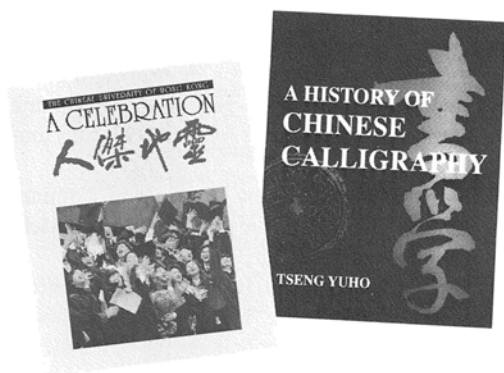
conference on 'Marriage Custom and Woman's Status in South China' from 12th to 13th April 1994.

- The Department of Fine Arts and the Art Gallery jointly held a symposium on tertiary art education in mainland China, Taiwan and Hong Kong from 13th to 15th April.

Award-winning Publications

Two books published by The Chinese University Press (CUP) won awards of merit in the fifth Hong Kong Print Award Competition jointly organized by the Hong Kong Publishing Professionals Society and the Hong Kong Graphic Arts Association.

The books are respectively entitled *The Chinese University of Hong Kong — A Celebration*, and *A History of Chinese Calligraphy*. The former is a photo record of the University published to commemorate its 30th anniversary. The latter describes in detail the origin and development of the six main scripts in Chinese calligraphy, and contains plenty of photographs of calligraphy by famous artists.



The Hong Kong Print Award Competition is an important annual event among local publishers and printers. Prizes are awarded to local publications with outstanding design and production quality. CUP publications have won prizes in the competition for the last five years.

Shaw College Celebrates Sixth Founder's Day

Over 200 guests, staff members and students attended Shaw College's sixth founder's day celebration on 12th January. Among the guests of

honour was Prof. Fei Xiaotong from Peking University. Speeches were delivered by Prof. Ma Lin, chairman of the college board of trustees, Prof. C.N. Chen, head of college, and representatives from the college student union and alumni association. Prizes were presented to students with outstanding academic performance.

College Visiting Scholars

- Prof. Fei Xiaotong, professor of sociology at Peking University, visited Shaw College in January as its Sir Run Run Shaw Distinguished Visiting Scholar 1993–94. During his week-long stay, he gave two public lectures entitled 'Stages of Recent Economic Development in Rural China' and 'From Ecology to Psychomental Complex'.
- Prof. Lap-chee Tsui, world renowned molecular and medical geneticist and expert in cystic fibrosis research from Canada, visited Chung Chi College as its Siu-lien Ling Wong Visiting Fellow from 23rd January to 4th February.

Prof. Tsui conducted a series of lectures covering a wide range of topics including 'My College Days', 'How I Capture Opportunity in Life', 'Biological Technology and Morality', 'The Current Overseas Chinese Society' and 'How to Foster Collaboration in Research'.

Exhibition of Paintings by Fine Arts Students

More than 80 paintings by fine arts students from mainland China, Taiwan and Hong Kong were displayed at the west-wing gallery of the Art Gallery from 14th April to 15th May 1994.

This was the first time that works of art by students from the three places had been exhibited together in Hong Kong. Jointly organized by the University's Department of Fine Arts and the Art Gallery, the exhibition features paintings in both Chinese and Western media by students from the Central Institute of Fine Arts, the Nanjing College of Arts, the China National Academy of Fine Arts, Sichuan Fine Arts Institute, Guangzhou Academy of Fine Arts, the Fine Arts Department of National Taiwan Normal University, the Fine Arts Department of Chinese Culture University, the Swire School of Design of the Hong Kong Polytechnic, and the Department of Fine Arts of CUHK.

Gifts and Donations

The University has recently received from local and overseas individuals and foundations the following gifts and donations in support of its programmes and projects:

- (1) From Shun Hing Group a pledged donation of HK\$18,000,000 for the establishment of the Shun Hing Research and Development Fund.
- (2) From the Association of Senior Staff Course Alumni HK\$10,000 annually to provide a scholarship for a student of either the Two-year or the Three-year MBA Programme.
- (3) From DHL International (HK) Ltd. HK\$20,000 to provide a scholarship for a student of either the Two-year or the Three-year MBA Programme in 1994–95.
- (4) From Du Pont China Limited HK\$16,000 to provide a scholarship for an electronic engineering student in 1993–94.
- (5) From Epson Foundation HK\$16,000 annually for three years to provide a scholarship for an information engineering student.
- (6) From Friends of the Art Gallery:
 - (a) HK\$5,000 to provide an outstanding thesis award for a postgraduate student in fine arts;
 - (b) HK\$20,000 to sponsor a summer work-study programme for fine arts students; and
 - (c) HK\$250,000 towards the acquisition fund of the Art Gallery.
- (7) From the Incorporated Trustees of Chiap Hua Cheng's Foundation HK\$420,000:
 - (a) to provide a graduate fellowship of \$15,000 for a Ph.D. candidate in electronic engineering in 1993–94;
 - (b) to provide 15 scholarships of \$17,000 each for outstanding students;
 - (c) to provide 20 bursaries of \$5,000 each for undergraduates who are in financial need; and
 - (d) to set up a student campus work scheme of \$50,000.
- (8) From Information Technology Management Club HK\$6,500 to provide a scholarship for a second-year student in computer science in 1993–94.
- (9) From Jackie Chan Charitable Foundation HK\$12,000 annually to provide two scholarships of \$6,000 each for students in music in 1993–94.
- (10) From the following donors to provide a scholarship for a postgraduate student in 1993–94:
 - (a) Mr. C.L. Kung HK\$2,000; and
 - (b) Dr. Francis K. Pan HK\$2,000.
- (11) From Sing Tao Foundation HK\$20,000 annually to provide four scholarships of \$5,000 each for academically outstanding students of the Department of Journalism and Communication.
- (12) From Soma International Ltd. HK\$30,000 annually to provide a number of loans for needy students.
- (13) From Standard Chartered Bank HK\$37,500 annually to provide three scholarships of \$12,500 each for students of the Faculty of Business Administration.
- (14) From Mr. Tse Man Shing HK\$3,000 to provide a scholarship for an academically outstanding student of New Asia College in 1993–94.
- (15) From T.Y. Wong Foundation HK\$11,000 annually for three years to provide four awards for students of the Management for Executive Development Programme.
- (16) From Younger Managers' Club HK\$7,350 to provide a scholarship for sponsoring a second-year student of the Two-year MBA Programme to participate in the Club's August 1993 study tour to Shanghai and Dalian.
- (17) From H.K. Chiu Chow Chamber of Commerce Ltd. HK\$138,000 for the publication of a festschrift in honour of Prof. Jao Tsung-i.
- (18) From Mr. Richard Hui HK\$10,000 for the printing of the catalogue for 'The Art of Li Jian and Xie Lansheng' exhibition held by the Art Gallery.
- (19) From Modern Educational Research Society Ltd. HK\$100,000 for the publication of *Cross-cultural Transplants: Western Social Science Theories in Chinese Societies*, edited by Prof. C.Y. To.
- (20) From Oriental Ceramic Society of Hong Kong HK\$78,000 for the printing of the catalogue for an exhibition on Chinese lacquer organized by the Art Gallery.
- (21) From Bristol-Myers Squibb (Hong Kong) Ltd.:
 - (a) HK\$50,000 to support a research project undertaken by the Department of Surgery; and
 - (b) HK\$10,000 to sponsor an international symposium on myocardial infarction organized by the Department of Medicine.
- (22) From the following donors to sponsor renal research activities undertaken by the Department of

Medicine:

- (a) Mr. Cheng Wai Man HK\$35,400;
 - (b) Ms. Daisy Li HK\$10,000; and
 - (c) Gale Well Ltd. HK\$100,000.
- (23) From Chiang Ching Kuo Foundation for International Scholarly Exchange:
- (a) US\$48,232.54 to support a research project on a computerized database of traditional Chinese texts undertaken by Prof. D.C. Lau of the Institute of Chinese Studies;
 - (b) US\$16,662.28 to support a research project on prehistoric culture of coastal Southeast China undertaken by Mr. Tang Chung of the Centre for Chinese Archaeology and Art; and
 - (c) US\$55,587.32 to sponsor the fourth conference on modernization and Chinese culture organized by the Faculty of Social Science.
- (24) From Ciba-Geigy Services Representative Singapore HK\$50,000 to support a research project on heart and hypertension undertaken by the Department of Medicine.
- (25) From the Committee of Education and Publicity on AIDS HK\$5,000 to support an AIDS project undertaken by the Department of Nursing.
- (26) From District Grand Lodge of Hong Kong & the Far East:
- (a) HK\$55,000 to support a research project undertaken by Dr. Thomas Lee Hun-tak of the Department of English;
 - (b) HK\$24,600 to support a research project on the architectural form of Tianhou Temple undertaken by Dr. Ho Pauy-peng of the Department of Architecture; and
 - (c) HK\$25,000 to sponsor a research project undertaken by Mr. Andrew Li I-kang and Dr. Ho Pauy-peng of the Department of Architecture.
- (27) From Ferring Pharmaceuticals Limited:
- (a) HK\$15,000 to support a research project undertaken by the Department of Obstetrics and Gynaecology; and
 - (b) HK\$50,000 to support a research project undertaken by the Department of Paediatrics.
- (28) From F. Hoffmann-La Roche & Co. US\$1,000 to support a research project undertaken by the Department of Paediatrics.
- (29) From the Hong Kong College of General Practitioners HK\$15,000 to the Department of Surgery for research and educational purposes.
- (30) From Hong Kong Medical Supplies Ltd. HK\$5,000 to support a research project undertaken by the Department of Microbiology.
- (31) From Janssen Pharmaceutica HK\$25,000 to support a pharmacodynamic trial undertaken by the Department of Medicine.
- (32) From KDD Hong Kong Limited US\$20,000 towards the International Postgraduate Research Fellowship scheme to sponsor Mr. Hu Guoqing, lecturer of Xian Jiaotong University to do research on computational mathematics in the Department of Information Engineering.
- (33) From Ms. Lam Shu Hing HK\$200,000 to support osteoporosis research undertaken by the Department of Medicine.
- (34) From Mr. Lee Ting Kai HK\$50,000 to the Department of Orthopaedics and Traumatology for educational and research purposes.
- (35) From 梁婉嫻女士 HK\$100,000 to support researches on liver cancer and children cancer undertaken by the Faculty of Medicine.
- (36) From Merck Sharp & Dohme (Asia) Ltd.
- (a) HK\$6,000 to support a research study on lipid lowering therapy in the elderly undertaken by the Department of Chemical Pathology; and
 - (b) HK\$45,000 to sponsor a staff member of the Department of Medicine to attend the 26th annual meeting of the American Society of Nephrology held in Boston, USA.
- (37) From Oriental Press Charitable Fund Association:
- (a) to the Department of Orthopaedics and Traumatology:
 - (i) HK\$11,616 for the burns research project;
 - (ii) HK\$18,000 for the purchase of three sets of finger lengthening apparatus; and
 - (b) to the Department of Surgery:
 - (i) HK\$600,200 to support the expenses of children liver transplantation;
 - (ii) HK\$11,880 to support the Skin Bank.
- (38) From Parke-Davis, Division of Warner Lambert HK\$85,000 to support a clinical trial undertaken by the Department of Medicine.
- (39) From Roche Pharmaceuticals and Chemicals Ltd. to the Department of Medicine:
- (a) HK\$50,000 to support a clinical study; and
 - (b) HK\$140,735 to support a clinical trial.
- (40) From Sanofi Winthrop H.K. Ltd. HK\$4,320 to support neurological research undertaken by the Department of Medicine.
- (41) From Sandoz Pharmaceuticals Ltd.:
- (a) to the Department of Community and Family Medicine HK\$40,000 to support a study of bone mass in Chinese women;
 - (b) to the Department of Clinical Pharmacology HK\$60,000 to support a research project on management of hyperlipidemia and hypertension;
 - (c) to the Department of Medicine:

- (i) HK\$50,000 to support a research project on management of dyslipoproteinemia;
- (ii) HK\$150,000 to support a research;
- (iii) HK\$20,000 to support the medi-vision educational programme;
- (d) to the Department of Clinical Oncology HK\$100,000 to support the educational programmes on cancer management and research; and
- (e) to the Department of Paediatrics:
 - (i) HK\$13,000 to sponsor a staff member to attend the fifth Asian sandimmun workshop held in Taipei;
 - (ii) HK\$35,000 to sponsor a staff member to attend the 18th international congress of chemotherapy held in Stockholm, Sweden.
- (42) From Snow Brand Milk Products Co. Ltd. HK\$300,000 to support a research project on Infant and Childhood Nutrition undertaken by the Department of Paediatrics.
- (43) From Zindart (De Zhen) Foundation HK\$50,000 to the Department of Psychiatry for research purposes.
- (44) From various donors HK\$527,000 to support a research programme on Cantonese opera undertaken by the Department of Music.
- (45) From Allen & Hanburys HK\$8,746 to sponsor a seminar jointly organized by the Department of Surgery and the American Academy of Otolaryngology — Head and Neck Surgery.
- (46) From Armedic Far East Ltd. to the Department of Medicine:
 - (a) HK\$11,000 to sponsor a staff member to attend the 29th congress of the European Association for the Study of Diabetes held in Istanbul; and
 - (b) HK\$15,000 to sponsor a staff member to attend the 66th scientific sessions of the American Heart Association held in Atlanta, USA.
- (47) From Associated Medical Supplies Co. HK\$8,000 to sponsor a staff member of the Department of Medicine to attend the 26th annual meeting of the American Society of Nephrology held in Boston, USA.
- (48) From Astra Pharmaceuticals (HK) Limited:
 - (a) HK\$21,000 to sponsor a staff member of the Department of Anaesthesia and Intensive Care to attend the Hong Kong College of Anaesthesiologists Scientific Meeting; and
 - (b) HK\$28,000 to sponsor a staff member of the Department of Medicine to attend a gastroenterological conference held at Amelia Island, USA.
- (49) From B. Braun Medical (HK) Ltd. HK\$10,000 to sponsor a staff member of the Department of Medicine to attend an international workshop held in Cambridge, UK.
- (50) From Bei Shan Tang Foundation Limited:
 - (a) HK\$110,400 to sponsor a project conducted by Prof. Jao Tsung-i on Shang oracle bones;
 - (b) HK\$180,984 to sponsor the 1994 International Conference on Ya Zhang and Painted Potteries organized by the Centre for Chinese Archaeology and Art;
 - (c) HK\$10,000 to sponsor the second international conference on Chinese paleography organized by the Department of Chinese Language and Literature; and
 - (d) HK\$260,000 towards the acquisition fund of the Art Gallery.
- (51) From Boehringer Ingelheim (HK) Limited HK\$15,000 to sponsor a staff member of the Department of Medicine to attend the third congress of the Asian Pacific Society of Respiratory held in Singapore.
- (52) From Burroughs Wellcome & Co. (HK) Ltd. HK\$8,000 to sponsor a staff member of the Department of Surgery to attend the second postgraduate course in middle ear surgery and temporal bone dissection held in Manila.
- (53) From the following donors to sponsor a staff member of the Department of Surgery to attend the first Asian Pacific congress of endoscopic surgery held in Singapore:
 - (a) Cyanamid (Far East) Limited HK\$4,000; and
 - (b) Johnson & Johnson Medical Hong Kong HK\$12,980.
- (54) From the Committee on the Promotion of Civic Education HK\$50,000 to The Chinese University Press to support the production of a video programme on conducting group meetings in schools.
- (55) From the following donors for setting up student campus work schemes in 1993–94:
 - (a) Chou's Foundation HK\$40,000; and
 - (b) The Incorporated Trustees of Hsin Chong — K.N. Godfrey Yeh Education Fund HK\$80,000.
- (56) From Drs. Richard Charles and Esther Yewpick Lee Charitable Foundation:
 - (a) HK\$80,000 to sponsor Mr. Li Cong Dong of Tianjian University to be attached to the Faculty of Business Administration; and
 - (b) HK\$80,000 to sponsor Mr. Tu Jian of South China University of Technology to be attached to the Faculty of Business Administration.
- (57) From Eli Lilly Asia Inc. (Hong Kong Branch) HK\$21,840 to sponsor a staff member of the

- Department of Medicine to attend the American Association for the Study of Liver Diseases meeting held in Chicago, USA.
- (58) From Farmitalia Carlo Erba (HK) Ltd. HK\$15,000 to sponsor a staff member of the Department of Medicine to attend the seventh congress of the ASEAN Federation of Endocrine Societies held in Kuala Lumpur, Malaysia.
- (59) From Glaxo Laboratories HK\$40,000 to sponsor a staff member of the Department of Surgery to attend the 18th international congress of chemotherapy held in Stockholm, Sweden.
- (60) From Glaxo Hong Kong Limited:
- HK\$45,000 to sponsor a staff member of the Department of Paediatrics to attend the 29th American Society of Clinical Oncology meeting held in Orlando, USA;
 - HK\$15,000 to sponsor a staff member of the Department of Pharmacy to attend the continuing education course of the Pharmaceutical Society of Australia held in Darwin, Australia; and
 - HK\$10,000 to support the production of television educational programmes by the Department of Medicine.
- (61) From Hang Seng Bank Limited:
- HK\$35,000 to support student extracurricular activities in 1993–94; and
 - HK\$200,000 for unspecified purposes at the vice-chancellor's discretion in 1993–94.
- (62) From the following donors to sponsor the general expenses of the Beijing English Summer Camp 1993 jointly organized by the Department of English of CUHK and the English Department II of the Beijing Foreign Studies University:
- Hong Kong Pei Hua Education Foundation Limited HK\$10,000; and
 - Rotary Club of Shatin HK\$10,000.
- (63) From Hui Yeung Shing Memorial Foundation Limited HK\$900,000 for the establishment of the Hui's Art Gallery at Cheng Ming Building, New Asia College.
- (64) From the Hong Kong Cancer Fund HK\$72,000 to sponsor the recruitment of a research associate of the Department of Clinical Oncology.
- (65) From Howmedica Hong Kong HK\$22,709.40 to sponsor a staff member of the Department of Orthopaedics and Traumatology to attend an international meeting held in Korea.
- (66) From Ikawa Educational Foundation HK\$220,000 to sponsor the exhibition on Japanese Art Treasures from the Tokyo Fuji Art Museum Collection organized by the Art Gallery.
- (67) From Johnson & Johnson (HK) Ltd. HK\$18,000 to sponsor a workshop on pelviscopic surgery organized by the Department of Obstetrics and Gynaecology.
- (68) From Prof. Douglas Lancashire £4,238 towards the discretionary fund of the Research Centre for Translation.
- (69) From Ms. Eva Li HK\$700,000 for improving the landscapes of United College campus.
- (70) From the Lion Club of Mt. Cameron, Hong Kong HK\$60,000 to support the Drug and Poisons Information Bureau under the auspices of the Department of Clinical Pharmacology.
- (71) From Mead Johnson Nutritional Group US\$5,000 to sponsor the third Commonwealth conference on diarrhoea and malnutrition to be organized by the Department of Paediatrics and the Hong Kong Paediatrics Society.
- (72) From Medtronic International Ltd. US\$3,824.76 to sponsor two staff members of the Department of Surgery to attend the 13th annual San Diego cardiothoracic surgery symposium held in USA.
- (73) From Mekim Limited HK\$40,000 to sponsor a staff member of the Department of Surgery to attend the 1994 inaugural world congress of the International Hepato-pancreato-biliary Association to be held in USA.
- (74) From Merrell Dow Pharmaceuticals HK\$20,000 to sponsor the Portman course on functional microsurgery of the ear and the workshop on the Hong Kong Flap in open mastoid surgery organized by the Department of Surgery.
- (75) From Otsuka Pharmaceutical Co. Ltd. HK\$15,000 to sponsor a staff member of the Department of Clinical Pharmacology to attend the Asian conference of clinical pharmacology and therapeutics held in Yogyakarta, Indonesia.
- (76) From Providence Foundation Limited HK\$70,000 to support the mental handicap training programme organized by the Department of Psychology.
- (77) From Schering-Plough HK\$30,000 to sponsor a staff member of the Department of Paediatrics to attend a physicians meeting held in New Jersey, USA.
- (78) From Science International Corporation to the Department of Chemical Pathology:
- HK\$30,000 to sponsor staff members of the department to attend the International Federation of Clinical Chemistry conference held in Melbourne, Australia; and
 - HK\$1,500 to sponsor a staff member to attend the 10th international conference on human tumour markers held in Germany; and
 - 17 units of computer equipment.
- (79) From Sin Wai Kin Foundation Ltd. HK\$200,000 to sponsor 1993 CU Open Day activities.
- (80) From Smithkline Beecham Limited HK\$3,000 to

- support postgraduate activities of the Department of Obstetrics and Gynaecology.
- (81) From Smithkline Beecham Pharmaceuticals US\$1,515 to sponsor a staff member of the Department of Obstetrics and Gynaecology to attend an international meeting held in Chiang Mai, Thailand.
- (82) From Stryker Pacific Ltd.:
- (a) to the Department of Surgery:
 - (i) HK\$25,000 for the purchase of one set of computer for research purposes;
 - (ii) HK\$40,000 to sponsor a workshop; and
 - (b) to the Department of Obstetrics and Gynaecology HK\$12,000 to sponsor a staff member to attend a laparoscopic surgery course held in USA.
- (83) From Y.C. Woo & Co., Ltd. HK\$50,000 to sponsor a workshop organized by the Department of Surgery.
- (84) From Tsung Tsin Association HK\$90,000 to sponsor the annual expenses of the Overseas Chinese Archives of the Hong Kong Institute of Asia-Pacific Studies.
- (85) From Dr. Wilson T.S. Wang:
- (a) HK\$1,000,000 to sponsor the Wilson T.S. Wang International Surgical Symposium to be organized by the Department of Surgery; and
 - (b) HK\$650,000 to sponsor the Wilson T.S. Wang Distinguished International Professorship scheme for 1994–95.
- (86) From Prof. C.K. Yang US\$1,000 towards the Dr. C.M. Li Memorial Fund.
- (87) From the following donors for the purchase of equipment for a project undertaken by the Faculty of Medicine:
- (a) Mr. Yeung Sau Shing, Albert HK\$200,000; and
 - (b) Mr. Yeung Hoi Shing, Sonny HK\$100,000.
- (88) From Yeung Shing Land Investment Co. Ltd. HK\$23,235.96 to sponsor the visit of Prof. Boris Berman, Head of Piano Department, School of Music, Yale University, USA to the Department of Music of this university.
- (89) From various donors HK\$61,100 towards the Hong Kong Paediatric Bone Marrow Transplant Fund of the Department of Paediatrics.
- (90) From various donors HK\$28,000 towards the Family Medicine Development Fund of the Department of Community and Family Medicine.
- (91) From various donors HK\$240,846.60 towards The Chinese University of Hong Kong Alumni Fund.
- (92) From various donors HK\$3,066 to support the Chinese Pathologist Fellowship Programme jointly organized by the Department of Anatomical and Cellular Pathology and the Hong Kong Division of International Academy of Pathology.
- (93) From various donors HK\$20,000 to sponsor the 1993 CU Open Day.
- (94) From various donors HK\$5,999 to support the pathology training jointly undertaken by the Department of Anatomical and Cellular Pathology and the Hong Kong Division of the International Academy of Pathology.
- (95) From various donors gifts and donations totalling HK\$1,333,863.24 to Chung Chi College from April to September 1993.
- (96) From various donors 77 items totalling 256 pieces of art objects to the Art Gallery from January to July 1993.
- (97) From Mr. Georges W. Beau HK\$70,000 for setting up an endowment fund to provide an annual prize of \$2,000 for a medical student with outstanding academic performance in diagnostic radiology.
- (98) From Esso Hong Kong Ltd. HK\$19,000 annually to provide two scholarships of \$9,500 each for final-year students of the Two-year MBA Programme.
- (99) From Hong Kong Institute of Marketing HK\$3,000 annually to provide a scholarship for a student in marketing.
- (100) From Price Waterhouse an annual donation of two half-tuition fee awards for final-year or next to final-year students in professional accountancy.
- (101) From the Swatow Lodge No. 3705 EC HK\$20,000 to provide two bursaries of \$10,000 each for needy students.
- (102) From Ms. Ritsuko Setoguchi HK\$30,000 for the publication of the book entitled *A Study on the Textbooks of Mandarin in the Ryukyu Islands* under the auspices of Ng Tor-Tai Chinese Language Research Centre, Institute of Chinese Studies.
- (103) From Bayer China Co. Ltd. HK\$80,000 to support a research study undertaken by the Department of Microbiology.
- (104) From Chiang Ching Kuo Foundation for International Scholarly Exchange:
- (a) further donation of HK\$171,160 to support a research project on a computerized database of traditional Chinese texts undertaken by Prof. D.C. Lau of the Institute of Chinese Studies; and
 - (b) further donation of US\$33,716.79 for a research project on prehistoric culture of coastal Southeast China undertaken by Mr. Tang Chung of the Centre for Chinese Archaeology and Art.
- (105) From Chung-Hua Institution for Economic

- Research TWD600,000 to support a research project on indirect trade between Taiwan and mainland China via Hong Kong undertaken by Dr. Sung Yun-wing of the Department of Economics.
- (106) From Fandasy Co. Ltd. HK\$50,000 to support a clinical trial undertaken by the Department of Medicine.
- (107) From Hong Kong Medical Supplies Ltd. HK\$15,000 to support a research study undertaken by the Department of Surgery.
- (108) From Hong Kong Obstetrical and Gynaecological Trust Fund HK\$20,000 to support a research project undertaken by the Department of Obstetrics and Gynaecology.
- (109) From Kabi Pharmacia Far East Ltd. HK\$5,000 to support a research on constructing the first set of growth standard for Chinese children in Hong Kong undertaken by the Department of Paediatrics.
- (110) From the following donors to support the cardiology research undertaken by the Department of Medicine:
- (a) Mr. Stephen Leung HK\$400,000; and
 - (b) Merck Sharp & Dohme (China) Ltd. HK\$6,240.
- (111) From Merck Sharp & Dohme (Asia) Ltd.:
- (a) to the Department of Medicine:
 - (i) HK\$30,000 to support a research project;
 - (ii) HK\$72,000 to support a study;
 - (iii) HK\$15,000 to sponsor a staff member to attend an international conference held in Singapore; and
 - (b) to the Department of Clinical Pharmacology US\$35,000 to support a clinical trial.
- (112) From Oriental Press Charitable Fund Association:
- (a) HK\$500 to support the project on burns research undertaken by the Department of Orthopaedics and Traumatology; and
 - (b) HK\$5,375 to support the Skin Bank of the Department of Surgery.
- (113) From Pfizer Corporation:
- (a) to the Department of Surgery:
 - (i) HK\$15,000 to support a clinical trial;
 - (ii) HK\$10,000 to sponsor a Friday lunch time meeting; and
 - (b) to the Department of Microbiology HK\$50,000 to support a study.
- (114) From Pharmakon International Laboratory Ltd. HK\$500,000 to support a study jointly undertaken by the Department of Clinical Pharmacology and the Department of Pharmacy.
- (115) From Phytopharm Limited HK\$40,000 to support a clinical trial undertaken by the Chinese Medicinal Material Research Centre.
- (116) From Sandoz Pharmaceuticals Ltd.:
- (a) HK\$40,000 to support a research project undertaken by the Department of Medicine; and
 - (b) HK\$11,830 to sponsor a staff member of the Department of Surgery to attend the fifth Asian sandimmun workshop held in Taipei.
- (117) From the Social Services Committee, Tai Po District Board, HK\$25,000 to support a study on the needs for social services of youth in Tai Po undertaken by Dr. Law Wai On and Mr. Ngai Ngan Pun of the Department of Social Work.
- (118) From Mr. Wong Sze Ho HK\$30,000 to the Department of Surgery for research and educational purposes.
- (119) From Advanced Chemicals Ltd. HK\$50,000 to support research projects of the Department of Chemistry.
- (120) From various donors HK\$90,060 to support a research programme on Cantonese opera undertaken by the Department of Music.
- (121) From various donors HK\$83,000 to support the heart and hypertension research undertaken by the Department of Medicine.
- (122) From Astra Pharmaceuticals (HK) Ltd. HK\$10,000 to support the cardiac seminars organized by the Department of Medicine.
- (123) From BASF China Ltd. HK\$6,000 towards the Cardiac Seminar Fund for Scientific Programme of the Department of Medicine.
- (124) From Beijing-Hong Kong Academic Exchange Centre HK\$4,400 to sponsor the Chinese pathologists to attend the third annual scientific meeting jointly organized by the Department of Anatomical and Cellular Pathology and the Hong Kong Division of International Academy of Pathology.
- (125) From Bristol-Myers Squibb (Hong Kong) Ltd. HK\$15,000 to sponsor a staff member of the Department of Medicine to attend the molecular and cellular research course held in Orlando Marriott, Florida, USA.
- (126) From Burroughs Wellcome & Co. (HK) Ltd.:
- (a) HK\$20,000 to sponsor a staff member of the Department of Paediatrics to attend the 66th annual scientific meeting of the British Paediatric Association held in UK; and
 - (b) HK\$3,000 to sponsor a lunch seminar jointly organized by the Centre for Clinical Trials and Epidemiological Research and the Department of Community and Family Medicine.
- (127) From the following donors to support the international conference on Chiu Chow studies jointly organized by the Hong Kong Institute of Asia-Pacific Studies and the Institute of Chinese Studies:

- (a) Centre d'Anthropologie de la Chine du Sud et de la Peninsule Indochinoise HK\$10,000; and
- (b) Huachiew Chalermprakiet University HK\$20,000.
- (128) From Carl Zeiss Far East Co., Ltd. HK\$15,000 to sponsor the Portmann course on functional microsurgery of the ear and the workshop on the Hong Kong Flap in open mastoid surgery organized by the Department of Surgery.
- (129) From Mr. C.C. Chang HK\$100,000 to sponsor the K.Y. Chang Lectureship in Modern Chinese History in 1994-95 organized by the Research Centre for Contemporary Chinese Culture of the Institute of Chinese Studies.
- (130) From Dr. Chow Tsuen Cheung, Louis HK\$1,000 to support the Chinese Pathologist Fellowship Programme jointly organized by the Department of Anatomical and Cellular Pathology and the Hong Kong Division of International Academy of Pathology.
- (131) From the following donors to sponsor the annual dinner of the Department of Clinical Oncology:
- (a) Cyanamid (Far East) Ltd. HK\$10,000; and
- (b) Varian Pacific Incorporation HK\$15,480.
- (132) From Daiichi Pharmaceutical Co. Ltd. HK\$8,902 to sponsor a staff member of the Department of Surgery to attend a scientific meeting held in Thailand.
- (133) From General Electric International Operations Co. Inc., Hong Kong Branch HK\$20,000 to sponsor a staff member of the Department of Medicine to attend a meeting of the American Heart Association held in Atlanta, USA.
- (134) From Smithkline Beecham Ltd. to the Department of Medicine:
- (a) HK\$12,000 to sponsor a staff member to attend the ninth biennial scientific meeting of the Asian Pacific Association for the Study of the Liver held in Kuala Lumpur; and
- (b) HK\$25,000 to sponsor a staff member to attend the 57th annual scientific meeting of the American College of Rheumatology held in San Antonio, Texas, USA.
- (135) From Glaxo Laboratories HK\$15,000 to sponsor a staff member of the Department of Medicine to attend the ninth biennial scientific meeting of the Asian Pacific Association for the Study of the Liver held in Kuala Lumpur.
- (136) From Merck Sharp & Dohme (China) Ltd. HK\$1,970 to sponsor a staff member of the Department of Surgery to attend the Guangzhou Symposium.
- (137) From Organon (HK) Ltd. HK\$10,000 to sponsor the production costs of films on cardiology and paediatrics of the Department of Medicine.
- (138) From Parke-Davis, Division of Warner Lambert (HK) Ltd. HK\$10,000 to sponsor a staff member of the Department of Chemical Pathology to attend a conference on lipid treatment held in Taiwan.
- (139) From Roche Asian Research Foundation HK\$7,800 to sponsor a staff member of the Department of Paediatrics to attend the Jubilee International Colloquium held in Papua New Guinea.
- (140) From Sanofi Winthrop H.K. Ltd. to the Department of Paediatrics:
- (a) HK\$4,000 to sponsor a staff member to attend the fourth Asian and Oceanian congress of child neurology held in Thailand; and
- (b) HK\$6,000 to sponsor a staff member to attend the 11th meeting of the Chinese Paediatric Association held in Beijing.
- (141) From Sha Tin District Board HK\$50,000 to sponsor the Sha Tin District Preventive Programme on Diabetics organized by the Department of Medicine.
- (142) From Syntex Pharmaceuticals HK\$2,920 to sponsor a staff member of the Department of Surgery to attend the third congress of Asian Society of Transplantation held in Bangkok, Thailand.
- (143) From Takeda IMC Chemical Ltd. HK\$15,000 to sponsor a staff member of the Department of Obstetrics and Gynaecology to attend the eighth congress on *in vitro*-fertilization and alternate assisted reproduction held in Kyoto, Japan.
- (144) From Upjohn Company (HK) Ltd. US\$770 to sponsor a staff member of the Department of Surgery to attend the fourth biennial Asia-Pacific meeting on impotence held in Indonesia.
- (145) From the Vita Company HK\$8,630 to sponsor a staff member of the Department of Obstetrics and Gynaecology to attend a meeting of Asia Oceanic Federation of Obstetrics Gynaecology held in the Philippines.
- (146) From Wyeth (HK) Ltd. HK\$4,000 to sponsor the tutors' lunch meeting of the Department of Community and Family Medicine.
- (147) From Y.C. Woo & Co., Ltd. HK\$150,000 to sponsor a workshop organized by the Department of Surgery.
- (148) From various donors HK\$163,000 towards the Hong Kong Paediatric Bone Marrow Transplant Fund of the Department of Paediatrics.
- (149) From various donors HK\$175,825.55 to sponsor the Conference on Economic Development Across the Strait and Economic Cooperation in Asia-Pacific Region to be organized by the Hong Kong Institute of Asia-Pacific Studies.





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