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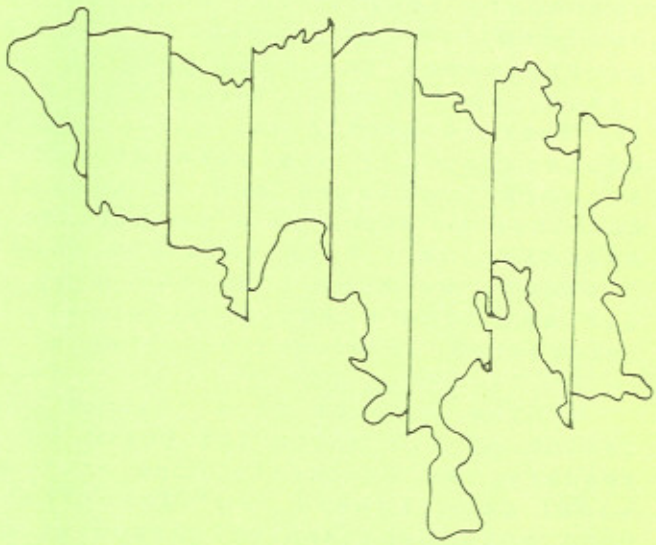

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WORDS FROM EDITOR

Some of the Association's members have repeatedly expressed that in the past couple of years that too much attention was placed on promoting scholarship at the research level; the Association's mission of fostering geographical education at the secondary level was often neglected. To some, the very success of the Association's publication, Asian Geographer, in establishing itself as an internationally rrecognized journal of scholarly works is a testimony to the increasing isolation of the Association from the thousands of professional geographers who are teaching at the secondary schools. In a sense, the present and also previous executive committees of HKGA share their concern. Of course, this is not to downplay the important contributions of previous executive committees and the editorial board of the Asian Geogrpher. Being a scholarly association, HKGA has the duty to further the advancement of geopraphy and to cultivate scholarly exchanges. We have to praise for the success of previous executive committees and the editorial board of Asian Geographer in achieving this. Certainly, every effort will be made to ensure continued international recognition of HKGA as a scholarly body. Yet we also feel that something has to be done to bridge the gap between works at the research frontier and the teaching of geography at the secondary level. For this the present executive committee decided to strengthen the Association's the other publication, the Hong Kong Geographer. Starting from this issue, each issue of the Hong Kong Geographer will contain (1) feature arcticles; (2) a forum on aspects of geographical education; (3) analysis of useful facts; and (4) news of schools, colleges and universities. In addition it will continue to serve as a newsletter publishing events about the Association. With this new format and hopefully, improved content, we hope that the Hong Kong Geographer can better satisfy the needs of secondary school teachers and others interested in geographical enquiry.

The success of a journal depends not only on the dedication of its editorial board but also on the support of the readers. We sincerely hope that more of Hong Kong's professional geographers can subscribe the journal by joining the Hong Kong Geographical Association. We also hope that more of Hong Kong's professional geographers submit articles, be they full length ones or short notes expressing opinions about aspects of geographical education in the Territory, for publication in the Hong Kong Geographer.

Last but not least the chief editor would like to thank members of the editorial committee for the many hours that they have put in editing the journal. The journal owes them a lot.

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SEMINAR ON THE NEW GEOGRAPHY SYALLBUS FOR FORMS/MIDDLE IV-V

Report

Date: 22.4.1987.
Time: 9:00 am - 12:00 am
Venue: Lecture Theatre, Grantham College of Education
Speakers: Mr. H. L. Law, Geography Section, Education Department,
Mr. K. C. Lai, Geography Section, Education Department,
Mr. K. P. Yeung, Geography Section, Education Department,
Ms. Margaret Chan, Curriculum Development Team, Education Department.

Why do we need a new syllabus ?

<LAI> The geography syllabuses in the 1960s and 1970s were said to be examination oriented. Students had to learn piecemeal and encyclopaedic geographical knowledge because they regarded physical and human geography as two unrelated fields of study. Moreover, repeated teaching of the same topic in different cases made learning of geographical concept redundant and ineffective.

<LAW & LAI> The new syllabus was an attempt to satisfy both academic and examination ends in the teaching of geography at certificate level. In addition, the new syllabus aimed at making the study of geography more worthwhile and meaningful in the 1980s.

How does it come about ?

<LAW> This was the first geography syllabus jointly prepared by the Education Department and the Examinations Authority. To draft the new syllabus, the opinions from both local and overseas geographers had been consulted. In April of 1984, the proposed new syllabus was sent to all the secondary schools participating in HKCEE. Of the 350 letters that had had been sent, 228 letters accepted the new syllabus, 120 made relevant sugestions and only 2 objections had been received.

The contents

<LAW & LAI> Man-land interaction was the central theme of the new syllabus. In this framework, the new syllabus could be divided into 4 main parts: i) land; ii) population; iii) man-land relationship and iv) issues arising from man-land

land relationship and iv) issues arising from man-land interaction. The final part was incorporated specifically to enhance the practicability of the certificate geography.

Recommended teaching schedule

<LAI> The following three modes of time allocation were suggested. It was assumed that the teachers had at least 160 periods for F.4 and F.5 geography.

MODE 1

F.4 Topics	No. of periods
Land	61
Population	12
Agriculture	19
	92

F.5 Topics	No. of period
Manufacturing	14
Urban	18
Issues	36
	68

MODE 2

F.4 Topics	No. of periods
Land	61
Natural hazards	10
Urban	18
Urban problems	8
	97

F.5 Topics	No. of periods
Population	12
Agriculture	19
Manufacturing	14
	63

MODE 3

F.4 Topics	No. of periods
Land	61
Natural hazards	10
Agriculture	19
	90

F.5 Topics	No. of periods
Population	12
Manufacturing	14
Energy	7
Urban	18
Urban problems	8
Pollution	7
Recreation	4
	70

Teaching Resources

<YEUNG> Application of various teaching resources in geography became popular recently. Any living or inanimate items used during the process of teaching were teaching resources. There were a range of resources available: verbal or pictoral, quantitative or symbolic, printed or displayable, projectable or even field resources could be used. To select an appropriate type of teaching resource, the aims and contents of the resource should be evaluated closely in association with the ongoing teaching strategy. For example, in the teaching of plate tectonics theory, the following sequence on the use of teaching resource was recommended: motivating materials -> textbooks -> reference books -> atlas -> activities -> magazines -> audio-visual resources. As a conclusion, the correct management by teachers would determine whether or not the use of teaching resources was successful.

Activities

<CHAN> Three activities were suggested for students learning geographical concepts in the class. First, the natural hazards in the Huang He Basin was chosen to illustrate how simulation game worked. Students had to throw dice in turn, to move the chess along the squares on the game sheet. They were required to answer related questions printed on the question cards, or follow the instructions on the chance cards. The game was over once one group of students completed all the squares on the game sheet. Worksheet for teaching of flood control was another piece of recommended activity. A short paragraph of simulated newspaper report was given to the students. After reading it, they had to answer structural questions upon the information given in the report. This enabled students developing skills of interpreting printed materials, as well as acquiring concepts of flood controls. Finally, on helping students understand how decision was made amongst different groups of people, a game of role playing was introduced. Students were asked to present the views on behalf of the peasants, village head, factory owners, village elders and officers of the H.E.P. department to make a decision on whether or not a multi-purpose water scheme should be constructed.

Open Forum

Q: To what extent would fieldwork be relevant to the new geography syllabus, and how was it related to those fieldworks required in matriculation syllabus ?

YEUNG: It was difficult to assess the relevance of fieldwork in the curriculum of geography. Generally, it was not necessarily examination oriented, but it gave an opportunity for the

students to realise how geographical theories were put into practice.

LAW: Fieldworks were relevant in the new syllabus in the sense man-land relationship could be testified deliberately. For information on certificate geographical fieldwork, one could refer to an article in Vol. 17 of Geography Bulletin.

LAI: An illustrative example of relevance of practical works in new geography syllabus could be cited in the case of landform study in various environments eg. glacial or desert. The emphasis would be on identification of landforms of various environments on maps or photo. In other words, study on formation of these landforms would become less important when compared to the current syllabus.

Q: Was there any significant connection between geography curriculum in lower (F.1-F.3), certificate (F.4-F.5) and matriculation (F.6-F.7) forms ?

LAW: Man-land interaction appeared to be the central theme stitching the curricula in these forms.

Q: Concerning the mountain building processes, was there any conceptual conflict between the theory of geosyncline in the current syllabus with the theory of plate tectonics in the new syllabus ?

LAI: In this aspect, the emphasis of the new syllabus would be on the description of characteristics of various mountain ranges, rather than the formation of an individual feature eg. a volcanic cone.

YEUNG: It was stressed that the new syllabus did not require encyclopaedic training. The sample questions distributed by the Geography Section of the Education Department could be used as a point of reference. Generally, all the approved textbooks could cope with the demand of this new syllabus.

Q: Could some teaching kits on the topics of natural disasters be prepared by the Geography Section ?

LAW: Even facing intense resources contraints, the Curriculum Development Committee was trying to prepare some new teaching kits in the future.

Q: To what extent map reading techniques were relevant in the new syllabus ? Why those textbooks on map reading techniques were not included in the recommended

reference list ?

LAW: It was more fashionable to integrate teaching of map reading techniques in the formal textbooks at certificate level.

Reported by

Cheung Chi Keung
Pun Kin Shing

July,1987.

ARTICLE

Energy Balance Based Climatology

CHOW Siu-choi

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Abstract: An endeavour has been attempted in the present paper to discuss and exemplify the relevance and values of the energy balance approach in the teaching and understanding of climatology in the Advanced Level Geography. The prerequisites for such an approach are also examined and justified.

I. Introduction

The revised Geography syllabus of the Hong Kong Advanced Level Examination, which will be implemented in 1987, appears to be more well-balanced than the last one in terms of its content.[1] It has covered most of the major sub-fields of the discipline and the students can be exposed to the most current development of the field. One major and essential change made is that the physical geography component has been much strengthened. Such a change not only meets the dual nature of the discipline, but also a firm and board foundation of geographical knowledge can be provided to the students. The syllabus emphasizes equally on the phyiscal and human geography as well as their intercourses. As stated in the syllabus, "the content of the curriculum focuses on the study of the man-environment system, that is, on the study of distinctive landscapes and of human and physical ecosystems" (Hong Kong Examination Authority, 1985). The author considers this as the first but important step toward the integration of the two major components of the discipline in the near future, which is one of the important tasks facing the contemporary geographers. The necessity for such an integrated grography has been well argued by Goudie (1986).

To teach such a broad and diverse syllabus is not a formidable task, but it does require much efforts of devoted teachers thoroughly trained in the discipline as well as in methods of teaching. However, due to the highly urbanized environment of Hong Kong, most students in Geography have developed their interests in the human rather than physical aspect of the discipline. The major reasons for the dislike of physical geography studies in Hong Kong can be summarized as follows:[2] (1) it has been widely held that the content of physical geography is duller than that of human geography, as many factual information have to be memorized, sometimes nearly in a verbatim manner; (2) the growth of knowledge in physical geography is thought to be not as rapid as in the

human counterpart and thus less exciting; (3) the small size of the territory and the dearth of natural landscape variety have adversely limited the opportunity to study and verify the subject matter in the fields, which is a more practical and efficient way of learning, and (4) some students even complain that the studies in physical geography involve too much knowledge on physical sciences, for instance, mathematics, physics and biology, which are generally considered to be very technical and not easy to learn. This is particularly the case in Hong Kong as Geography is traditionally considered an Arts subject, which is mostly chosen by students with limited background on physical sciences. As such, it is not surprising that the enrollment figures on the non-compulsory physical geography courses in the universities are quite low. It can be forseen that some graduates entering into the teaching profession may, therefore, encounter great difficulties in the teaching of physical geography.

Amongst the various sub-fields of physical geography, climatology is a sort of Cinderella to the ugly sisters of geomorphology and biogeography (Unwin, 1982). This field has attracted far less students than the other physical geography subjects. Climatology has long been misconceived as a discipline that deals entirely with the statistical treatment and book-keeping of the routinely measured meteorological data. Indeed, many previous works on climatic studies published in the major climatological or related journals are of this nature (Unwin, 1977). To many geography students, there is no intellectual excitment and the statistical methods are too difficult to comprehend (Brown, 1975). But yet it cannot be denied that the discipline is itself a quantitative science, there can be no escape from the use of mathematics and quantitative methods. Moreover, phenomena that can be quantified will be easily understood and explained. Given these facts, it has been argued that a budgetary approach is useful and valueable to climatic studies (Hare, 1976 and Terjung, 1976). The aims of this present paper are to justify and exemplify that the budgetary approach should be adopted in the teaching of climatology in the Advanced Level Geography. Such an approach is not only relevant, but also necessary.

II. Climatic Systems and Heat Balance Approach

Weather and climate have usually been differentiated on the basis of time. The former refers to the instantaneous state of the atmosphere, whereas the latter is the average or long-term state of the atmosphere. However, the atmosphere or its phenomena are not discrete, but parts of a continuum. Changes in one part will be accompanied by corresponding changes in other parts. Therefore, weather and climate are results of the interactions of the atmosphere sub-system and other sub-systems. The atmosphere sub-system is intimately and inextricably linked to other sub-systems, such as

hydrosphere, cryosphere, lithosphere and biosphere, which together constitute our climatic system. These sub-systems are not only locked together as a unifying system, but also are linked to conditions external to the system by a variety of complex physical processes. Those interactions dynamically force the system moving toward a state of equilibrium over time and space. Therefore, the climatic system is one of enormous complexity involving factors such as the solar radiation input, atmospheric composition, the earth's surface character and numerous coupling mechanisms that all involve processes of very different types and time scales (Unwin, 1982). In a system analytical view, the climate is a process-response system consisting of cascades of energy, mass and momentum which are linked reciprocally with the morphological components (Terjung, 1976).

To explain and understand the working of the climatic system and the resulting alterations, the properties and processes that are responsible for the climate have to be recognized and studied. The latter are, however, too complicated and too interrelated to be amenable to the traditional approach in the classical climatology during the first half of the twentieth century (Oke, 1978) and the causal (i.e. statistical) analysis of the past (Terjung, 1976). Indeed, such types of approach can only yield knowledge on the exploratory level, but not on the explanatory level and man-climate interactions.

Fundamentally, the state of the atmosphere, which is generally indicated by the various climatic elements such as temperature, precipitaion and wind, are largely governed by the amount of energy and moisture present. A heat or water balance approach is thus deemed to be indispensable and necessary for climatic studies. Budyko (1957) and Hare (1976) have stated that the basis of modern physical climatology are a study of the fundamental energy and water cycles of the earth-atmosphere system, i.e. the processes by which energy and mass are transformed, converted and stored. It is these complex interactions that force the response and determine the form of the atmosphere (Terjung, 1976). The case of the desert climatic system would be used to exemplify the values of such a balance approach. To avoid lengthy description, only the heat or energy balance of the tropical desert region would be considered.

It is well-known that the main characteristic of the desert area is its aridity and the persistence of such an arid climate. The great aridity and its persistence can be attributed to many causes, both natural (such as the blocking subtropical anticyclones, the rain shadow effect, the degree of continentality and the presence of offshore cold currents) and man-made (such as deforestation, grazing and so forth). However, all these causes can best be explained by examining the energy balance of the tropical desert region. As the readers can consult a good texbook on climatology concerning the natural causes of aridity in deserts, for instance, that

one by Lockwood (1980), this paper will only confine to the man-made causes.

To begin with, the energy balance of the desert region can be simply stated as follows:

$$Rn = H + LE + G \qquad (1)$$

where Rn is the net raidiation balance;
G is the heat conducted into the ground;
H is the senisble heat transfer; and
LE is the evaporative heat transfer.

The component Rn can be determined by:

$$Rn = Q(1-a) - Lu + Ld \qquad (2)$$

where Q is the total incoming shortwave radiation;
a is the surface albedo, 0.30 to 0.40 in deserts;
Lu is the outgoing longwave radiation; and
Ld is the downward atmospheric longwave radiation.

Many works have noted that the components in the equations (1) and (2) are quite sensitive to various man's influences. Shukla and Mintz (1982) have attributed the prolonged drought in desert areas to the lack of evapotranspiration. The latter process, represented by the term LE in equation (1), is an important mean by which water are returned to the atmosphere in the gaseous form. However, man has greatly disrupted this route by unending removal of desert vegetation for firewood, crop growing, animal grazing or for human settlement. Eventually, a positive feedback mechanism will be triggered off to bring about great aridity. The scarcity or absence of vegetation in deserts not only limits the amount of water vapour being returned to the atmosphere, but also the heat balance will be dramatically altered. As the LE component will become negligible, the equation (1) can be simplified to:

$$Rn = H + G \qquad (3)$$

In other words, the net amount of radiation has to be disposed via the terms G and H. Greater amount of heat will be added into the ground raising the ground surface temperature. The hotter ground surface will then greatly increase the heating of the lower atmosphere by the sensible heat transfer in the earth-atmosphere interface. The resulting higher air temperature will mean a higher moisture holding capacity of the air, i.e. a lower relative humidity. In addition to the trace amount of water vapour being returned to the atmosphere, the reason for the persistence of the aridity is thus obvious.

Another serious effect of vegetation removal on deserts is the increase of the surface albedo or reflectance. By using the simulation model method, Charney (1975) has

suggested that the surface albedo of deserts has been increased by a factor of more than 2 from 14% to 35%. Greater amount of incoming solar radiation will thus be reflected and the term Rn will become smaller. The great aridity over deserts can also be explained by the resulting changes in the energy balance due to the increase surface albedo. This is because the lower Rn will lead to lower heat fluxes into the ground and the atmosphere, i.e. there will be a net surface cooling, which will promote sinking motion of air. Since the sinking air are warmed up at the dry adiabatic rate, the desert conditions can thus be maintained.

Recently, the increased aerosol concentration has also been recognized as a cause of aridity over deserts. That the increased aerosol concentration over the arid and semi-arid areas is due to man's activities need not to be mentioned. Prospero et al. (1979) have noted that the Sahara Desert is one of the major source of atmospheric dust in the troposphere. It has been estimated that about 100 to 400 million tons have been blown over the Atlantic every year and reached Barbados and Miami. Such a great concentration of aerosols will increase the amount of incoming solar radiation being intercepted, which will lead to a greater heating of the upper atmosphere. On the other hand, less amount of solar radiation will reach the earth's surface, i.e. a net surface cooling. By using the remotely sensed data, Carlson (1979) has calculated that such a great concentration of Saharan dust will render the upper atmosphere to heat up at a rate of 1°C/day. Consequently, the meridional temperature gradient will be increased and the Inter-tropical Convergence Zone will thus move further southward, i.e. shifting of the tropical rain-belts. As such, the persistence of the drought conditions in those desert areas is thus understandable.

The preceding paragraphs have illustrated that by evaluating the effects of man's alterations on the energy balance of the desert region, the persistence of aridity over these areas can be clearly explained. Similarly, features and processes of all the other climatic systems of various landscapes, such as the tropical rain forest and the temperate grassland, can be easily studied using such an approach. One recent book by Lockwood (1985) has adopted such a theme. The values of using the heat or energy balance approach do not confine only to the succint explanation, if not accurate prediction, of the working of the climatic system and the man-climate interactions, but also to the realization of the significant contributions that geographers are purported to offer. The latter point has been well argued by Terjung (1966). Such a type of geographical education can enable the students to become more aware of the interdependence and interrelationships in the reality. They can realize that man, though now occupies the centre of the man-environment system, is an inseparated part of the system. Any man-made activities or alterations on the system may thus result in various extent of changes, which may be good or bad. In other words, students should

recognize that the nature or magnitude of the changes is a result of man's decisions and activities. All such knowledge are prerequisites for making rational and practical solutions for man-environemnt problems.

III. Prerequisites for the Approach

In an article entitled "Climatology: Challenge for the Eighties" by Mather et al. (1980), the discipline has been re-defined as the systematic investigation of heat, water and momentum that occur at the earth's surface. Moreover, they urge that climatologists must increase their understanding of the synergistic relationships between climatic processes, surface features and human actions. It has already been illustrated in the preceding section that an energy or heat balance approach is deemed to be well-fitted to the subject content and the student's understanding of the subject can be greatly increased. However, to adopt auch an approach in climatology, both the teachers and students should firstly not look upon the subject as obstacles to be avoided. The subject contents are not less interesting and exciting than other sub-fields of geography, particularly human geography subjects. Furthermore, the great demand for knowledge on the physical sciences does not necessarily imply that the field is quite difficult to comprehend by the Arts students. Additionally, the subject has an inherent interest on man-climate interrelationships, climatology should have much immediate relevance to the discipline of geogeraphy.

Secondly, as climatology is in fact a phsyical science and a multidisciplinary subject, basic knowledge on various physical sciences or related subjects, for instance, physics, are fundamental to an understanding of the subject matters. Without such knowledge, many climatic processes, phenomena and man-climate interactions can hardly be explained. Orme (1980) has urged the prospective physical geography students not to be frightened by the rigours of the physical sciences. They must be willing to learn the methods of these sciences, which are indispensable to our understanding of the climatic system. The assumption that one can enter physical geography while avoids the physical sciences is no longer valid. There is no escape from the physical sciences.

Thirdly, an understanding of mathematics and statistics is also prerequisite for the subject. Unlike many human phenomena studeied by geographers, most physical phenomena are amenable to direct observations and can be quantitified. This is particularly the case for climatology. Given the technical and staff support, routinely measured meteorological data can be made available on a shorter time basis, say 5-minutes or 10-minutes. As such, the enormity of the data base is not unexpected. However, we cannot take measurements on the assumption that the data will explain themself. In other words, the amount of rainfall recorded yesterday cannot tell you anything about the weather or

climate. Numerical or statistical technqiues are, therefore, highly essential to the analysis of data to search for meanings and explanations. Besides, the modelling technqiue has been widely used by climatologists in many recent climatic inquiries. As pointed out by Mather et al. (1980), a climatic model is aimed at developing a system of quantitative expression that characterizes the forms and processes that define the climatic environment. Henceforth, numeracy has always been a necessary and integral part of physical geography, especially of climatology (Orme, 1980).

Lastly, but nevertheless, it nust be emphasized that geography is a discipline concerning mainly with the man-environment interrelationships. One main contribution the discipline can make is to provide solutions to various problems arising from man-environment interactions. Undoubtedly, man is now become the centre of the man-environment system, his activities and influences have sometimes overriden the influences of the physical environment (Johnston, 1983). However, it is not true to state that studies of the man's socio-cultural environment are thus more important than that of the physical environment. Anyway, students should also be thoroughly trained in human geography subjects and he should do his best to integrate the physical and human components of geography.

IV. Concluding Remark

The implication of this paper is that physical geography teachers and students should be trained rather differently than in the past. They should be trained more thoroughly in both the main discipline and various cognate subjects. For climatology, they should have basic knowledge on mathematics (including calculus), physics, chemistry, biology and computer programming. However, the existing education system of Hong Kong and the traditional reductionist approach in the academic field have much prohibited the development of such an ideal mode of training in climatology. Students are not only having no extra time to delve into the physical sciences, but also they cannot realize the need of such efforts. To adopt the energy balance approach in climatology, which has been demonstrated to be valuable in the present work, students must employ more effectively the knowledge and techniques of both physical and social sciences. We are on the threshold of a climatology that can and will contribute to the solution of a wide range of human problems (Mather et al., 1980).

End-Notes

1. It is not the intention of this paper to speak for the revised Advanced Level Geography syllabus.
2. These reasons for the dislike of phyiscal geography had been collected during interviews with those matriculated

students applying for admissions into the College.

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ARTICLE

A Preliminary Analysis of the 1986 By-Census: I. Population Distribution Over Space by Age

by

Li Si Ming
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I. Introduction

The Hong Kong Government is finishing up its works on the 1986 by-census. A number of publications based on tabulations of census data have been issued, including the summary report, tabulations by district boards and tabulations by tertiary planning units. These tabulations are of utmost importance not only to the geographer, the demographer and other social scientists but also to the government officials, politicians and citizen groups who are very much engaged in local politics. Because of this, in this and subsequent issues the Hong Kong Geographer will carry out preliminary analyses of the census materials, hoping to provide the practising teacher and others
a clearer picture of how the population distribute over space and discern any trends that have emerged over the 5-year period, ie. from 1981 to 1986. The focus of this issue is on the age distribution of the population over space.

II. The Findings

The population of Hong Kong in 1986 was still quite young, with the median age standing at 28.67 years. Yet there are signs that the population is ageing. The median age recorded for 1981 was only 26.18 years. Furthermore, the share of population aged 65 or older increased from 6.58% to 7.56%; and that aged 14 or younger decreased from 24.69% to 23.07% over the period 1981-1986. As one may expect, these changes are not even over space. Tables 1 and 2 give a summary account of how the population distribute over space by age in both 1981 and 1986. A more detailed description of the age distribution of the population in the latter year is provided in Figures 1 and 2. The data clearly shows that in both years there was a concentration of the aged in the inner city areas particularly the urban core. In comparison, there were relatively few old people living in the newtowns particularly those of more recent vintage. For instance, 10.57% of the population in Central and 10.60% of that in Sheung Wan in 1986 were 65 years of age or older. On the other hand, only 3.96% of the population of Tuen Mun Newtown and 5.40% of that of Shatin Newtown in 1986 were of 65 years of age or more. The spatial distribution of the very young was almost a kernal of that of the very old. Instead of concentrating in the inner city core, children of 14 years of age or

younger tend to concentrate in the newtowns; the older parts of the city have relatively few young people. To illustrate, some 37.70% of Tuen Mun Newtown's and 31.05% of Taipo Newtown's population were 14 or smaller. Such a pattern of population distribution over space was not a recent phenomenon but was evident also from the 1981 census. Population movements in the past five years only made this trend more apparent.

TABLE 1 % POPULATION AGED 0-14

	1981	1986	Change
Urban Core	20.57	18.57	-2.00
Other Inner City Areas	24.04	20.81	-3.23
New Towns	30.34	28.73	-1.61
Other New Territories	24.01	24.01	0.00
All Land Areas	24.69	23.07	-1.62

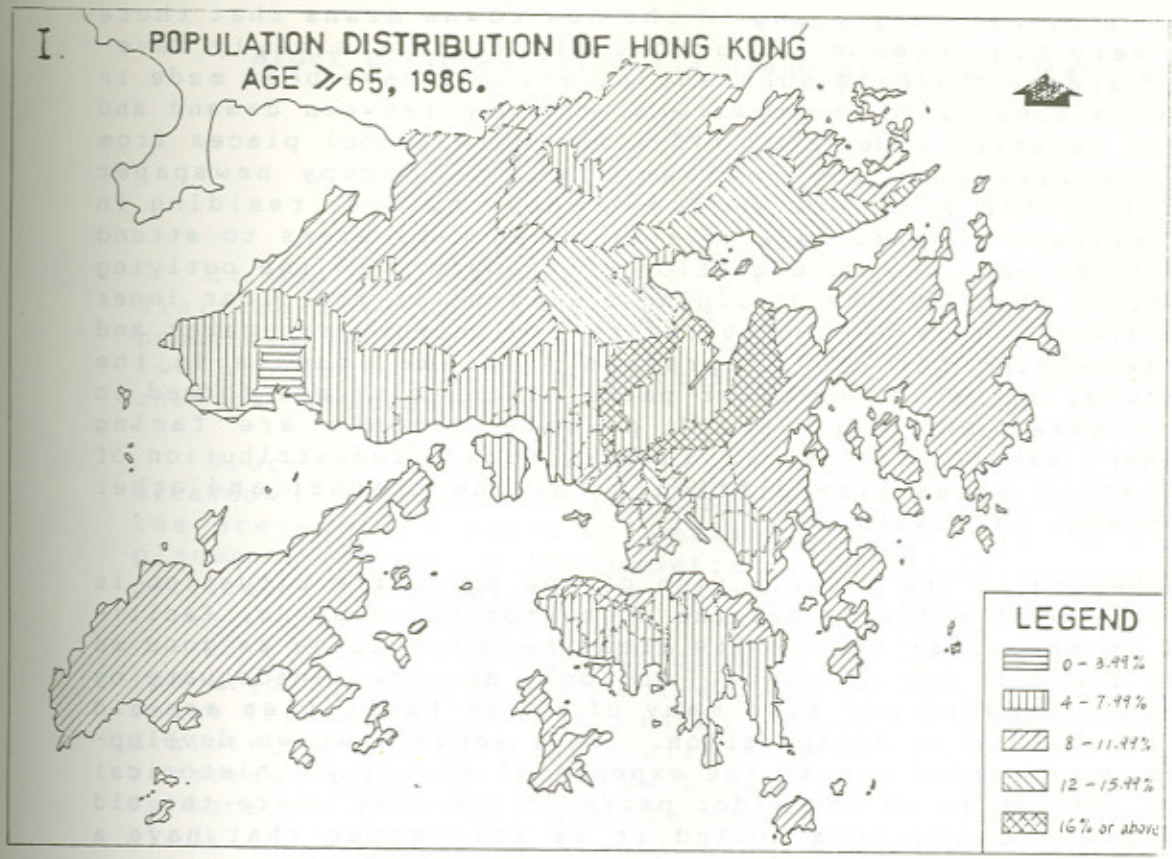
Note: "Urban Core" refers to the following census district. Central, Sheung Wan, Wanchai, Tsim Sha Tsui, Yau Ma Tei, Mong Kok, Sham Shui Po and Shek Kip Mei. The rest of Hong Kong Island, Kowloon and New Kowloon are referred to as "Other Inner City Areas".

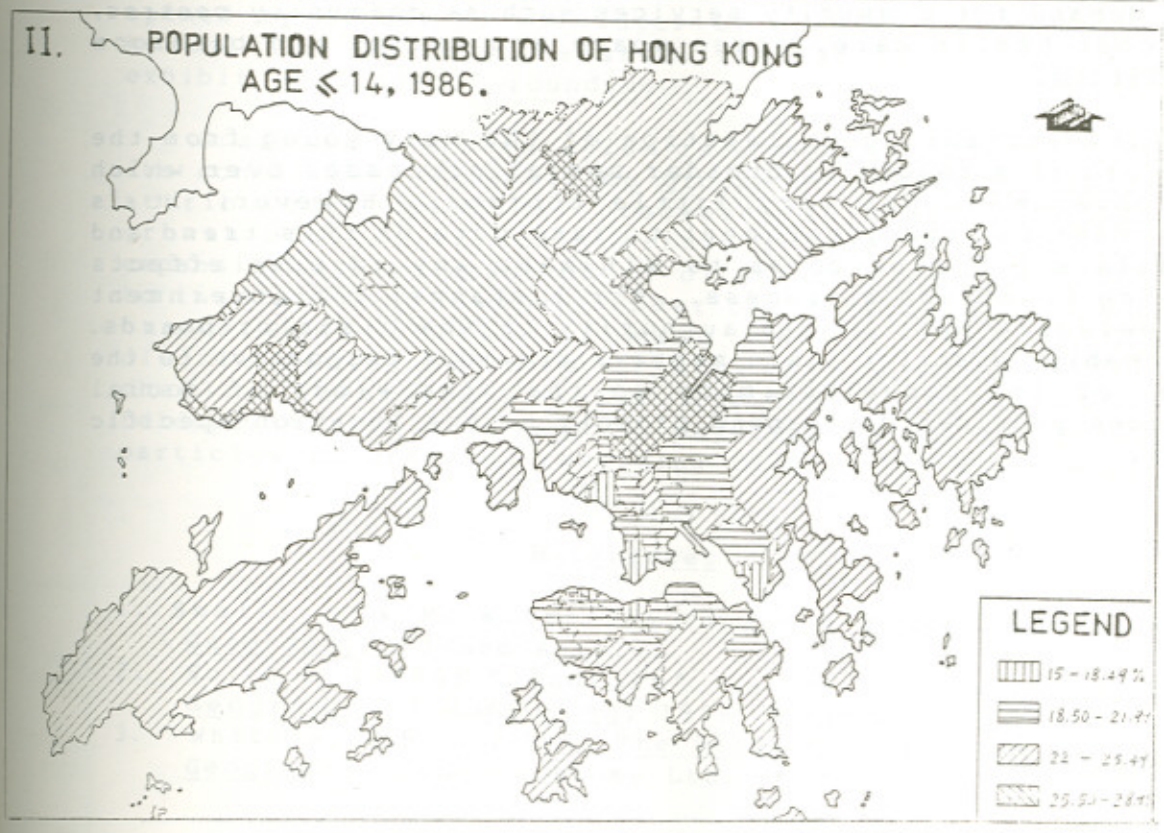
TABLE 2 % POPULATIUON AGED 65 OR OVER

	1981	1986	Change
Urban Core	8.14	10.02	+1.88
Other Inner City Areas	6.45	7.89	+1.44
New Towns	4.78	5.65	+0.87
Other New Territories	6.08	8.31	+2.23
All Land Areas	6.58	7.56	+0.98

II. Discussion

The increasing segregation of population over space in terms of age has obvious implications for the way urban social services are provided. First, the very high concen-


I. POPULATION DISTRIBUTION OF HONG KONG
AGE ≥ 65, 1986.
LEGEND
0 - 3.99%
4 - 7.99%
8 - 11.99%
12 - 15.99%
16% or above


II. POPULATION DISTRIBUTION OF HONG KONG
AGE ≤ 14, 1986.
LEGEND
15 - 18.49%
18.50 - 21.99%
22 - 25.49%
25.50 - 28.99%

tration of the very young in the new towns means that there is a very high demand for school places in the newly developed areas. Despite substantial efforts have been made in building schools in the newtowns, the gap between demand and supply is still wide. Petitions for more school places from parents living in the newtowns tend to occupy newspaper columns. And it is not uncommon that children residing in the newtowns commute back to the innner city areas to attend school. Second, the outmigration of the young to the outlying districts also implies declining enrolment in the older inner city areas. This is aggravated by declining birth rates and the levelling off of immigration. Unlike schools in the newtowns, those in the older parts of the city are forced to cut classes and many small private schools are facing imminent danger of closure. Clearly such a redistribution of population makes life difficult for the planner and other government officials.

Regarding the distribution of the aged, the situation is not very much better. Because of historical reasons, facilities in the older inner city areas tend not to be as good as those found in the newtowns. Not only are they inadequate by today's standard but also many of these facilities are old and in a state of dilapidation. In a sense newtown developments are carried out at the expense of the city's historical core. Yet it is in the older parts of the city where the old people are concengtrated.And it is this group that have a high demand for community services such as community centres, low cost health care, green space and toilet and bathroom facilities.

The increasing segregation of the very young from the very old is a result of broader social processes over which the government has very little control. However, it is important for the government to take note of this trend and formulate policies so as to minimize any adverse effects arising from such a process. For instance, the government may delegate part of its authority to the district boards. Presumably, district board members are more responsive to the needs of its constitutemncy so that the kinds of social services provided correspond closely to the location-specific needs.

Block Disintegration and Granular Disintegration

by

To Ka Yan, T.W.G. Hs. Chang Ming Thien College

It is often mentioned in many textbooks that block disintegration and granular disintegration are geomorphic processes related to physical weathering. In reality, these two processes could be attributable to both physical and chemical weathering.

Block disintegration is a term used to describe the breakdown of rocks into large blocks. The process depends on the presence of lines of weakness like joints or bedding planes which allow the penetration of weathering agents, particularly rainwater, meltwater and weak acids.

In temperate and polar climates or in high mountains, ice crystal growth due to freeze-thaw action is the chief cause leading th block disintegration. In Hong Kong, block disintegration due to the effect of temperature changes is reported to be seen in a few localities. (So, 1983) Yet, it is more probable that granite masses in Hong Kong which show block disintegration result from lines of weakness being opened by acidified rainwater by chemical proceess shuch as hydrolsis. In this instance, the resulting blocks usually exhibit evidence of rounding.

Granular disintegration is the breakdown of a rock into its constituent minerals or groups of minerals. It is often attributed to physical processes such as freezing or the growth of salt crystals within pores, or by differential expansion and contraction of different coloured minerals due to insolation. However, under the influence of the hot and humid subtropical climate of Hong Kong, granular disintegration is more likely to result from selective chemical weathering. For instance, the hydrolysis of feldspar minerals in granite may lead to the dislodgement of particles in granite, resulting in granular disintegration.

References

1. Small, J. & M. Witherick (1986) A Modern Dictionary of Geography, Edward Arnold.
2. So, C.L. (1986) "Landform", in T.N. Chiu & C.L. So eds, A Geography of Hong Kong, 1986, O.U.P., pp. 34-68.
3. Whittow, J.B.C. (1984) The Penguin Dictionary of Physical Geography, Penguin Books Ltd.

TEACHING PLAN

中學二年級地理科單元教案

許遠基

單元課題：澳洲農業

總教學目標及主要教學內容和方法

1. 使學生掌握人和環境之間的相互關係，尤其人的決策如何影响環境。
2. 使學生能閱讀及使用各種氣候圖表。

上課日期：11月7日至11月14日（共3節，每節40分鐘）

學生資料：人數 31 （男 13 女 18）

家庭背景：一般中下階層，大多數居於屯門。

教學條件：環境 課室

設備 高影機、掛圖及圖片

其他 學校採流動班制、轉堂時課室外頗嘈吵。

教學材料：

1. 課本
2. 地圖集
3. 作業紙 （Work sheet）
4. 作業簿 （Work book）
5. 高影片
6. 掛圖

教節	課題	目標和內容	方法	教材	評鑑	備註
一.	澳洲畜牧：綿羊	1. 使學生瞭解溫帶草原氣候、土壤及自然植被之相互關係 2. 使學生能閱讀及使用各種氣候圖表. 3. 澳洲牧羊業的空間分佈及牧羊業對澳洲經濟的重要性. 4. 粗放農業的特徵.	發問、圖片講解 看高影片 課本 高影片＋討論 發問＋講解.	1. 高影片： (i) 溫帶草原氣候 (ii) 澳洲牧羊業分佈 (iii) 柏斯(Perth)氣候表 (iv) 粗放農業特徵 2. 課本 3. 澳洲掛圖 4. 課堂習作(Work-sheet)	回答問題 作業紙 作業簿	
二.	澳洲農業：小麥	1. 使學生能掌握氣候圖表及地圖的使用，並抽取資料以認識氣候和農業的關係. 2. 澳洲小麥之空間分佈與氣候和地形之關係. 3. 使學生瞭解人的決策與自然及社會經濟因素的相互關係 4. 使學生初步掌握簡單地理模式：投入－產出. 5. 比較及鞏固精耕和粗放的分別.	放高影片－重疊高影片使學生逐步抽取資料. 看地形圖及高影片 討論、高影片 討論＋比較	1. 高影片 2. 澳洲掛圖 3. 課本	回答問題 作業紙 作業簿	
三.	混合農業：小麥－綿羊	1. 使學生明白人文活動如何適應和利用自然及社會經濟環境 2. 以一個案使學生掌握混合農業的操作. 3. 使學生明白混合農業的優點 4. 使學生掌握各統計圖表的使用	討論及講解 圖解、高影片 討論及講解. 課本	1. 高影片 2. 課本	回答問題 作業簿.	當完成此一單元課題後，學生將有一個簡短測驗(筆試)以鞏固其所學及反映老師之教學效果.

單元課題 澳洲農業 （本單元共分 三 教節）

本教節課題 澳洲畜牧一綿羊 （屬本單元第 一 教節）

上課：日期 7-11-1985 （星期 四），時間 12:20 - 1:00 (下午)，地點 二樓十二室

學生資料（補充） 這是第六節，又是午飯前的一節，學生可能會感覺疲倦

教學條件（補充） 準備高影機及澳洲地勢掛圖

教學目標（簡述） 使學生能掌握畜牧(人文活動)和草原氣候等(自然環境)的相互關係

教學方法（簡述） 重疊高影片、發問、圖解及討論

教學材料（詳列） (一) 羊毛冷衫一件 (二) 澳洲氣候高影片一套 (T-1 至 T-4)
(三) 梅斯(Meth)氣候圖 (T-5) (四) 種作農業特徵 (T-6)
(五) 課堂筆記/作業一份 (六) 教科書及作業

學生作業安排 (一) 課堂作業 (二) 家課作業

課室及黑板設計：

Sheep Lands in Australia

I.) Conditions for the growing of Temperate Grassland

1. Climate:
   a) temperature - warm, around 15°C
   b) rainfall - moderate, 250 mm to 800 mm
2. Soil: fertile, well-drained
3. Relief: extensive, low-lying lowland

II.) Charcateristics of Extensive Farming

1. large farm size
2. little labour is employed
3. frequent use of machinery
4. low population density
5. high yield per farmer
6. low yield per hecatre

1. Screen (for Overhead project)
2. Hanging Map

(Vocab.)
temperate grassland
fertile
well-drained
machinery
population density
yield
hecatre

教學目標和內容	時間(分鐘)	教學活動		備註
		教師	學生	
教學步驟				
(一) 引起動機	5-6	高舉羊毛衣 問：主要材料為何 讀出羊毛衣上的標貼：(100% pure wool) 令學生翻開課本 P.21. 然後發問.	作答. 看圖及作答.	
(二) 提示(目標/內容) 1. 使學生瞭解溫帶草原氣候、土壤及自然植被之相互關係. 2. 澳洲牧羊業的空間分佈. 3. 使學生能閱讀及使用各種氣候圖表.	20-25	運用重疊的高影片(T-1至T-4)使學生知道澳洲氣候及雨量之分佈. 令學生指出重疊之高影片上之溫帶草原及綿羊業之分佈. 問：其它影響草原生長的因素. 補充及將學生之答案重點寫在黑板上. 使用澳洲柏斯之氣候圖表及發問. (T-5)	觀看高影片 步出黑板前指出其分佈. 作答：土壤 地形等. 作答：最高溫度、最低溫度等.	
4. 粗放農業的特徵		使用高影片. 講解及發問	作答.	
(三) 比較/聯想： 粗放與精耕農業的分別.	6-7	講解及比較	聽講.	
(四) 總括	5	派發作業紙(二頁) 令學生讀出其答案.	填寫作業紙 作答.	

F.2 Geography Worksheet Ch.4 Sheep in Australia

I) On the following map of Australia , fill in
i. the 10 C and 25 C isotherms (等溫線); and
ii. the 250mm and 800mm isohyets (等雨線)

in the suitable places.
Then shade the sheep rearing areas in yellow colour.

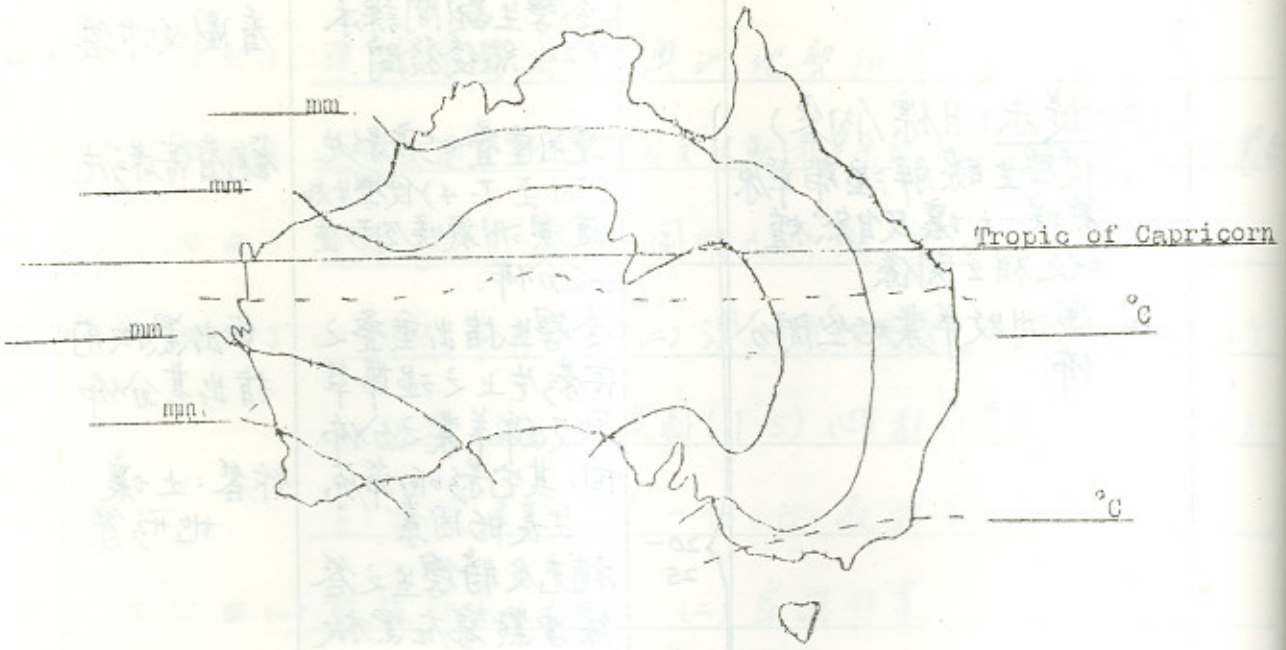


Fig.1 The distribution of sheep lands in Australia

II) Conditions for the growing of Temperate Grassland / Sheep rear

1. Climate
i. Temperate Grassland is found in temperate regions. A temperature of around _____ is most suitable for the grass to grow.
ii. Temperate Grassland requires a rainfall of _____ to _____ for its best growth. If rainfall is less than 250mm, _____ should be used.

2. Soil
Soil should be _____.

3. Relief
Since sheep rearing is a kind of extensive farming, an extensive , _____ relief is required.

III) Look at the climatic chart of Perth and answer the following questions.

1. What is the highest temperature of Perth ?

   _____.

2. What is the lowest temperature of Perth ?

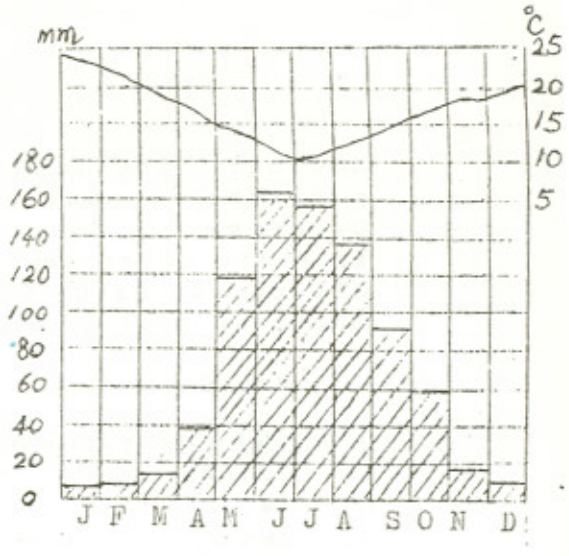
   _____.

3. What is the annual rainfall of Perth ?

   _____.

4. In which season does most of the rain come ?

   _____.



IV) A comparison of extensive farming and intensive farming

	Extensive farming	Intensive farming
1. Farm size		small
2. Labour employed		
3. Use of machinery		
4. Population density		
5. Yield per farmer	higher	
6. Output per hectare		more

INFORMATION

Editor: The following are Topographic & aSpecial Maps published by Survey and Mapping Unit, Buildings and Lands Department. All these publications are available on sale from the Governemnt Publications Centre or Survey and Mapping Office map Sales Centres. Except otherwise stated, all the maps are printed in dual (Chinese/English) language.

	Map Series		Latest edition/year
1.	HM200CL 1:200,000*		11 (1987)
2.	HM100CL 1:100,000		6 (1985)
3.	HM50CL, Sht 1 & 2, 1:50,000		6 (1984)
4.	HM50CP, Sht 1 & 2, 1:50,000		1 (1986)
5.	HM20C, Sht 1, 1:20,000		2 (1984)
	Sht 2		3 (1987)
	Sht 3		3 (1985)
	Sht 4		2 (1983)
	Sht 5		4 (1987)
	Sht 6		4 (1987)
	Sht 7		4 (1986)
	Sht 8		4 (1986)
	Sht 9		3 (1985)
	Sht 10		3 (1985)
	Sht 11		3 (1984)
	Sht 12		4 (1986)
	Sht 13		3 (1986)
	Sht 14		3 (1985)
	Sht 15		4 (1986)
	Sht 16		2 (1986)
6.	Hong Kong Official Guide Map		8 (1986)
7.	Countryside Series	Sht 1. HK Island	8a(1985)
		Sht 2. NT East	6 (1986)
		Sht 3 Lantau Is.	4 (1985)
		Sht 4. SE & CWB	3 (1986)
		Sht 5. NT NE	2 (1987)
8.	Geological Map 1:50,000+		1 (1977)
9.	Geological Map and Report+		1 (1971)
10.	Geological Map HGM20, 1:20,000	Sht 7	1 (1986)
		Sht 11	1 (1986)
		Sht 15	forthcoming
11.	HK Streets & Places	Vol 1, HK Is.	5 (1985)
		Vol 2, Kln & NT	3 (1983)
12.	End Maps for HK Annual Report		
	AR/1/LU Land Utilisation in HK*		2 (1982)
	AR/3/G Geological Map of HK*		1 (1979)
	AR/5/ET Hong Kong's EXternal Trade*		1 (1981)
	AR/6/P2 Population Map of HK*		1 (1982)
	AR/8/CM Hong Kong Climate*		1 (1984)
	AR/9/RD Reclamat'n & Develop't in HK*		1 (1985)
	AR/10/CT HK Communicat'n & Trade*		1a(1986)

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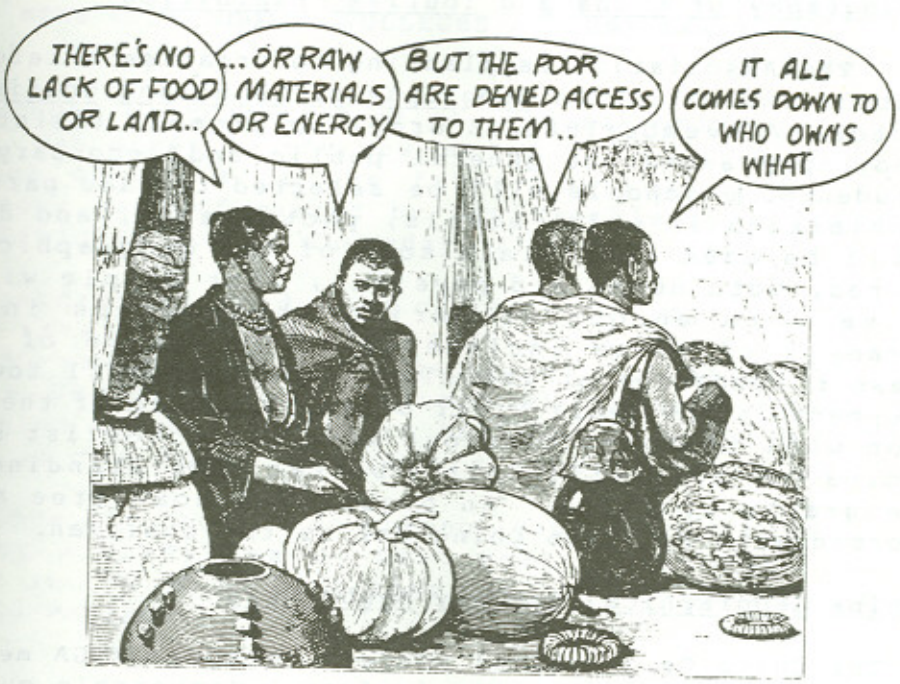
AR/11/BFW HK Buying from the world,
Jan - Dec. 1985* 1 (1987)

Note:

* - Printed in separate Chinese/English editions
+ - English version only



NEWS OF HONG KONG GEOGRAPHICAL ASSOCIATION

1) Secondary Education Sub-Committee

To strengthen the activities on secondary school geography education, a permanent Secondary Education Sub-Committee is formed to organise activities related to secondary geography teaching in Hong Kong. The Sub-Committee is chaired by Mr. Woo Sin Wai. Members of the Sub-Committee includes Chan Pui Kai, Albert Har, Jim Chi Yung, Lam Chi Chung, So Wai Hong, Yeung Chi Ling, and Yeung Pui Ming.

A series of activities have been planned for the academic year 1987-88:

a. Field trips to Mai Po Wildlife Conservation Education Centre and other areas in Hong Kong
b. Seminar of the Advanced Level Geography examination
c. Microcomputer workshop
d. Talks on recent developments in geography
e. Review of junior, certificate and advanced level geography curricula

2) "Geography of China and Tourism" Exhibition

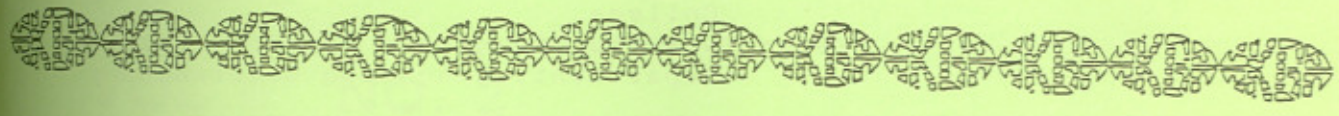
The Association is planning to organise a large scale public exhibition on Geography of China and Tourism in October/Novemberl988 in order to promote theinterestin geography among the general public and secondary school students. 10 schools will be selected to take part in the exhibition in which models, photographs, and diagrams will be used to explain some of the geographical features, both human and physical, that people will most likely to encounter during their tours in China. Example of these include Karst landscape of Guilin, desert landscape of the silk road, and small town development in the Pearl River Delta. Visitors of the exhibition will not only find out more about tourist spots of China but also will have a better understanding of the geography of China. An organizing committee has been formed with Mr. Yuen Ching Wai as the chairman.

3) China Geographical Society Membership

The China Geographical Society welcomes HKGA members to join them and the membership is free. Membership qualification is uninversity graduate majoring in geography with at least 5 years of teaching and/or research experience in secondary and post-secondary schools, and research institutes. Interested members please contact the Hon. Secretary for membership application forms. Two application forms are needed for membership application.

4) Education Section in South China Morning Post's Young Post

The Young Post of the South China Morning Post has a four page education section each day. It welcomes HKGA members to contribute articles on secondary school geography. Please contact Mr. Paul A.V. Keene of the Young Post (5-652222) if you are interested.



NEWS OF SCHOOLS, COLLEGES AND UNIVERSITIES

1. The School of Education of the Chinese University of Hong Kong has moved to the new Ho Tim Building which is just to the opposite of the former building. The opening ceremony was officiated by his Excellency the Governor, Sir David Wilson on Thursday, 21st May, 1987.

2. The geography graduates of the University of Hong Kong have attained very encouraging results this year. Of the 80 students majoring geography, 3 accomplish First Class Honour and 22 accomplish Second Class First Division Honour for their Bachelor of Arts (B.A) Degree. This is the most remarkable records in recent years.

3. Mr. Chow Siu Choi of Hong Kong Baptist College will be taking a study leave next year (1987-88) and will enrol in the Ph.D. programme at the University of Wisconsin-Madison.

NOTES TO CONTRIBUTORS

The Hong Kong Geographer is published on a quarterly basis by the Hong Kong Geograpghical Association. The journal welcomes full length articles, research notes, and comments and opinions on current development of Geography both in Hong Kong and abroad and the teaching of Geography at the secondary level. It also welcomes book reviews and field trip guides and publishes news of schools, colleges, universities and research institutes which may be of interest to Hong Kong's geographers. Articles may be written in English or Chinese. In the latter case, the editorial board reserves the right to ask the author to submit a typewritten copy or to bear the cost of typesetting. Very tight financial restraints render this necessary.

All articles are to be submitted to

Dr. Li Si Ming
Chief Editor, Hong Kong Geographer
c/o Department of Geography
Hong Kong Baptist College
224 Waterloo Road
Hong Kong