DOCUMENT RESUME

ED 340 644 SO 021 691

TITLE	Fulbright Hays Summer Seminar Abroad Program: Curriculum Projects, 1984.
INSTITUTION	National Committee on United States-China Relations, New York, N.Y.
SPONS AGENCY	Center for International Education (ED), Washington, DC.
PUB DATE	84
NOTE	81p.
PUB TYPE	Guides - Classroom Use - Teaching Guides (For Teacher) (052)
EDRS PRICE	MF01/PC04 Plus Postage.
DESCRIPTORS	*Agriculture; Area Studies; *Computer Simulation; Foreign Countries; Foreign Culture; Intermediate Grades; Junior High Schools; *Learning Activities; *Social Studies; Student Educational Objectives; Travel; Units of Study
IDENTIFIERS	*China

ABSTRACT

Three separate curriculum projects were developed to help secondary school educators to teach about the People's Republic of China. "How does China feed its one billion people?" (Susan Ember) is a lesson plan that seeks to make students aware of the dilemma of food supply and shortages in poor, underdeveloped countries. "The history, geography, and language of China," (Dennis D. Smith) provides middle school teachers with a resource guide for the delivery of an exploratory unit of China. "China Connection: A computer simulation game" (Patricia Wasley and Micki McKisson) presents a sample of each of the component parts of a computer simulation game designed to encourage higher level thinking skills and greater global understanding while teams of students engage in simulated travel through four cities in China via the computer. Sections from the teacher's travel guidebook, the student's travel guidebook, and from information contained in the computer are included in order to demonstrate how the game works. (DB)

1984 FULBRIGHT HAYS SUMMER SEMINARS ABROAD PROGRAM

Curriculum Projects

Compiled by the National Committee on U.S.-China Relations on behalf of the U.S Department of Education in fulfillment of Fulbright Hays Requirements.

Table of Contents

Susan Embser

Lesson Plan: How does China feed its one billion people?

Objectives: To demonstrate in several different ways how China deals with the monumental task of feeding its population of one billion, ten million.

To analyze statistics on population growth vs. agricultural production (with recent increases) to determine if China will be able to feed itself in the year 2000 when the estimated population will be 1.3 billion.

To make students aware of the dilemma of food supply and shortages in poor, underdeveloped countries.

To understand the change over from the communal system to the responsibility system.

To illustrate the variety and scope of foods consumed by the Chinese in various regional cuisines based on climatic and geographic locations.

Terms to understand

Communes
Responsibility system
Zero population growth
Incentives
Specialization
Free markets
Per capita
Malnutrition
Profit motive
Aquaculture

Methods: Group brainstorming sessions and communal group assignments

Maps, graphs and statistics analysis

Three day charting of eating and bathing habits, calorie intake and changes of clothes prior to assignment.

Three day voluntary diet - eating only ½ normal calories with no junk food or candy during the assignment.

Excerpts from The Broken Earth and other readings

Procedure: Group students into four communes - two from the South of China and two from the North. Divise names. Give the groups natural resource and climatic maps of China and other statistical information on future population estimates, population centers, imports, exports, and pre 1979 grain and rice harvests. Have the groups devise a Five Year Plan with a focus on expanding agricultural production. Their plan would include strategies on what to grow, production goals, approaches to increase production, work assignments and hours and collective decisions on farm machinery, irrigation ditches, fertiliters, livestock, wages, etc.

Have the Southern Groups trade their plans with the Northern groups. They will now become the Chinese government whose job it is to analyze the plans to see if food production will meet population demands. Have them make a list of criticisms and recommendations and assign the plan a grade.

Hoped for Results

Students may arrive at the same conclusion as the Chinese government under Deng Xiaoping - that more food has to be produced to keep up with the constantly growing population if malnutrition or starvation are to be averted. Also, if experimental, capitalistic incentives produce more food than previous methods, than it may become the necessary cpurse to follow.

After appraising students of record agricultural increases since 1979, (in part due to the responsibility system), have students evaluate and discuss China's capitalistic, agricultural tendencies to see if China will be able to meet the challenge of feeding itself.

List of additional readings - biblio?

Your idea but needs much more work in terms of student activities, readings, questions for discussion. Need a bibliography w/ list of general sources on China, supplementary teaching material (films, slides, organizations, etc.), student readings, etc.

Lesson Plan: How does China feed its one billion people?

Objectives: To demonstrate in several different ways how China deals with the monumental task of feeding its population of one billion, ten million.

To analyze statistics on population growth vs. agricultural production (with recent increases) to determine if China will be able to feed itself in the year 2000 when the estimated population will be 1.3 billion.

To make students aware of the dilemma of food supply and shortages in poor, underdeveloped countries.

To understand the change over from the communal system to the responsibility system.

To illustrate the variety and scope of foods consumed by the Chinese in various regional cuisines based on climatic and geographic locations.

Terms to understand

Communes
Responsibility system
Zero population growth
Incentives
Specialization
Free markets
Per capita
Malnutrition
Profit motive
Aquaculture

Methods

Group brainstorming sessions and communal group assignments

Maps, graphs and statistics analysis

Three day charting of eating and bathing habits, calorie intake and changes of clothes prior to assignment.

Three day voluntary diet - eating only ½ normal calories with no junk food or candy during the assignment.

Excerpts from The Broken Earth and other readings

Procedure

Group students into four communes - two from the South of China and two from the North. Divise names. Give the groups natural resource and climatic maps of China and other statistical information on future population estimates, population centers, imports, exports, and pre 1979 grain and rice harvests. Have the groups devise a Five Year Plan with a focus on expanding agricultural production. Their plan would include strategies on what to grow, production goals, approaches to increase production, work assignments and hours and collective decisions on farm machinery, irrigation ditches, fertiliters, livestock, wages, etc.

Have the Southern Groups trade their plans with the Northern groups. They will now become the Chinese government whose job it is to analyze the plans to see if food production will meet population demands. Have them make a list of criticisms and recommendations and assign the plan a grade.

Hoped for Results

Students may arrive at the same conclusion as the Chinese government under Deng Xiaoping - that more food has to be produced to keep up with the constantly growing population if malnutrition or starvation are to be averted. Also, if experimental, capitalistic incentives produce more food than previous methods, than it may become the necessary course to follow.

After appraising students of record agricultural increases since 1979, (in part due to the responsibility system), have students evaluate and discuss China's capitalistic, agricultural tendencies to see if China will be able to meet the challenge of feeding itself.

THE HISTORY, GEOGRAPHY AND LANGUAGE OF CHINA

An Interdisciplinary Unit
For Middle Grades Students

Presented to:

National Committee
on U.S./China Relations
New York, N.Y.

Denis D. Smith

RATIONALE

The purpose of this unit is to provide middle school teachers a resource guide for the delivery of an exploratory unit on China. By definition, exploratories are six to nine week excursions by teachers into topics that are of high interest to students, but which also are, in many cases, outside of a teacher's regular assignment area. For example, an exploratory class on Chinese culture, history, geography, and language could be taught to fifth or even eighth graders by a math teacher with no formal training in Chinese history or language. The only qualification for a math teacher (or other non-social science types) would be an eagerness to learn with the students as well as a commitment to provide exploration and enrichment for inquisitive learners.

Perhaps purists may be disturbed by this approach which encourages the idea of a teacher-as-generalist rather than waiting for the subject specialist to appear and build an in-house program for teaching about China. But that would not be a farsighted view. Rather, the purpose of this unit and the approach chosen to deliver it, have these goals as a basis of its design.

GOALS

1. To provide middle grades (5-8) students a chance to study with the class as well as independently the geography and history of China. (Most states require the teaching of world geography in grades six or seven). The material contained herein should encourage students to read more in-depth about China as well as promote a greater cultural awareness.

2. To provide middle grades students a chance to explore a second language that is not only relatively unknown in the USA but rarely taught at all in the public schools.

3. To provide, consistent with middle school philosophy, an interdisciplinary approach to teaching and learning, whereby teacher and student are enriched by the opportunity to teach - and learn - yet another academic

discipline. It is this type of approach, many believe, that guarantees a residual effect in those caught up with the teaching and learning.

4. To provide a compact resource guide and outline that will allow both teacher and student an opportunity to return to the topic of Chinese civilization for more in-depth study at a later date when both teacher and student might have matured by this or other intercultural study experiences.

THE LANGUAGE ELEMENT

Consistent with goal four listed above, the language element of this unit has limited goals, which are listed subsequently. However, the rationale for introducing a language experience in what would ordinarily be a history and geography unit is quite simple.

Linguistics experts have held for some time that there is no reliable indicator of future foreign language learning success. Research studies indicate that there is no single element - I.Q., English reading level, achievement in other academic subjects - which could be a good predictor of success in second language learning. But since the rationale of the approach is based on giving each student an early exposure (i.e., if taught at fifth or sixth grade) to foreigh language, this exploratory and interdisciplinary approach can provide an equal chance of success to all students.

These goals have been identified for the language element of the unit:

5. To provide an approach whereby students are comfortable in learning language for enrichment and enjoyment and not for fluency.

6. To provide a successful language experience for every student.

7. To improve listening skills in middle school students and thereby improve performance in language arts and other subject areas.

8. To provide a foundation or preparation for formal language study later in the school experience.

9. To promote cultural awareness.

An examination of traditional nine week exploratories (usually in French, German, Italian, and Spanish) meeting for forty-five class periods and dealing only with second language acquisition will usually find a unit of study approach. This method usually takes the following form:

1. Greetings
2. Numbers/Class Subjects
3. Family/Age
4. Going Places
5. Leisure Activities
6. Foods
7. Weather/Calendar
8. Parts of the Body
9. House
10. Clothing

Since this unit will consist of only twenty-seven meetings in half-hour periods, it can not be as comprehensive as the unit of study approach, where only one discipline - in this case language - is taught. The interdisciplinary method, in contrast, attempts to weave strands of history, geography, and language together. However, it should be noted that the unit of study approach is mentioned here as a basis for others to extract this language element approach and expand it into a separate academic class as a spinoff from this unit.

GETTING STARTED: DEVELOPING A FRAME OF REFERENCE

What are the largest countries in the world in terms of land mass? Of population?

COUNTRY	TOTAL AREA	POPULATION AND POPULATION DENSITY	CAPITAL CITY AND POPULATION
USSR	8,649,500 SQ. MI. (22,402,000 SQ. KM)	272,000,000 31 per SQ. MI. (12 per SQ. KM)	MOSCOW 7,831,000
CANADA	3,840,019 SQ. MI. (9,922,330 SQ. KM)	24,900,000 6 per SQ. MI. (3 per SQ. KM)	OTTAWA 304,500
CHINA	3,691,523 SQ. MI. (9,561,000 SQ. KM)	1,029,000,000 277 per SQ. MI. (107 per SQ. KM)	BEIJING 9,230,000
USA	3,618,770 SQ. MI. (9,372,614 SQ. KM)	234,200,000 65 per SQ. MI. (25 per SQ. KM)	WASHINGTON, D.C. 638,000

PROCEDURE

Ask the students to prepare a chart as shown above, listing country, area, population/density, and capital/population. Population figures will vary depending on the age or copyright year of the reference used.

1. Rank the four largest countries in terms of land mass. What are they, and how do they rank in terms of population? (Answer should be People's Republic of China, India, USSR, USA, and Indonesia).

2. Look at population density rates. What is the population density of Canada? How does that compare with the Chinese population density? Find the population density figure for India. How does that compare with the population density for China?

SUMMARY

Large countries like Canada may have a tiny population density, but China, smaller in area than Canada, has a population four times as dense as the USA, which is similar in size. But China's neighbor, India, has a population density which shows it has more than twice

as many people per square mile as the People's Republic of China. Develop this line of questioning to reach some conclusion on population density.

3. Japan, another Asian country, has a density of 818 persons per square mile while Bangladesh, a neighbor of India, has a density of 1,736 people - more than twice the rate of Japan. Does the level of population density have anything to do with the level of national or personal income? Why or why not?

(Note: To convert square miles into square kilometers, multiply be 2.58).

SUMMARY AND PROJECT

Students may want to explore more deeply into the subject of national income and population density. For example, Bangladesh, South Korea, Maldines (the Indian Ocean island chain), Singapore, and Taiwan are Asian countries whose population densities are all more than 1,000 people per square mile. South Korea, Singapore, and Taiwan are prosperous. What conclusions will the students reach as to this state of affairs? A panel discussion to air possible conflicting ideas might be appropriate.

PROCEDURE

Reference the following to a physical map of Asia or of China itself.

China is a country of vast dimensions. Measured in North American terms, it has a seacoast that would stretch from north of Newfoundland to south of Mexico City. Using a physical map, ask the students to locate these physical features of China.

a. Gobi Desert b. Mongolian Plateau c. Manchurian Plain Plain

After those areas are located, the following questions can be asked to process geographical information about China.

1. Unlike great American river systems which generally flow north to south, China's three great river systems generally flow west to east. Can you name these rivers?

2. The Yellow, Yangtze, and Pearl river basins not only are important for transportation, but they also form the basis for major population groupings. Where then, in general, are the major cities in China found? (Generally, in coastal areas, in the south, and in the valleys and deltas of the great rivers).

3. It is said that about 80% of Americans live in urban areas while 80% of Chinese live in the countryside. Knowing that the population of China is four times greater than the United States, use source books to find how many Chinese cities have more than one million population. Make the same comparison for American cities.

(Based on updated 1980 census figures, it appears that the United States has only six cities with a population greater than one million. China has at least fifteen in this category).

4. After you have located the Chinese cities with over one million inhabitants, use colored stickpins to locate them prominently on the map. Based on this observation, are large Chinese urban centers more proximately located to each other than those in the United States? What is the reason for this in your estimation?

CONCEPT

Students should become aware that national resources, their location, abundance, and accessibility for exploration are important for determining the size, scope, and quality of economic development. For example, the petroleum producing countries of the Persian Gulf are endowed with large recoverable reserves that are exploited at a low price. Yet these same countries are

dependent on a high level of imports, including basic food staples such as wheat, to sustain economic activity.

PROCEDURE

The following pages contain some mineral and agricultural data (Tables I - V) that should help students form some generalizations about economic activity in China. These tables provide good summaries, but other source books, including the Cambridge Encyclopedia, economic atlases, and other references may provide more comprehensive information.

Examine Table II, Mineral Data, for a moment. Can you make these generalizations from the data supplied?

1. Copper is an important metal for enhancing economic development. What does the graph tell you about China's standing in production or compared to the USA or the USSR?

2. This Table also shows figures for coal production. Look at the graph for coal compared to the one for iron ore just below it. What should these graphs together tell you? (Hint: Coal is used more for fuel in China rather than for production purposes).

3. Please look at Table I for a moment. In comparison to the USSR, Japan, USA and West Germany, what generalizations might be mentioned with regard to steel production?

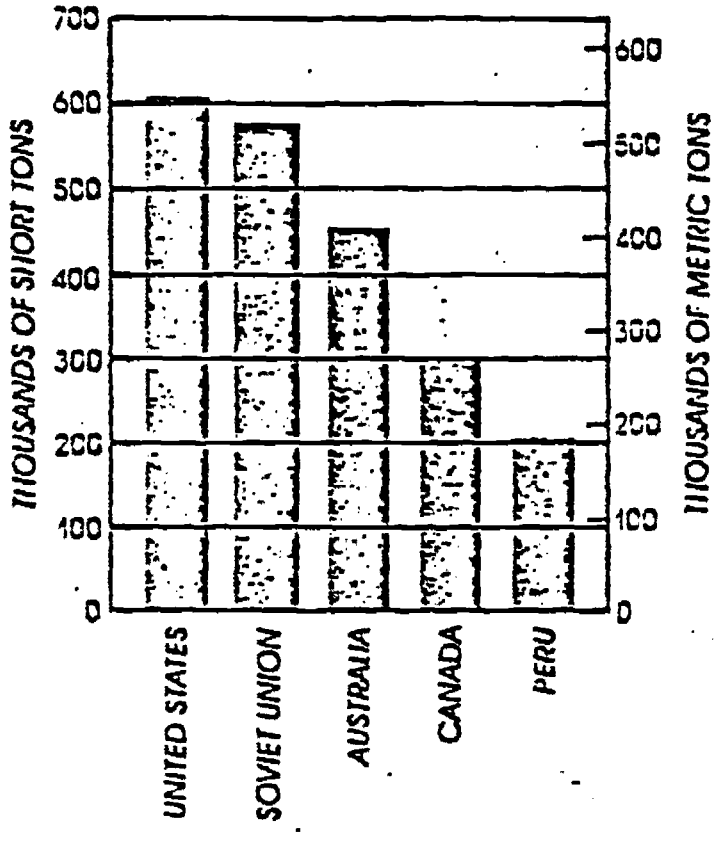
4. It has been said that the level of steel production in a country has been an indicator of both national wealth and power. If that is true, compare China's annual steel output in relation to its large population. What do the figures indicate to you?

5. Let's consider Table III on agriculture. China, of course, is the world's largest producer of rice and tea. But it also ranks high, along with India, in the production of tobacco. Have you any information about the high use of tobacco in third world countries like China or India? What problems do you see with high tobacco consumption and limited health services in third world countries?

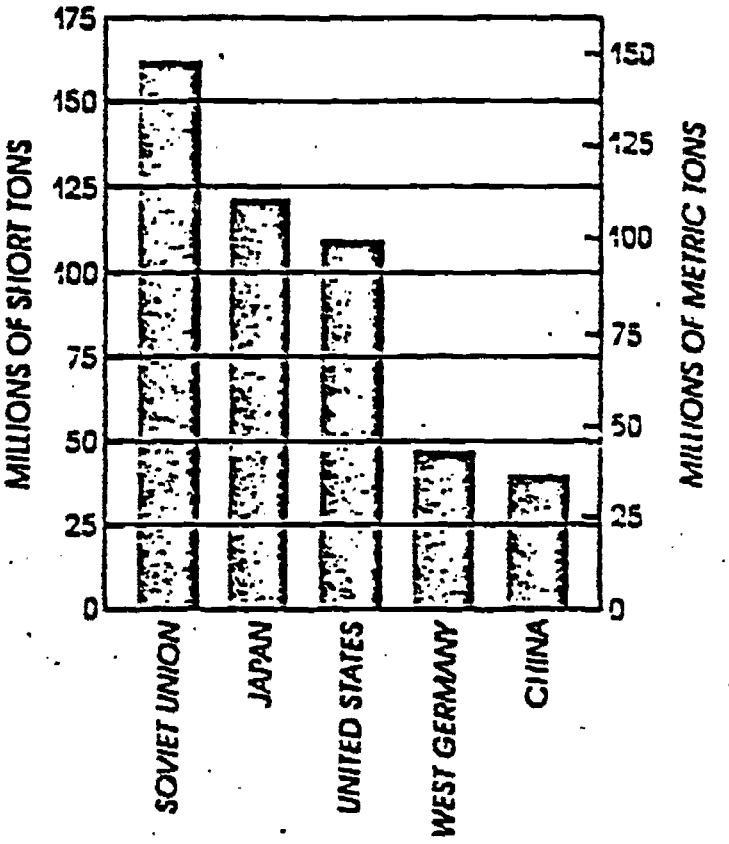
TABLE I

MINERAL DATA

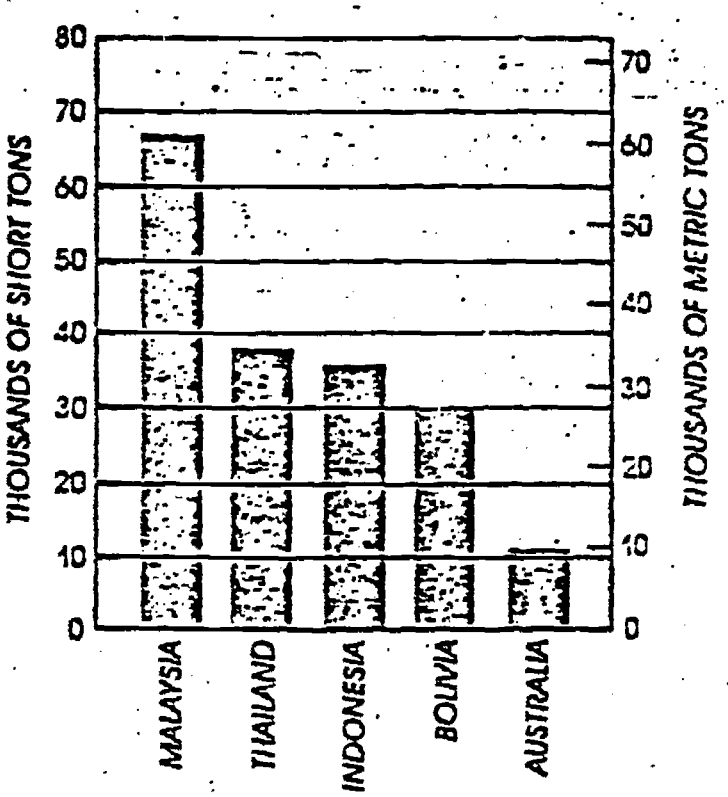
LEADING LEAD-PRODUCING COUNTRIES



LEADING STEEL-PRODUCING COUNTRIES



LEADING TIN-PRODUCING COUNTRIES



LEADING ZINC-PRODUCING COUNTRIES

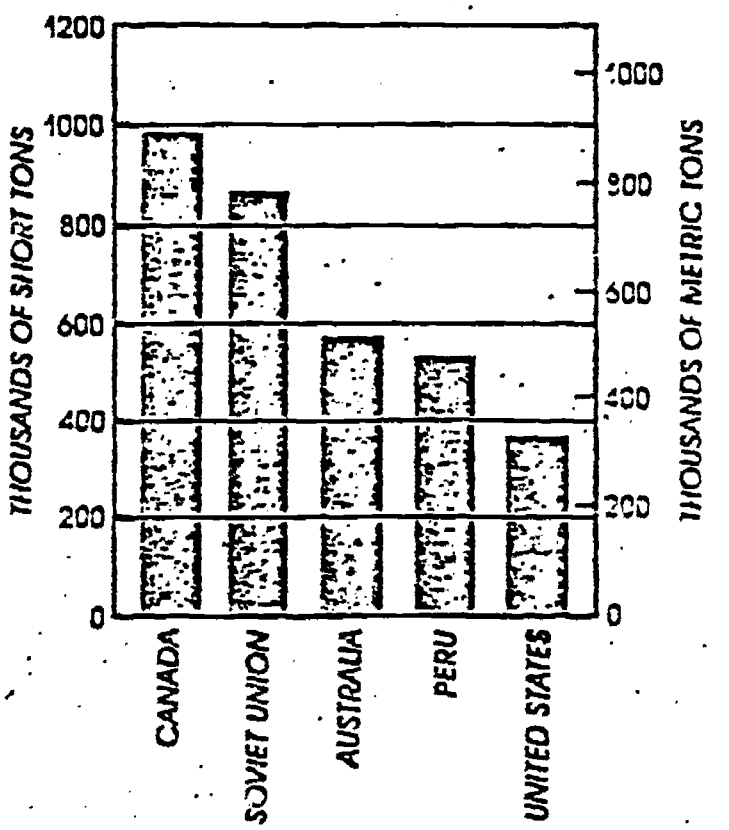
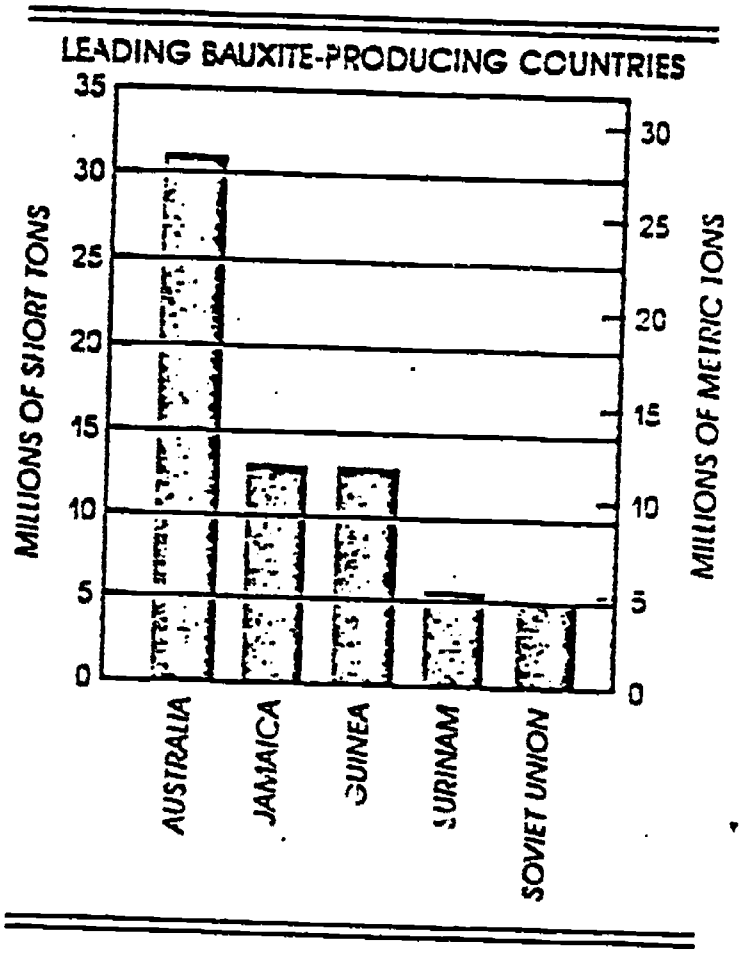
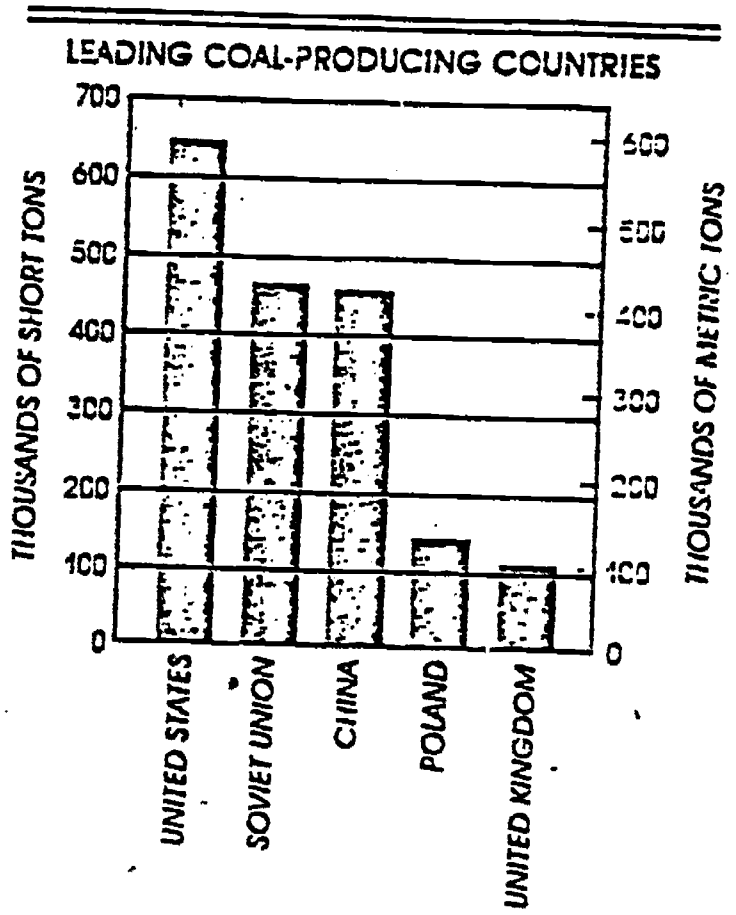
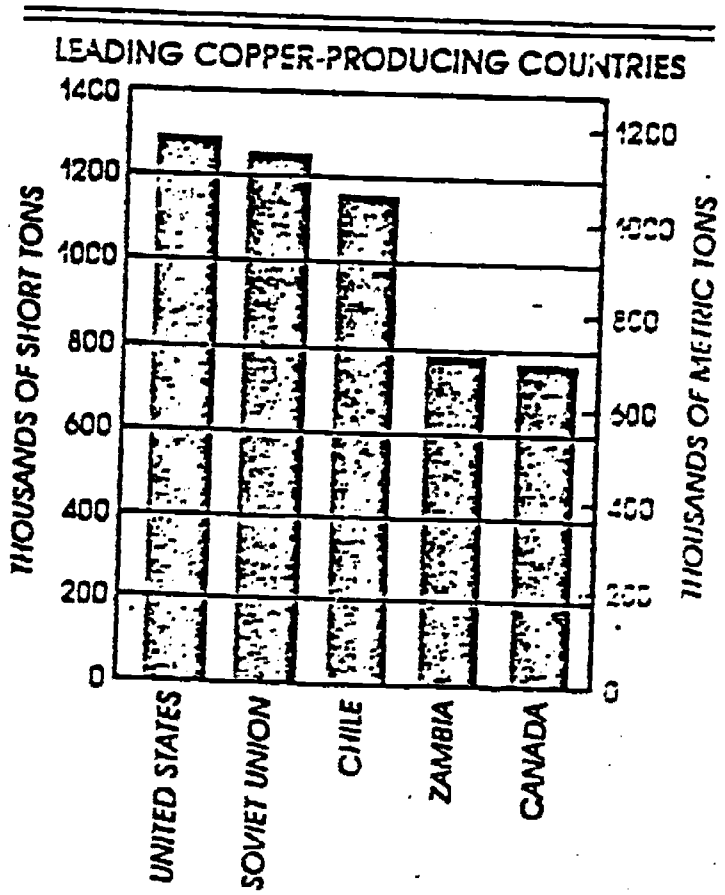


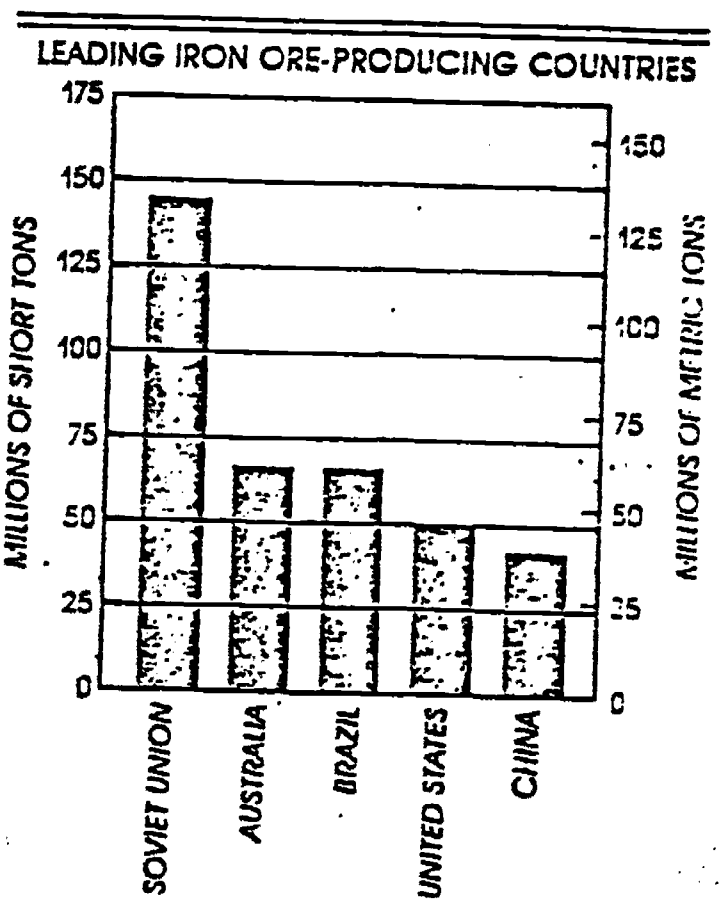
TABLE II

MINERAL DATA



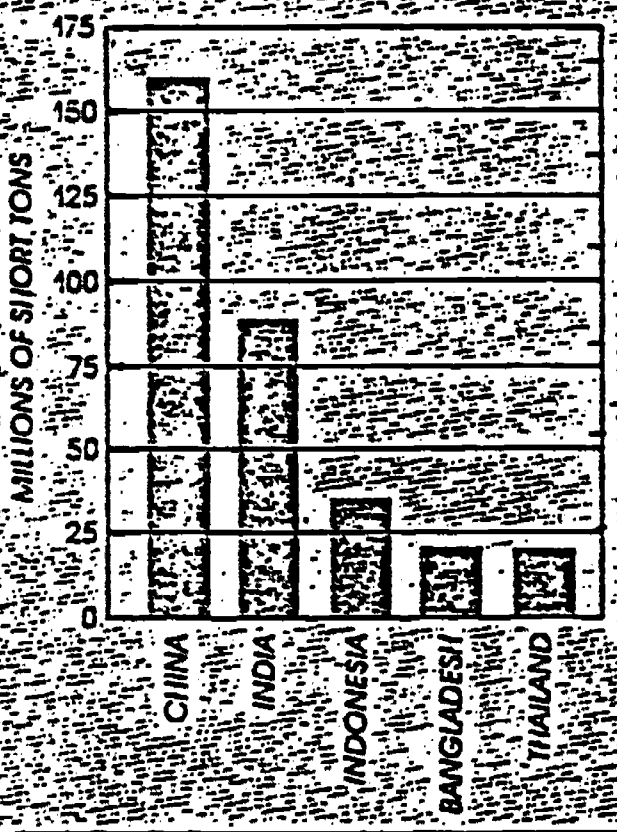






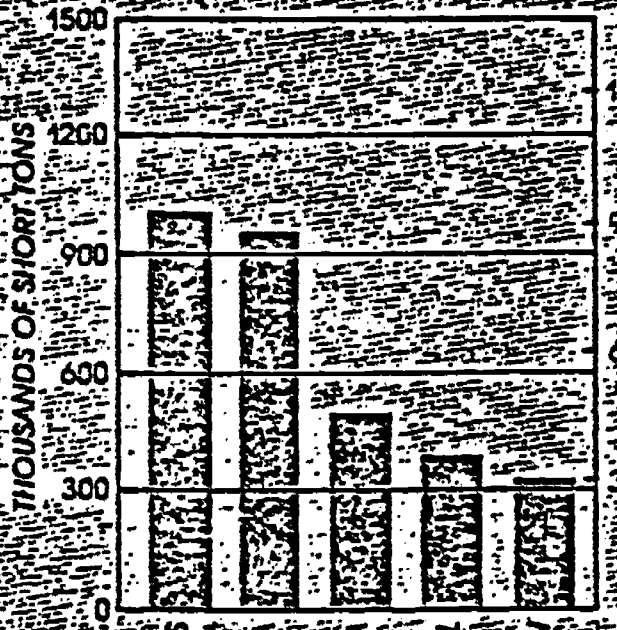
AGRICULTURAL DATA

LEADING RICE-PRODUCING COUNTRIES

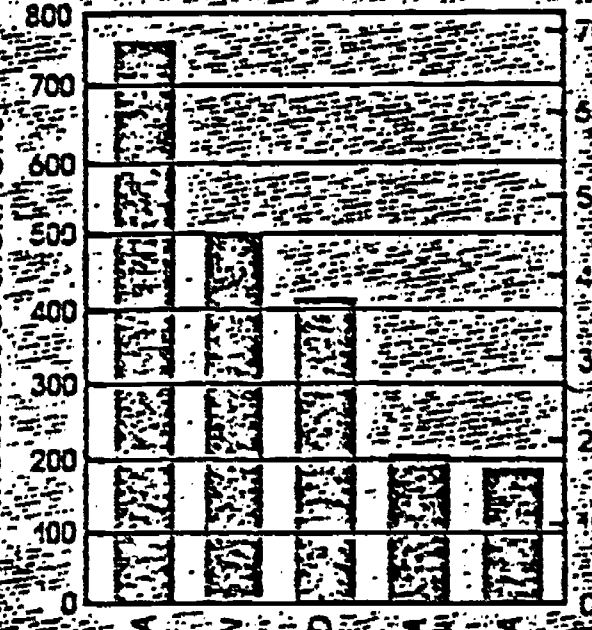


LEADING TEA-PRODUCING COUNTRIES

LEADING TOBACCO-PRODUCING COUNTRIES

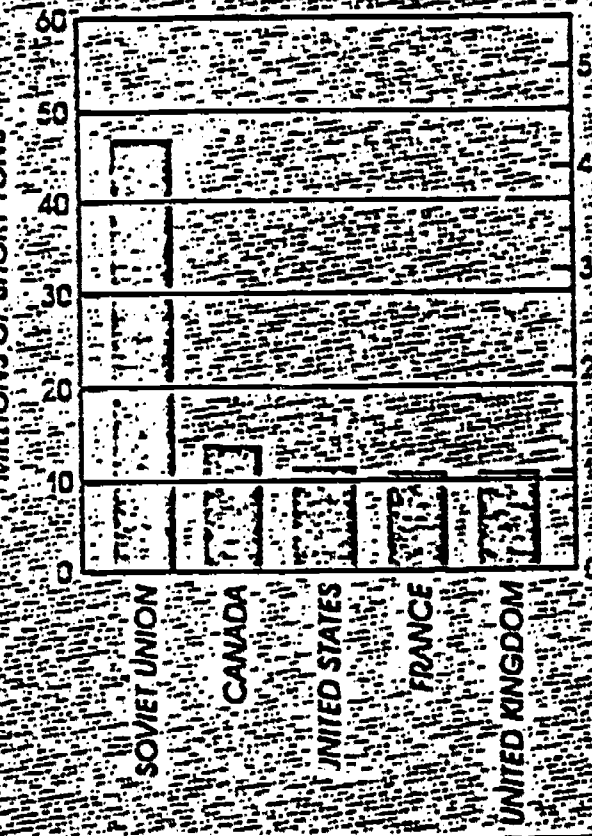


LEADING WOOL-PRODUCING COUNTRIES

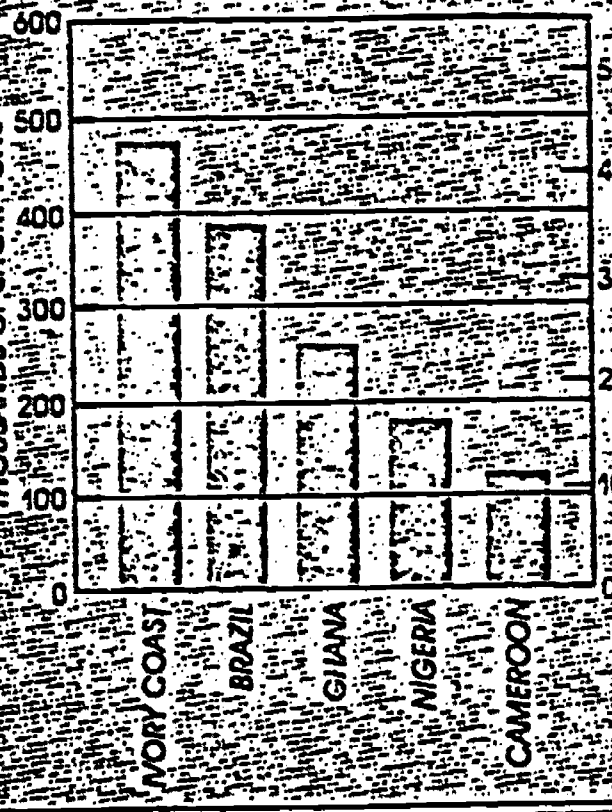


AGRICULTURAL DATA

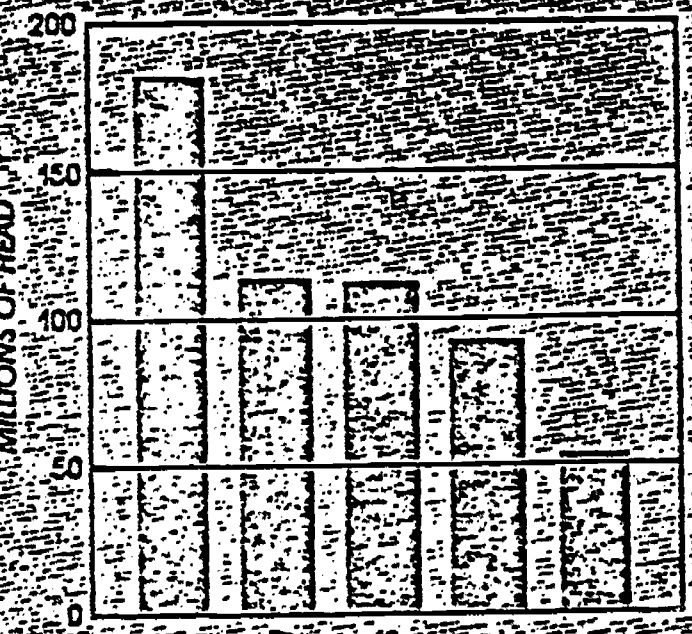
LEADING BARLEY-PRODUCING COUNTRIES



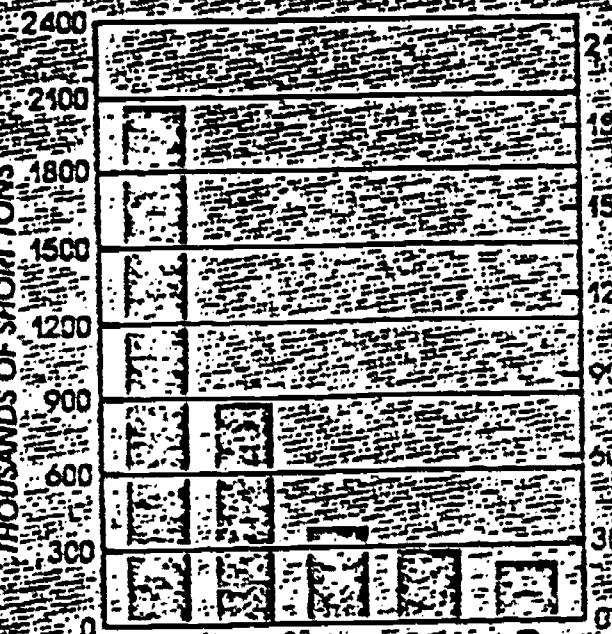
LEADING CACAO (COCOA) BEAN-PRODUCING COUNTRIES



LEADING CATTLE-PRODUCING COUNTRIES

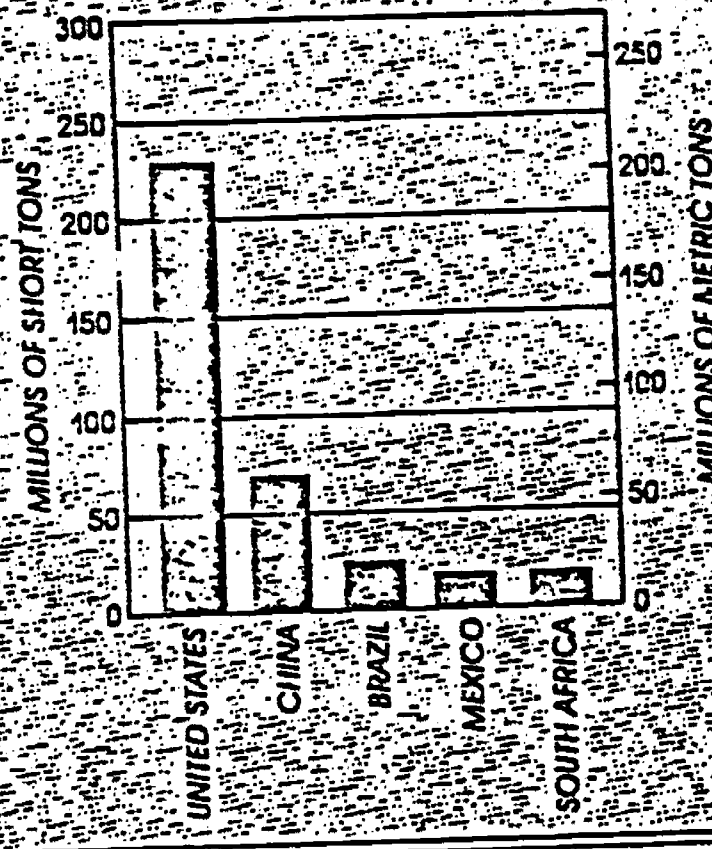


LEADING COFFEE-PRODUCING COUNTRIES

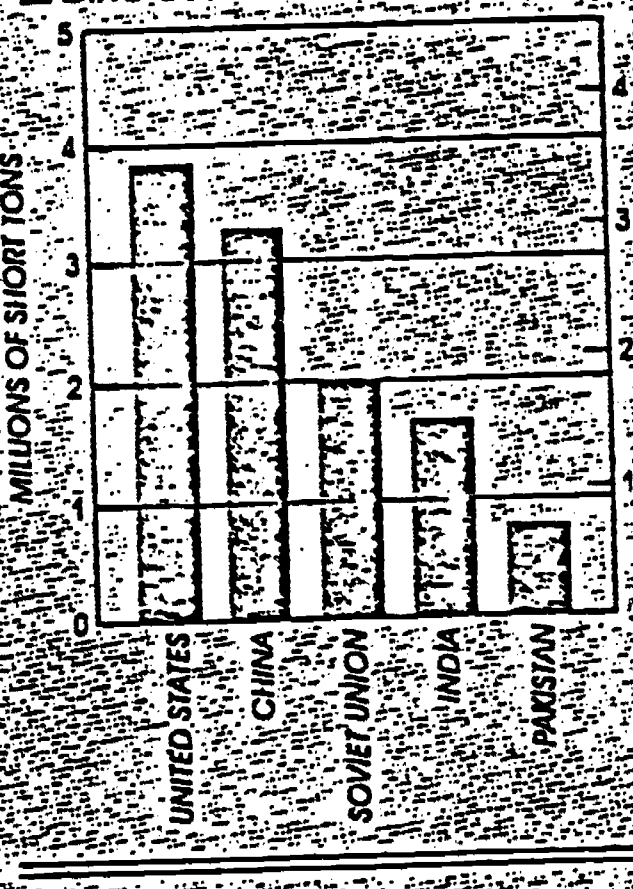


AGRICULTURAL DATA

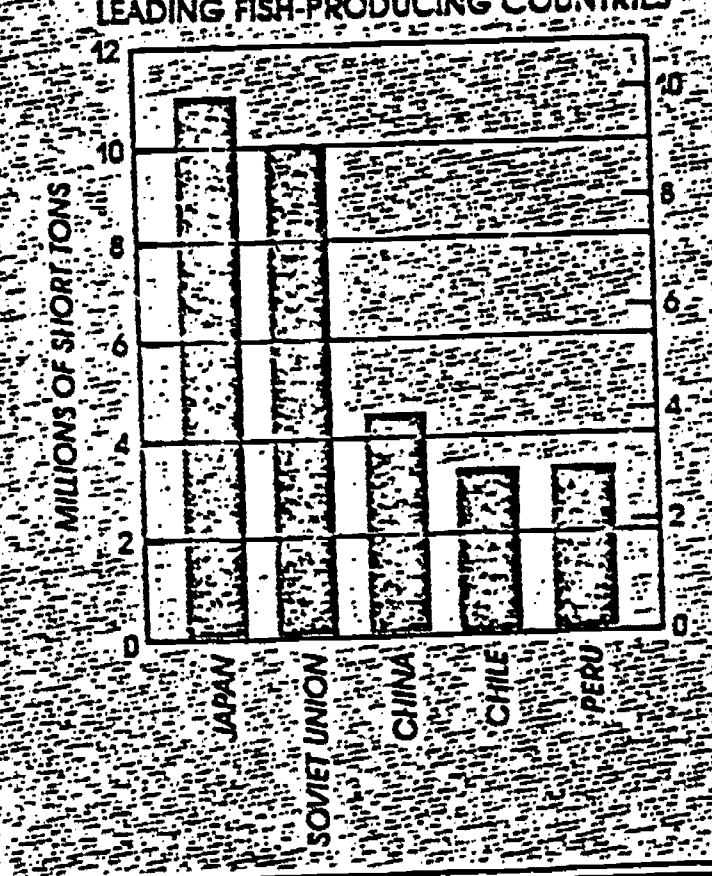
LEADING CORN-PRODUCING COUNTRIES



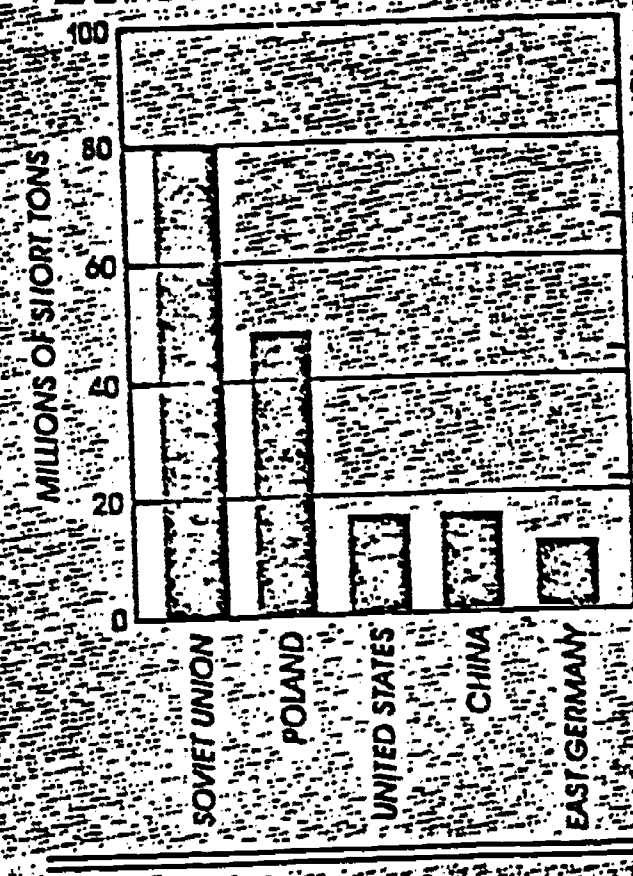
LEADING COTTON-PRODUCING COUNTRIES



LEADING FISH-PRODUCING COUNTRIES



LEADING POTATO-PRODUCING COUNTRIES

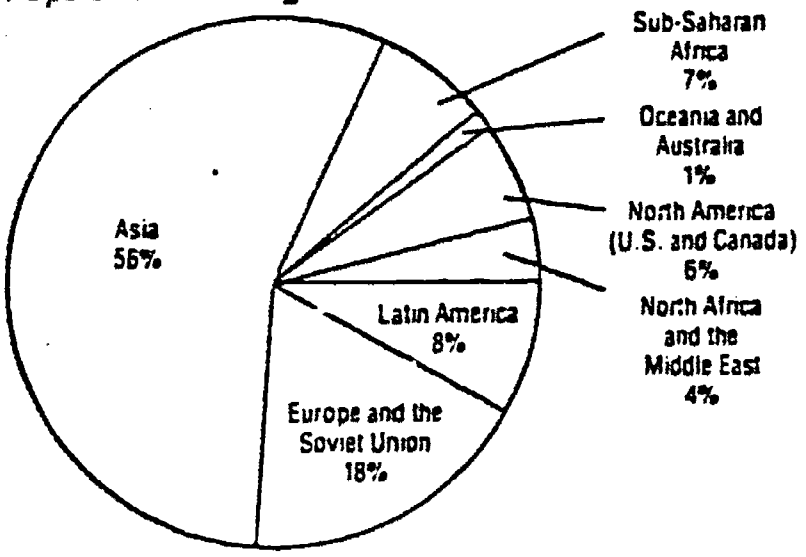


6. Examine Tables IV and V dealing with agriculture. What does all of the data tell you about the variety of Chinese agriculture?

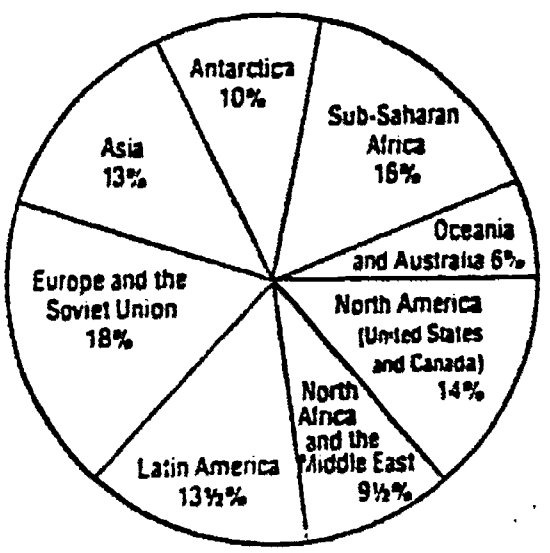
SUMMARY AND REVIEW

This section aptly titled "Getting Started: Developing a Frame of Reference," is designed to introduce younger students into thinking about China in geographic and economic terms. Students should be aware that the Chinese nation encompasses almost a fourth of all humanity in a land area only slightly larger than the United States. This simple comparison should help students conceptualize the many problems China will continue to face until population growth is successfully controlled. This pie graph will clearly illustrate the immensity of the problem. The population issue will be covered more in depth in the following section.

Populations for Regions of the World



Land Area for Regions of the World



A second outcome of this section on geography should be an understanding that China's population tends to be clustered along the coastal areas, river valleys, and deltas. The United States, by comparison, with a more developed transportation system

and a more favorable terrain, contains a population in a less clustered style.

There are several other outcomes that should be expected from this section. The idea of population density, for example, should be clearly understood. It is suggested that further student exploration of this topic be encouraged by examining comparative data for Western Europe, Central and South America. The results could be promising because of the potential for better understanding the differences between developed and developing countries, including the People's Republic of China.

A final outcome should be a better understanding of the relationship between resources, their exploitation and use, and industrial output. Tables I - V are included only as an example of how data can be collected and interpreted. Mathematics teachers can cooperate in this part of the unit by introducing (or reviewing) graphing skills so that students will be able not only to collect data but to interpret it for a better understanding of how natural resources are related to the economics of particular countries. The collection of data and how it is presented (viz., graphing) should be an important technique students can use as far as making applications of the social science and mathematical skills acquired in the school experience.

* * *

At this point, we will now turn our attention to an examination of the history of China as well as a discussion of some of the country's contemporary problems.

Perhaps our discussion could start with what some would call the origins of the country. China is a vast land that was formed from many competing domains. For example, if students have some background on the development of European nation states, they would find that many states have been created as the result of wars and revolution in the mid nineteenth century. Students should be aware that Italy was created as a result of conflict

which resulted in the emergence of a modern state under Garibaldi's leadership. The same forces were operative in the case of the emergence of modern Germany under the leadership of Bismarck. Unrest in Central Europe and wars with Austria and France created the modern German state. The process was completed in the aftermath of World War I when Poland reappeared on the map after a lapse of almost 125 years and the modern states of Czechoslovakia and Yugoslavia emerged from the remnants of the Austro-Hungarian Empire.

CONCEPT

China is rightly called the world's oldest civilization in terms of continuity. Unlike Europe, where nations have been created up until recent times, China as we know it was first united more than 2,200 years ago.

PROCEDURE

1. Assign student reading on the creation of the Great Wall. Explain that the wall as we now know it was a series of walls separating several states and used for protection from marauding tribes. The walls were then connected, after 221 B. C. by Qin Shi Huangdi, who then proceeded to unite seven domains (kingdoms) under his leadership.

2. Ask the students to research the dynastic system in China and produce a list that will incorporate the dynasties as well as their approximate dates. Start the list with the Qin Dynasty to correspond with the previous activity on the Great Wall. The student list should resemble the following:

Qin Dynasty	(221 - 207 B. C.)
Han Dynasty	(206 - 220 A. D.)
Three Kingdoms Period	(220 - 265 A. D.)
Jin Dynasty	(265 - 420 A. D.)
Northern and Southern Dynasties	(386 - 581 A. D.)
Sui Dynasty	(590 - 618 A. D.)

Tang Dynasty	(618 - 907 A. D.)
Five Dynasties	(907 - 960 A. D.)
Song Dynasty	(960 - 1279 A. D.)
Yuan Dynasty	(1271 - 1368 A. D.)
Ming Dynasty	(1386 - 1644 A. D.)
Qing Dynasty	(1644 - 1911 A. D.)

3. After the dynastic information found above has been compiled, some of the more ambitious students could be encouraged to produce a timeline so that information from it could be matched with seemingly better known information from western civilization. For example, these developments are suggested for placement on the timeline. Only the event itself should be listed by the teacher - the students' job should be to provide the match.

Roman Empire	(Han, Three Kingdoms and Jin)
Jesus Christ	(Han)
Mohammed	(Northern and Southern Dynasties)
Norman Conquest	(Song)
Christopher Columbus	(Ming)
European colonization of North America)	(Ming and Qing)
American Revolution	(Qing)
American Civil War	(Qing)

Obviously, the above examples constitute a minimum of what could be listed. They are, however, a key to a better understanding of the expanse of Chinese civilization dating back hundreds of years before the Christian era.

4. Since the end of the dynastic system at the beginning of this century, China experienced a period of instability which lasted up to the communist revolution of 1949. These names should be mentioned as worthy of biographical sketches for a fuller understanding of this period. After a sketch has been found for each, provide this matching quiz.

__ founder of the Kuomintang party and 'father of the nation'	A. Xi Ci
__ Qing Empress at the end of the dynastic period	B. Sun Yat sen
__ territorial rulers who administered the country in the absence of a central government	C. Warlords
__ 'father of the warlords' and would be emperor	D. Wu Pei fu
__ warlord and northern strongman	E. Chiang Kai shek
__ revolutionary and founder of the People's Republic	F. Kuomingtang
__ popular leader and revolutionary known for his diplomatic skills	G. Mao Zedong
__ nationalist and wartime leader forced into exile by the communist revolution	H. Zhou Enlai
__ name for the Chinese Nationalist Party	I. Yuan Shikai
__ term used to describe revolutionary movement that arose in China after World War I	J. May 4th Movement

5. In activity 3, a suggestion was made to produce a timeline so that the dynastic system of ancient China could be better understood. The same needs to be done to better understand the Republican Period from 1912 - 1949. The following items need to appear to promote a better understanding of this period. The overlap between many of these events should be emphasized.

Qing Dynasty ends
Warlord period
Kuomingtang leadership
Japanese invasion
Civil war
World War II
Evacuation to Taiwan
People's Republic of China proclaimed

6. In its present system, China as a nation is only 35 years old. Below are listed key terms and names that should be understood for the fullest meaning of what has developed in China in such a short time. Because of the contemporary nature of this material, references should be easy to find. However, the Oxford Encyclopedia and comparable works should be helpful.

October 1, 1949
Korean War
Great Leap Forward
Cultural Revolution
Gang of Four
Four Modernizations

SUMMARY AND REVIEW

No unit or part of same could ever claim to take more than two millenia of majestic civilization and distill it into a few major ideas and protagonists filling but a few pages. However, as was stated earlier, the unit is merely a resource provided teachers to promote a sense of exploration among middle grades students so that the basis for later in-depth inquiry is established. It was Herodotus, the father of historiography, who held that history was both the biography of great men and a chronicle of events. The method suggested here, therefore, is traditional in that respect.

It is expected that students in their study and reading of China's history will discover these facts and conclusions.

a. China is a vast domain comprised of many peoples, languages, and dialects.

b. Up until the eve of World War I, China was ruled under a dynastic system which provided a weak central government.

c. During the nineteenth and twentieth centuries, imperialist western nations capitalized on Chinese weakness and established colonies which further divided a weak nation.

d. A revolutionary movement arose after World War I partly as a reaction to the continuation of European imperialism.

e. Sun Yat sen and later Chiang Kai shek led the Kuomingtang, or nationalist party, which ruled the country for more than 20 years.

f. Prior to the rise of Chiang, the country lacked a central governmental administration; instead, warlords controlled different parts of the country and therefore supplied de-facto administration.

g. The Japanese, sensing a China still weak and divided, decided to invade in 1931 and take advantage of their military and technological superiority.

h. During the Japanese invasion, the country was also preoccupied with civil war between communist insurgents and the forces of Chiang Kai shek.

i. After the Japanese defeat in 1945, the civil war intensified until the communists were victorious.

j. In 1949, Mao Zedong proclaimed the establishment of the People's Republic of China while on Taiwan, an island province, the defeated Chiang Kai shek announced the creation of the Republic of China.

k. During the first 25 years of the PRC, Chairman Mao instituted sweeping policies for industrialization while at the same time encouraging revolutionary forces to keep the nation off balance. As a result, the country and all efforts toward modernization, educational advancement and technological improvement, were damaged to a great extent.

l. Since the death of Chairman Mao in 1976, the country's new leaders have stressed that progress

can only be achieved through political stability and an opening to the western world for assistance in modernizing the country.

* * *

The Chinese language in written form has developed over 3000 years and is still being modified today. Since it is not a language with an alphabetic system, characters have evolved to serve as representations for these ideas or concepts. These ideographs, then, serve as the chief cog in Chinese language mechanics.

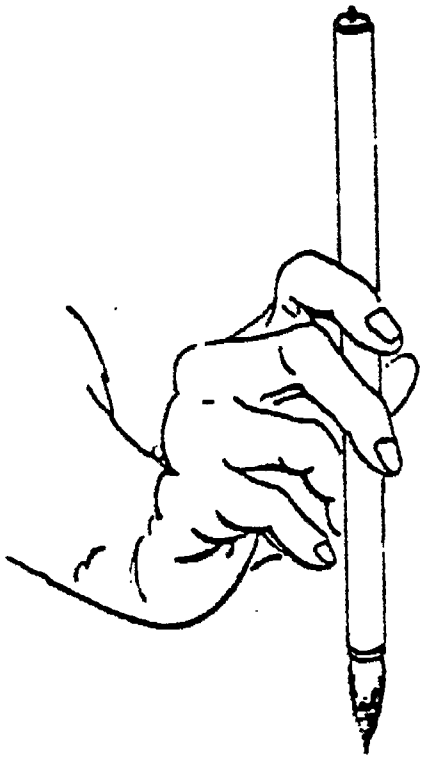
That's the (easy?) part of discussing or learning the Chinese language. Even though more than 2,000 commonly used characters have undergone some simplification since 1956, the written language is universally understood.

That is not the case with oral language. While pen pals from Beijing and Guangzhou might make great diarists of each other's thought, they probably might not understand each other over the telephone. Chinese dialects exist in part because of the non-alphabetic nature of the language. The government has been making progress in advancing the northern dialect with Beijing pronunciation as the standard of the spoken language. Thus, putonghua, or common speech, is the official or preferred oral language. The system for transliterating the sound into spelling is called pinyin. A guide for pinyin will be found later.

CONCEPT

The Chinese have considered calligraphy an art form and also an indicator of literacy.

Characters are formed from strokes. In this lesson on writing, students will be taught six basic strokes. (The art teacher may want to cooperate in teaching this section by supplying brushes and newsprint, or by even teaching the lesson). To consider the quality of handwriting as a desired art form in this society and therefore a characteristic defining a literate person would not be valid. And to us, handwriting is work rather than art. Perhaps improved student handwriting could be a long term transfer effect as a result of improved cultural awareness.



Start this activity by studying the basic strokes of Chine characters as they appear in the next several pages. These exercises, for example, are from the first few pages of the Chinese Character Exercise Book, published by Foreign Languages Press, Beijing.

第 一 课 Lesson 1

一、汉字基本笔画的写法（1），

Ways of writing the basic strokes of Chinese characters (1),

丿（丿）— 由右上向左下。如果由左下向右上，就变成另一种笔画〔𠂉（𠂉）〕了。

Write from top-right to bottom-left. It will become the stroke [𠂉 (𠂉)] if written the other way round.

丶（丶）— 由左上向右下，不能由右下向左上。

Write from top-left to bottom-right, but not the other way round.

一（一）— 由左向右，不能由右向左。

Write from left to right, but not the other way round.

丨（丨）— 由上向下，不能由下向上。

Write downward, but not the other way round.

丶（丶）— 由左向右下方点一下。

Dot from left to bottom-right.

乛（乛）— 由左向右再向左下方，不要写成直角。

Write from left to right and then to bottom-left. Notice that this stroke cannot be written in a right angle but an acute one.

二、按正确写法描写下列笔画：

Trace each of the following strokes in the correct way:

丿（丿）	丿	丿	丿	丿	丿	丿	丿	丿
丶（丶）	丶	丶	丶	丶	丶	丶	丶	丶
一（一）	一	一	一	一	一	一	一	一
丨（丨）	丨	丨	丨	丨	丨	丨	丨	丨
丶（丶）	丶	丶	丶	丶	丶	丶	丶	丶
乛（乛）	乛	乛	乛	乛	乛	乛	乛	乛

三、按正确写法临写下列笔画，最后写出一个本课学的包含这一笔画的汉字：
Copy each of the following strokes in the correct way in the squares of each row except the last one in which write a character containing this stoke:

例 Example

丿	丿	丿	丿	丿	丿	丿	丿	丿	八

丶									
一									
丨									
丶									
乛									

四、按正确笔顺描写下列汉字：

Trace each of the following characters in the correct stroke-order:

八	八	八	八	八	八	八	八	八	八
不	不	不	不	不	不	不	不	不	不
大	大	大	大	大	大	大	大	大	大
一	一	一	一	一	一	一	一	一	一
五	五	五	五	五	五	五	五	五	五

三、按正确笔顺临写下列汉字，注意汉字的每个笔画在方格中的位置（临写前，给汉字所占的方格画上"十"字虚点线）：

Copy each of the following characters in the correct stroke-order, paying attention to the position of each stroke in the crossed square. (Before you copy, make a cross with a dotted line in each of the squares on the left.)

八		bā
不		bù
大		dà
一		yī
五		wǔ

第二课 Lesson 2

一、汉字基本笔画的写法（2）：

Ways of writing the basic strokes of Chinese characters (2):

一（㇐）— 先由左向右，到笔画转弯时要很快提笔，不要写成"㇕"。

Write from left to right and lift your pen quickly when you make the hook so as not to make something like "㇕".

丨（㇑）— 先由上向下，到笔画转弯时要很快提笔。

Write downward and lift your pen as you make the hook.

㇏（㇏）— 由右上向左下再向右下，相当于"丿"和"㇏"两种笔画的合成，但不能写成两笔。

Write from top-right to bottom-left and then to bottom-right. This stroke is about the same as the combination of the two strokes "丿" and "㇏", but it must not be written into two separate strokes.

二、按正确写法描写下列笔画：

Trace each of the following strokes in the correct way:

一（一）	一	一	一	一	一	一	一	一
丨（丨）	丨	丨	丨	丨	丨	丨	丨	丨
丿（丿）	丿	丿	丿	丿	丿	丿	丿	丿

三、按正确写法临写下列笔画，最后写出一个本课学的包含这一笔画的汉字：

Copy each of the following strokes in the correct way in the squares of each row except the last one in which write a character containing this stroke:

一								
丨								
丿								

四、按正确笔顺描写下列汉字：

Trace each of the following characters in the correct stroke-order:

你	你	你	你	你	你	你	你	你	你
好	好	好	好	好	好	好	好	好	好
口	口	口	口	口	口	口	口	口	口

五、按正确笔顺临写下列汉字，注意汉字的每个笔画在方格中的位置（临写前，给汉字所占的方格画上“十”字虚点线）：

Copy each of the following characters in the correct stroke-order, paying attention to the position of each stroke in the crossed square. (Before you copy, make a cross with a dotted line in each of the squares on the left.)

你		ni
好		hǎo
口		kǒu

Another valuable resource that might help to summarize this section on the Chinese written language is A Children's Palace: Ideas for Teaching About China. (See Resources).

If you can spend several periods on a study of the basic strokes, apply writing, including numbers, to cap the experience. The following pages from A Children's Palace make the applications very well.

1	一	6	六	100	百
2	二	7	七	1000	千
3	三	8	八		
4	四	9	九		
5	五	10	十		

THE CHINESE WRITE THE NUMBER 11 LIKE THIS: 十一

WRITE THE NUMBER 12 _____ 16 _____

13 _____ 17 _____

14 _____ 18 _____

15 _____ 19 _____

20 IS WRITTEN LIKE THIS: 二十

WRITE THE REST OF THE TENS IN CHINESE (WATCH OUT FOR 100).

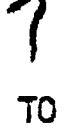
(30) _____ _____ _____ _____

_____ _____ _____ _____

21 IS WRITTEN LIKE THIS: 二十一

WRITE THESE NUMBERS IN CHINESE: 35 _____ 76 _____

53 _____ 92 _____ 147 _____

	ANCIENT	MODERN
SUN		日
MOON		月
MOUNTAIN		山
MOUTH		口
RIVER		水
WOMAN		女
SON		子
MAN		人

THE CHINESE ALSO HAD TO HAVE SYMBOLS TO EXPRESS IDEAS AS WELL AS THINGS. THERE ARE NOT THINGS WITH THE NAME "UP", "LARGE" OR "GOOD". THIS IS THE WAY THE CHINESE HAVE MADE IDEOGRAPHS TO EXPRESS SUCH IDEAS:

UP	上	THE GROUND WITH SOMETHING ABOVE IT
DOWN	下	THE GROUND WITH SOMETHING BELOW IT
LARGE	大	A MAN 人 WITH HIS ARMS SPREAD OUT
BRIGHT	明	THE SUN AND THE MOON TOGETHER
GOOD	好	A WOMAN AND A BOY TOGETHER (IN OLD CHINA THE MOST IMPORTANT THING WAS TO HAVE A SON TO CARRY ON THE FAMILY. THEREFORE A WOMAN AND A BOY COMBINE TO SHOW THE IDEA OF "GOOD".

In addition to its non-alphabetic status, the Chinese language is also tonal in nature. The pitch or the change in pitch of a syllable denotes a change in meaning. This part of the unit will again use as the standard, northern or Beijing dialect, and the tones associated with it.

Consider this example. (Again, the transliteration features pinyin as a phonetic approximation of the character. A pinyin pronunciation guide will be found following this section. You may also refer to audio tape exercises as a way of "tuning" your ear to tonals and the subtleties of sound).

1st Tone	2nd Tone	3rd Tone	4th Tone
yī	yí	yǐ	yì

The change in tone means that the first tone represents one, the second move, the third chair, and the last tone means to translate.

Consider this summary from the accompanying China Traveler's Phrase Book, which is a resource thought to be valuable for teaching the unit.

1st Tone —
2nd Tone ˊ
3rd Tone ˇ
4th Tone ˋ

— 1st tone (high level): spoken high with the voice neither rising or falling, like a single extended musical note; e.g., *mā* ("mother")

ˊ 2nd tone (rising): begins with the voice lower and rising to a 1st tone, making it sound like a question; e.g., *má* ("hemp")

ˇ 3rd tone (falling/rising): the voice dips and rises. The dip is low and rather elongated and the rise is somewhat quicker; e.g., *mǎ* ("horse")

ˋ 4th tone (falling): the voice drops from high to low; very abrupt and definite; e.g., *mà* ("to curse")

As Chinese words are usually comprised of two or more syllables together, the tones may vary according to the syllabic combinations. Thus, for example, when two third tones come together, the first third tone becomes a second tone. In this phrase book, such tone alterations have been made and the *pinyin* entries should be pronounced as presented.

There is also a neutral tone, indicated by the symbol (˚), which should be pronounced lightly and without emphasis.

After the teacher has introduced the idea of tones, the students should become aware of the pronunciation guide for pinyin. Since it is important for students to grasp the transliteration of the sound as it is approximated in our alphabet, a separate appendix will list two versions of available pinyin pronunciation guides as they popularly appear. The teacher may want to spend some time with an audio tape or, ideally, with a native speaker if available in the community. However, with some practice, a less than skilled practitioner can achieve some success with the sounds and how they can be represented.

Finally, these basic rules are also reproduced from the Traveler's Guide to get us started into looking at basic grammar and structure.

Consider these six rules in our exploration.

Basic Grammar

1 The declarative sentence always has the word order:

SUBJECT—VERB—OBJECT

I am going to China
Wǒ qù Zhōngguó
waw chü joong-gwaw

2 The interrogative sentence can be formed by adding *mǎ* at the end, e.g.:

Are you going to China?
Nǐ qù Zhōngguó mǎ?
nee chü joong-gwah mah

3 Chinese nouns do not have articles or plurals. Thus, the word *bǐ* can mean pen, the pen, or the pens.

4 Verbs are not conjugated, e.g.:

I look	wǒ kàn	waw kahn
You look	nǐ kàn	nee kahn
He looks	tā kàn	tah kahn

5 The past tense can be formed by adding the suffix *le* to the verb, e.g.:

I looked	wǒ kànlè	waw kahn-luh

6 To indicate negation, place *bu* in front of the verb, e.g.:

I'm not looking	wǒ bú kàn	waw boo kahn

For the past tense of the verb, use *méi yǒu*, e.g.:

I didn't look	wǒ méi yǒu kàn	waw may-yo kahn

(*méi yǒu* is also the negative form of *you*, "to have")

PRONOUNS

1.	wǒ	I, me
2.	nǐ	you
3.	tā	he, she, it

To form the plural, add men

1.	wǒmen	we, us
2.	nǐmen	you
3.	tāmen	they

To indicate possession, add de

1.	wǒde	my, mine
2.	nǐde	your, yours
3.	tāde	him, her, hers, its

GREETINGS

Nǐ hǎo!

How are you!

Nǐmen hǎo!

How are you!

Zāo!

Good morning!

Huānying

Welcome

Zàijiàn

Goodbye

Míngtiān jiàn

See you tommorrow

NUMBERS

yī	one
èr	two
sān	three
sì	four
wǔ	five
liù	six
qī	seven
bā	eight
jiǔ	nine
shí	ten

Numbers 11 through 19, are constructed in this fashion.

shíyī	eleven	èrshí	twenty
shíèr	twelve	sānshí	thirty
shísān	thirteen	___shí	forty
shísì	fourteen	wǔshí	____
shíwǔ	fifteen		
shíliù	sixteen	COMPLETE NUMBERS	
shíqī	seventeen	60 - 70 - 80 - 90	
shíbā	eighteen	bǎi	hundred
shíjiǔ	nineteen	yìbǎi	one hundred

FAMILY/AGE

bàba	father
māma	mother
xiānsheng	Mr., sir
fūrén or tàitai	Mrs., madame
gēge	older brother
dàmā	aunt
dàye	uncle

In Chinese, the age of a person vís a vís the speaker appears in speech. For example, if a person is older than the speaker, the adjective lǎo (old) is used. If the person spoken to or about is younger, the adjective xiǎo (young) is used.

Consider these examples.

Lǎo Chén
Old Chen

Xiǎo Zhāng
Young Zhang

SOME VERBS

huān yíng	welcome
tīng	hear, listen
xǐ huan	like
kàn	see, look
mǎi	buy
mài	sell
chī	to eat

CLOTHING AND FOOD

chá	tea
fàn	rice
dàn	egg
huánggua	cucumber
jī	chicken
shàngyī	coat
xié	shoes
yīfu	clothes
yǐzi	chair

PROCESS

Students should be as familiar as possible with both the pinyin system of pronunciation as well as an idea of the four tones. While memorization may be desirable, the object of these few activities is to introduce students to language mechanics. By this method, students should now be able to start some simple sentence construction by using the pronouns, verbs, family titles and nouns. On page 3, for example, we mentioned the unit of study approach with the list of 10 categories as a desirable approach. In our example here, we are using five. For the sake of brevity, we have combined food and clothing into one category. If this method proves successful, teachers are encouraged to consult the resource page so that a supplementary word list can be formed to extend this activity.

Here are but a few examples of sentences that can be constructed by use of this method.

Wǒ xǐ huan lǎo Cháng

I like old Chang.

Wǒmen kàn Wáng Xiānsheng

We see Mr. Wang.

Wáng Xiānsheng mǎi xié

Mr. Wang buys shoes.

Lǎo Cháng mài yīfu

Old Chang sells clothes.

Tāmen chī fàn, dàn

They eat rice and eggs.

Wáng Xiānsheng mài èr shàngyī

Mr. Wang sold two coats.

SUMMARY

This section as well as the preceding one on Chinese written language are designed to engage student interest in aspects of culture we normally do not explore due to time constraints or a fear of the material. This attitude should not hinder younger students in their exploration of both written and oral language.

The activities presented in this section are such that a middle grades teacher, with some effort and preparation, could deliver an enjoyable language experience as well as an informative excursion into Chinese history, geography, and culture. It is recommended, however, that the audio tape (or comparable item) listed on the resource page be utilized so that a novice teacher would approximate the tonal quality of the Chinese language.

RESOURCES

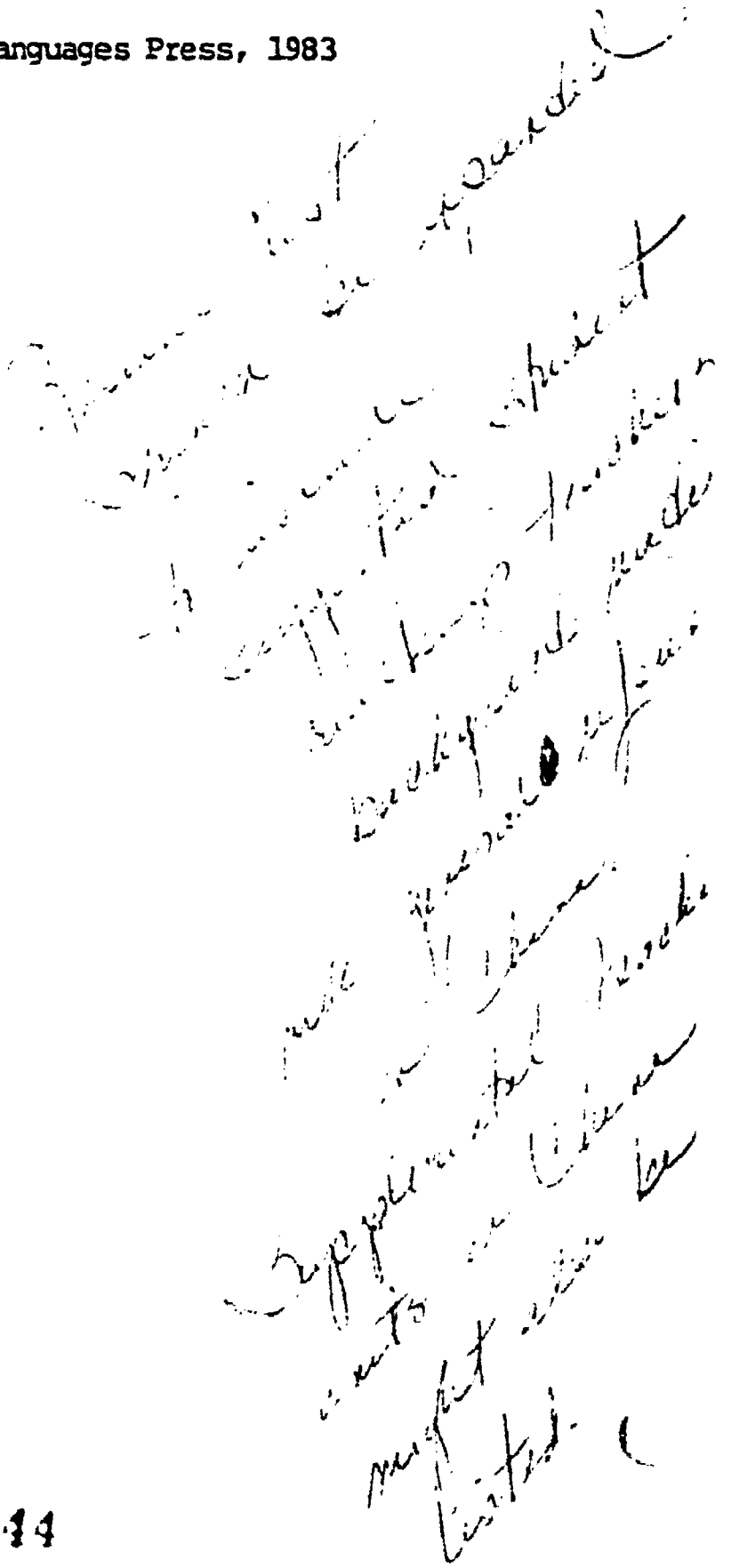
A Children's Palace: Ideas for Teaching About China. Urbana: University of Illinois, 1978

Basic Chinese Course. Shanghai: East China Normal University, 1983

Cambridge Encyclopedia of China. London: Cambridge University Press, 1982

China Traveler's Phrase Book. New York: Eurasia Press, 1983

Chinese For Beginners: Beijing: Foreign Languages Press, 1983



APPENDICES

Pronunciation

From National Committee on U. S. China Relations

Simple initial sounds
b--as in but
p--as in pie
d--as in dug
t--as in tie
g--as in gun
k--as in kite
h--like the ch in the German nach

Complex initial sounds
zh--like the J in June
ch--as in the ch of cheese
sh--like the sh in shoe
r--like the r in crew
z--like the ds in lids
c--like the t's in it's
q--like the ch in cheap
x--between the s in see and the sh in she

Final sounds
o--like the a in all
e--like uh in huh
en--like the en in chicken
eng--like the ung in lung
ei--as in eight
ou--as in soul
ao--like the au in sauerkraut
a--as in father
an--as in con
ang--a as in father and ng in sing
ai--as in aisle
ong--like the ung in the German jung
u--as in rule
ua--like wa in wander
uo--like in wa in waltz
uai--like the wi in wide

ui--like the ay in way
uan--as in UN of the United Nations
un--as in under
uang--u and ang (above)
ueng--u and ung as in lung
i--as in machine
ai--like eye
iao--like the yow in yowl
ie--like the ye in yet
iu--like the u in union
ian--like i in machine and an in man
in--like the ine in machine
iang--like the i in machine and ang (above)
ing--as in sing
iong--like the i in machine and ong (above)

Pronunciation

(From China Traveler's Phrase Book

a	as in "*f*ar," never as in "fail"
ao	sounds like the "ow" in "all*ow*"
c	as the "ts" in "i*ts*"; "cao" is thus read "tsao"
ch	as in "*ch*ip," strongly aspirated
cl	an aspirated "ts"
g	always hard, as in "*g*o"
h	as in "*h*er," strongly aspirated (and slightly guttural)
i	as the vowel in "*ea*t"; when it follows syllables beginning with "c," "ch," "r," "s," "sh," "z," and "zh," it sounds like the "ir" in "s*ir*"
o	as the "aw" in "l*aw*"
ou	rhymes with the "ow" in "l*ow*"
q	as the "ch" in "*ch*eek," not strongly aspirated
qi	as the "ch" in "*ch*eese," lightly aspirated
qu	as in the French "tu," with lips pursed
si	as in a very strongly aspirated "s"
ü	as in the French "u"
u	as in the "oo" in "t*oo*"
x	a cross between "h" and "s," written in some romanizations as "hs"
z	as the "ds" in "su*d*"
zh	roughly the English "j"

From The Great Wall
Yu Jin, ed. Cultural Relics
Puhlishing House
Beijing

The Great Wall

Luo Zewen

In many parts of China long barriers were built, constituting extensive systems of fortifications. The one in north China is above all the others in dimensions. It is called in Chinese the "Ten Thousand-li Great Wall" as it totals more than 10,000 li or 5.000 kilometres in length, running across vast areas from west to east. Like a huge dragon, it winds all the way through the expansive deserts, extensive pastures and towering mountains and reaches to the seaside. It has long been known as one of the wonders of the world and it was reported that it was among the few artificial objects on the earth that were best observable to the astronauts who had landed on the moon.

The gross length of all those defence works that have been constructed is by no means limited to 5,000 kilometres. More than a score governments, either imperial or vassal, have been confirmed by the historieans to have erected such barriers of great length. The Great Wall built by the Qin Dynasty, for example, overshot this description. So did either the Han-Dynasty or the Ming-Dynasty Great Wall.

If we lump together the lengths of all the great walls constructed in the course of time, the gross would be beyond 50,000 kilometres. Remains of such ancient defence works have been found by archaeologists in such provinces as Gansu, Shaanxi, Shanxi, Hebei, Liaoning, Jilin, Heilongjiang, Henan, Shandong, Hupei and Hunan as well as the autonomous regions of Xinjiang, Ningxia and Inner-Mongolia and the suburbs of Beijing and Tianjin. In Inner-Mongolia alone, roughly 15,000 kilometres of such walls have been erected through the centuries.

Tremendous amounts of work were involved in building those massive barriers. An estimate based on the data for a single endeavour made during the reign of the Ming Dynasty shows that a fence one metre in breadth and five in height which is built of those bricks and rocks then used will be longer than the equator. And a five-metre broad road paved with these materials to the thickness of 35 centimetres will be long enough to make more than three rings round the earth. If we base our estimate on the data for all the Great Wall building projects that have been launched, the belt of such a fence will suffice to tie the earth in a dozen rings and such a road will be approximately 40 times as long as the equator.

The construction of the Great Wall was unique not only in its scale but also in the span of time it has covered, a span of more than twenty centuries.

The first brick was laid for the Great Wall in the seventh century B.C.

A prolonged period when dozens of small vassal states contended against each other under a nominal spreme ruler came to an end with the emergence of seven strong kingdoms. Frequent wars made it necessary for them to erect high barriers along their own borders. Researchers into the history of defence works assumed that the earliest great walls were brought into being by connecting the separate and sporadic fortifications with beacon towers. The first great wall of such a description was the one built by the kingdom of Chu. It extended a few hundreds of kilometres across the regions in what is now southern Henan province. Other kingdoms. Qi, Wei, Han, Zhao, Yan and Qin followed, constructing similar barriers along their own frontiers. Even the tiny state Zhongshan in modern Hebei province had its own great wall.

The fourth century B.C. witnessed the frequent invasions by the Tungus and Hun nomads against the northern kingdoms Yan, Zhao and Qin. The invaders, when they withdrew, would carry away whatever they had captured with them, including the prisoners and the riches. This forced those kingdoms to erect fortifications along their respective northern borderlines. These separate barriers, called by later historians pre-Qin great walls, though much smaller in size and total length, were nevertheless the forerunner of the famous Great Wall constructed by the First Emperor of Qin.

In 221 B.C., a unified empire composed of different nationalities was founded in China when the last of the other six kingdoms was annexed by Qin. The emperor sent in the same year a 300,000-strong army commanded by General Meng Tian under the supervision of the crown prince to drive the Huns out of the region south of the Yellow River at the southwestern tip of modern Inner-Mongolia. By the order of the supreme ruler himself, the barriers built by Yan, Zhao and Qin itself against the Huns were connected, consolidated and extended. Thus the Great Wall, the greatest wonder of the world at that time, was brought into being to form a mighty system of fortifications defending the northern frontiers of the newly-built empire. From modern Minxian county, Gansu to modern Liaoning, over an area as wide as more than 5,000 kilometres, it blocked the nomads' inroads. The monarch also ordered the fortifications which the former kingdoms had built against each other be dismantled, with a view that no separation of the empire into splittist vassal states will ever reappear.

The dynasties that ruled China or a part of it later on — the Western and Eastern Han (206 B.C.-220 A.D.), the Northern Wei (386-534), the Northern Qi (550-577), the Northern Zhou (557-581) as well as the Sui (581-618), Liao (907-1125), Jin (1115-1234) and Ming (1368-1644) made large-scale repairs and modifications on the Great Wall. The Han and Ming outshone all the other dynasties in this respect. The whole system of fortifications constructed by the Han empire totaled more than 10,000 kilometres in length, reaching as far as the beach of the Lake Lobunor in modern Xinjiang.

The building of the Great Wall and the architectural technique based on it came to a culmination during the reign of the Ming Dynasty — the last dynasty that looked upon this long barrier as a defence.

The eastern parts of the Ming Great Wall were built of ashlars or of ashlars and bricks which provided more solidity. Zhu Yuanzhang, the founder of this dynasty, gave orders to Marshal Xu Da in 1368, the very first year of his reign, to the effect that the Juyongguan and other passes along the Great Wall be rebuilt. This led out a marathon project which lasted until about 1500 when the main portion of the whole defence line was completed. And some appendages of it were still under construction as late as early the 17th century when the rule of that dynasty came to an end. From the bank of the Yalu River the Ming Great Wall extended westward into the Qilian mountains, with a total length of more than 6,300 kilometres. This extensive frontline was held by powerful armies under nine subcommands. The Ji subcommand which controled the area from the Shanhaiguan to the Juyongguan Pass — area vital to the security of the capital, errected such barriers as eclipsed the defence works built elsewhere both in dimensions and in solidity.

The new political situation and strategic requirements that arose in the early years of the rule of the Qing Dynasty prompted Emperor Kanxi who reigned between 1662 and 1722 to make the decision that no more construction or repair of the Great Wall was to be done. The policy of control over the northern nomads through conciliation replaced the traditional reliance on the fortifications. As gestures of such conciliation and also of due respect to the religion of the northern ethnic groups the emperors Kangxi and Qianlong (reigned 1736-1796) built a summer palace and a number of great Lamaistic temples in Chengde. Despite the fact that the Osier Fence was erected in the northeastern territories as a means of restricting the nomads' activities and that on separate occasions the Great Wall was used in repraisals against popular uprisings, this ancient defence work no more bore the same significance as it had borne.

The great walls, as defence works built by different power groups within China against each other, can be found not only in the regions drained by the Yellow River but also in the Yangtze valley. They stood in many parts of China, and in a few places they formed as many as over twenty lines. These barriers have never been considered as symbols of administrative demarcation. Jurisdiction was established on either side of the Qin Great Wall as early as the third century B.C. and the later Great Wall was erected still to the north, with an interspace of a few hundred to a few thousand kilometres between them. The Ming Dynasty founded a local civil and military administration in what is now the Soviet city Nickolayevsk which was thousands of kilometres beyond the Great Wall. All these make it clear to every sober mind that the Great Wall has never been the borderline of China.

In ancient times when swords, spears and bows were the major weapons, the Great Wall was a defence of remarkable effectiveness, though it means little in modern warfare. The massive barrier, so high and so solidly-built, stood as a powerful barricade confronting the nomadic cavalry which moved with the highest mobility then ever known to the world. Consolidation and improvement over 2,000 years turned separate barriers, sporadic fortresses, isolated beacon towers and other installations into a complete defence system operated by different levels of govern-

ment — from the imperial court down to the local garrisons. The Ming Dynasty, for example. put the Great Wall under nine subcommands, namely Liaodong, Ji, Xuanfu. Datong, Shanxi. Yensui, Ningxia, Guyuan and Gansu. The commanders were responsible to the Defence Minister or another high-ranking official and to the emperor himself. Each subcommand had under its administration several regions, which in turn controled the passes, fortresses and terraces. The Shanhaiguan Pass, for instance, was in the region bearing the same name, which was under the subcommand of Ji. Documentary evidences name such passes as Shanhaiguan, Nankaikouguan, Nanshuiguan. Beishuiguan, Hanmenguan, Jiaoshanguan, Sandaoguan and Sierchiguan as well the watchtowers attached to the Nanshuiguan and Beishuiguan passes and a number of fortresses and terraces as establishments under the Shanhaiguan regional headquarters. And the garrison of each installation. when they had detected an enemy movement, would use ervery possible signal including the smoke at the beacon towers as means to pass the information up to one level above another until it reached the imperial court.

The Great Wall was a comprehensive system of a variety of defence works. The *guancheng* or fort. often built at such strategically important passageways as those lying at an elevation or in a deep valley or those controling a river or a gulf, was a highly crucial position where one soldier of the garrison would be able to block the inroad of thousands of the invading army. The Juyonguan Pass near Beijing is a model of such an establishment. This fort was supported by a fortress called Nankou at the south and shielded at the north by the fortresses Shangguan and Badalingkou which in turn were sheltered by the Chadaocheng fortress with its beacon towers and front walls. And the fort of Shanhaiguan, too, had four fortresses surrounding it and thus a well-designed system of defence works was formed.

The Great Wall varies in height and breadth with the specific features of the terrain. At mount Badaling, for example, the barrier averages seven to eight metres in height and six to seven metres in breadth. Inside the wall there are at intervals arched entrences with stairways leading to the top which is paved with more than three layers of bricks. The breadth of the brick pavement allows the march of five horses or ten men abreast. There are one-metre high parapets along the inner edge of the pavement and battlements twice as high along the outer edge. And at the upper part of each merlon there is a peephole and an embrasure at a lower position. Besides these installations we can see drains and spouts along the edges of the wall. Buttresses stand here and there along this extensive barrier, equaling it in height. A sentry box caps each buttress. And there are watchtowers. Such an installation is a two-storeyed building. More than a dozen rooms built of bricks on the first floor could house nearly a score soldiers and the second floor with battlements would provide a wide field of vision. Platforms for raising the beacon can be found on some of these watchtowers. At key points stand those buildings that played the roll of depots where large quantities of bows, arrows and other weapons as well as gunpowder and bullets were stored. All these lofty buildings were constructed under the supervision of the well-known general Qi Jiguang (1528-1587) in the capacity of the head of the subcommand of Ji.

Standing on the peaks or the mounds, the beacon towers built either of bricks or of earth were the means of communication. Smoke at daytime and fire at night were used as alarms. The sentries would burn a mixture of wolves' dung with sulphur and nitre on these towers and at the same time fire the guns the moment they detected any signs of invasion. The rules issued on 1468 provided that one column of smoke with a single gunshot was the signal for the appearance of an enemy force of about a hundred. two columns with as many shots for 500, three columns with as many shots for 1,000 and five columns with as many shots for over 5,000. Thus. an alarm could be transmitted as far as 500 kilometres within several hours and the information would include the numerical strength of any invading force.

So complex and so complete a defence system, the Great Wall of China outshone all the similar installations erected by that time elsewhere in the world.

Historical evidences have made it known to the world that China constructed her great walls whether she was under the rule of Han families or of clans of other ethnic groups. Excluding those walls built during and before the reign of Qin, we shall see that among the dynasties that embarked on the construction of these massive fortifications no more than three, namely Han (206 B.C.-220 A.D.), Sui (581-618) and Ming (1368-1644), were of the Han nationality while the others, Northern Wei (386-534). Northern Qi (550-577), Northern Zhou (557-581), Liao (916-1125) and Jin (1115-1234), were all of non-Han groups Even the Mongol dynasty Yuan who based its strategy on the highly mobile cavalry made repairs on separate installations attached to the Great Wall. This has led us to the necessary conclusion that this unique system of fortifications was a defence for the rulers of different Chinese nationalities rather than one protecting the Han monarchs against the other ethnic groups. Now that the times typical of the unpleasant relationships between China's different nationalities are gone once for all, the Great Wall stands before us as an immortal witness to the wisdom, industry, creativeness and architectural technique of the people of various ethnic groups in ancient Cathay.

The labouring people under the rule of the successive dynasties paid dearly in blood and sweat in the largescale building projects. The garrison troops, peasants conscripted from various parts of the empire and convicts constituted the main portion of the labour force for the construction. consolidation or repair of the Great Wall. The builders working for the Qin Dynasty consisted of the 300,000-strong army under General Meng Tian, officials found guilty of abuses and those who defied the emperor's decree for the burning of books besides the multitudes of corvée labourers whose number has so far eluded all attempts to make an estimate. The folklore about the widow Mengjiang* mourning over her husband provides an insight into the

* A story which first became known during the seventh century tells of a woman named Mengjiang whose husband Fan Xiliang was conscripted by the First Emperor of Qin of the early third century B.C. into the Great Wall project. She walked thousands of kilometres with winter clothes she had made for fan to the construction site only to find that he had died of hard labour and miserable living conditions. Heart-broken, she trudged along the newly-built Great Wall, mourning so sadly that a part of the wall burst open to expose the dead body of her husband.

scale and cruelty of these projects. And in 555, the Northern Qi court conscripted as many as 1,800,000 labourers for the reconstruction and repair of the 500-kilometre barrier extending from the neighbourhood of modern Beijing to modern Datong, Shanxi. A stone tablet found on the top of the Great Wall at Mount Badaling is inscribed a written record of how thousands of soldiers plus large numbers of corvée labourers repaired a 200-metre portion of this long barrier.

The builders of the Great Wall gained enormous experience through ages. First of all, they came to realize the importance of following the terrain. The regions where these fortifications stand is characteristic of high mountains, deep valleys, expansive deserts or far-reaching pastures, where construction was all but impossible in those ancient times. On Mount Badaling we can see the ashlars more than three metres long, weighing over a ton. How could those builders bring such materials up so steep ridges to the top of them to build a wall so long and so high? The mystery lies to some extent in their skill in making good use of the specific terrain. A ridge, for example, could be built in the wall as its foundation and backbone a steep could be turned into a part of the barrier, and all the installations were erected where the terrain provided the greatest economy of labour.

To use local materials — this was another rule developed by the Great Wall builders through long experience. Before the use of bricks the materials were chiefly earth, stone and lumber, the demand of which was indeed enormous and reliance on the local resources was the only possible solution. A usual device used in the deserts was to support the wall of sandy soil with layers of tamarisk twigs and reeds, the only solid materials to be found there.

Bricks and mortar were brought to the construction site either by passing them from hand to hand or by cableways. Long ashlars were edged up the slopes with the help of log rollers, crowbars and winches. Thus the Great Wall remains to be a unigue building embodying the industry, skill and invention of the ancient labourers of various Chinese ethnic groups.

Besides being an important military installation, the Great Wall has been a significant factor in the economy and culture in north China and also in the safeguarding of the east-west traffic.

The third century B.C. saw the institution of the projects of garrison troops openning up wastelands in order to be self-sufficient in food supply — an effective solution in the regions along the Great Wall, where the economy was backward. Such plans gave great impetus to the development of those areas in not only agriculture, livestock farming but also culture.

Friendly exchanges between China and the countries in Europe and central and west Asia started in very ancient times. After Zhang Qian's (d. 114B.C.) mission to the "Western Regions", the great wall to the west of modern Lanzhou as well as some other fortifications were constructed. One of the considerations behind such an effort was the defence of the route between metropolitan China of that time and those regions against the possible invasion and destruction by the Huns from the north.

That passageway is known to the world as the Silk Route because silk and other Chinese products, popular then in the international market, were brought to the Mediterranean countries by this route via Parthia, Asyria and other states. And this route also made it possible for European woolen textiles, melons and fruits to be carried into the powerful empire in east Asia. The murals and sculptures discovered in Dunhuang, Maijishan Hill and other places in Gansu and Xinjiang bear witness to the once flourishing artery important for not only commercial transactions but also valuable cultural exchanges.

The Great Wall also contributes to scientific researches. Students of historical geography, by their studies into the available data regarding this ancient installation and its neighbourhoods, have gained more comprehensive knowledge on the change of course of the rivers and information on the expansion of the deserts. Such knowledge and information will serve as a sound basis on which projects for water conservancy and the reclamation of deserts could be drawn. And the seismologists could find on the Great Wall signs of faulting and displacement which arose as a result of ancient earthquakes that occurred with comparative high frequency in those regions. Study of these signs will help to reveal the laws governing the seismic incidences.

To areas outside the YumenguangPass, No vernal breeze has been known.
Against the background of the setting sun A lonely fortress stands.

These lines from ancient poems give us a vivid picture of what the regions along the Great Wall were like. But epochmaking changes took place at last, bringing into being a new, unified socialist China where different ethnic groups live in peace like brothers. And the time-honoured Great Wall remains, standing proudly as a symboi of the diligence, intelligence and willpower of this great nation.

In 1961, the State Council of China declared the Shanghaiguan Pass, the Juyongguan Pass, the Cloud Terrace, the Jiayuguan Pass and some other installations along the Great Wall to be protected monuments. Areas along this immense barrier, which were once poorly-developed and poverty-stricken, now boast newly built factories, farms schools and living quarters,

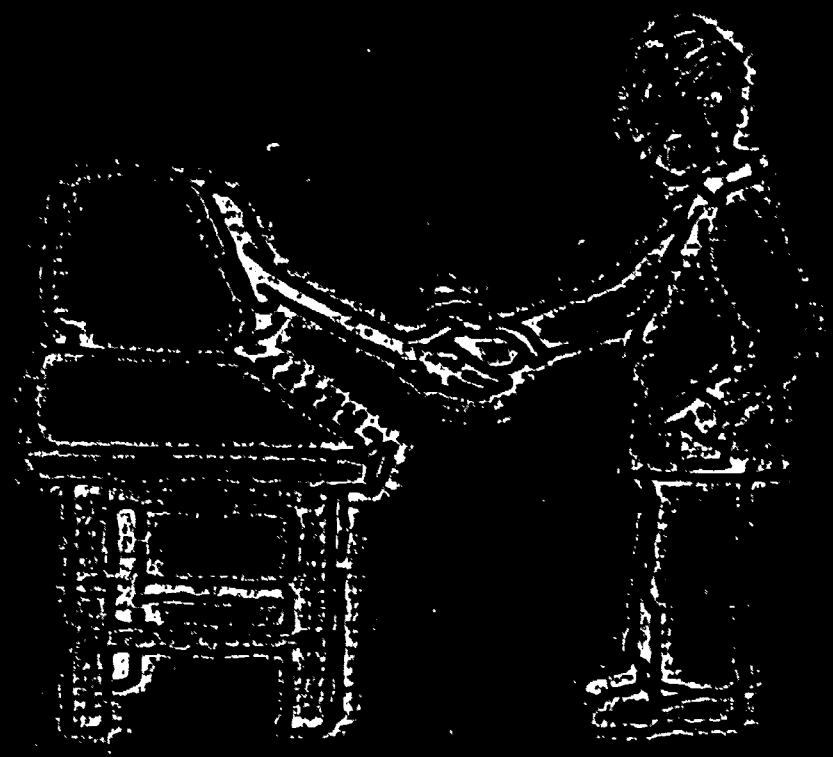
Flourishing cities have appeared. Bareave mountains have become forested. Oases come into existence, dotting the deserts. New life has been brought to the regions on either side of the Great Wall, giving it a look more imposing than what it bore in the long past.

(Translated by Du Youliang)

CHINA CONNECTION

A COMPUTER SIMULATION GAME

WRITTEN BY [illegible]



EXAMPLES OF TEACHER MATERIALS, STUDENT MATERIALS,
AND THE INFORMATION ON THE COMPUTER

CHINA CONNECTION PROGRAM SAMPLE

Table of Contents

Statement of Contents

The following material represents a slice of each of the component parts of **China Connection**, a computer simulation game for secondary students. The game is designed to encourage higher level thinking skills and greater global understanding while teams of students engage in simulated travel through four cities in China via a computer. Sections from the Teacher's Travel Guidebook, from the Student's Travel Guidebook and from the information which would be on the computer have been included in order to demonstrate how the game works. In addition, each team of students would have a Travel Journal--a consumable workbook in which they record their solutions to China Problems and where they keep track of their travel budgets.

China Connection is an innovative program which combines the very best of what we know about how students learn with a more challenging application of computer use in the classroom. It is just this sort of computer program that educational specialists are asking for in order to challenge students and put computers to uses more suitable to their complexity.

TEACHER'S TRAVEL GUIDE

Table of Contents

The Complete Teacher Travel Guide Includes:

CHINA CONNECTION

Teacher's Travel Guide

1. STATEMENT OF PURPOSE

Based on imminent societal changes forecasted by knowledgeable futurists such as Alvin Toffler in Third Wave and Naisbitt in Megatrends, it is apparent that our educational system needs to include a more comprehensive focus on global education. As our world grows smaller through technological advancements, all encompassing media coverage, and resource sharing, the necessity to understand cultural differences increases. And, if one out of every four people in the world is Chinese, a simulated trip to China is perhaps one of the best ways to begin bridging cultural gaps for our students.

2. GOALS AND OBJECTIVES

1. Familiarize students with the social customs, historical contributions and current conditions in modern China.

2. Provide students with valuable experience in group learning and group decision making.

3. Promote individual student responsibility as an essential part of group learning.

4. Encourage critical-thinking, creative thinking, and problem-solving skills surrounding current issues which face the Chinese.

5. Provide interaction with realistic problems and challenges one confronts while traveling in a foreign country.

6. Provide a framework for students to analyze and synthesize information learned about China during the simulation through a concluding critical-thinking project.

3. USE OF SIMULATIONS AS A LEARNING TOOL

Before launching into **China Connection**, an explanation of simulations as learning tools will prove helpful.

Learning by doing through the use of simulations attempts to replicate real life situations to teach skills and abilities students otherwise would not be likely to experience. Simulations are ideal for training students in problem solving, decision making and group process skills by simplifying complex situations so that the concepts are easier to grasp. Simulations can be powerful educational tools not only because of their close similarity to real life situations but because of their impact on students: When students become the active problem solver, they are able to exercise greater control over the learning experience.

In **China Connection** students attempt to solve realistic problems that may be confronted while traveling in China. Each of the problems and tasks presented are designed to provide students with in-depth insights into life in modern China. This simulation will:

-increase student awareness of effective problem solving and group decision making strategies.
-provides students with experience in cooperative learning.
-encourage risk taking, and learning through trial and error.
-teach essential facts about China.

Successful use of simulations depends on effective group process skills. Often times, at the secondary level, students have not had the opportunity to work in groups and may need initial preparation. The following section outlines some suggestions for teaching group process skills to students.

4. COOPERATIVE LEARNING

Successful use of this simulation in your classroom depends directly on how well groups of students work together. Recent research shows that cooperative learning situations positively affect:

a. student achievement
b. critical thinking skills
c. attitudes toward the subject
d. group interaction
e. self esteem and mutual respect

In order to assure successful cooperative learning, careful consideration should be given to group size and selection.

Group Size: To facilitate play in **China Connection**, students will work in teams of four.

Group Selection: Heterogenious groups placing high, medium and low ability students in one group offerS the greatest potential. Mix off-task kids with very productive kids. Mix different races, males and females, handicapped students with non-handicapped students. If you prefer, ask students to list those students they would most like to work with and then build the groups so that each student is working with someone he/she knows well.

Your, students have not had many opportunities to work collaboratively; therefore, they may need to discuss group process skills. Johnson and Johnson identify four levels of coop rative skills required to enhance student learning.

I. Forming the Group:

A. Students move into groups quickly.

B. Students stay with their group.

C. Students use quiet voices.

D. Everyone is encouraged to participate.

E. No "put-downs" are acceptable.

II.

Function in a Group:

A. Group members need to clearly understand the game and the time constraints.

B. Group members should be encouraged to express support and acceptance of other members.

C. Group members should feel free to ask for help and/or clarification and conversely to give help.

D. Students should feel free to paraphrase, explain or clarify another member's contribution.

E. Group members should motivate other members through new ideas or humor or by describing one's own feelings when appropriate.

III. Formulating Ideas:

A. Group members should summarize information just covered and plan strategies to remember necessary information.

B. When individuals summarize information, that summary should be checked by others for clarification and accuracy.

IV. Fermenting Solutions:

A. Group members should be able to criticize ideas, not people.

B. Students should be able to ask for justification of solutions offered.

C. Members should be able to extend or add to a possible solution.

D. Members should be able to generate other plausible solutions.

In order to guarantee that your students can perform these various skills, you may wish to set up practice opportunities. For instance, you may wish to have them break into their groups four or five times to reduce the confusion, the noise and the time it takes. You may wish to assign students roles in practice situations. One student can function as the reader, while another becomes the summarizer while another becomes the clarifier. Practice sessions like this help students to function better in group process situations.

For a more thorough discussion of cooperative learning, its merits and techniques, see Circles of Learning: Cooperation in the Classroom by Johnson, Johnson, Holubec and Roy.

5. FACILITATING THE USE OF CREATIVE THINKING

A major intention of **China Connection** is to stimulate creative thinking and develop effective problem solving abilities in students. In **China Connection** students are faced with complex social and economic problems facing China today. Successful solving of these problems requires well developed creative and critical thinking skills and effective group problem solving processes. To facilitate play in **China Connection** a sample of techniques which encourages creative thinking has been included.

Research conducted by E. Paul Torrance (1970), Frank E. Williams (1967) and Donald Treffinger (1980) indicate that it is possible to teach specific skills designed to enhance creative thinking abilities.

When generating solutions to problems fluent thinking is essential. Fluency means generating many ideas. The process of brainstorming is used as a means for generating a large quantity of ideas. While brainstorming, a specific time limit should be used. Usually five to ten minutes is sufficient. When brainstorming, group participants must be open to suggestions. For this reason, criticism and evaluation of ideas generated must be withheld during the brainstorming sessions. While brainstorming, wild ideas are encouraged. In fact, the wilder the better. Novel ideas often differ significantly from conventional ideas to provide more creative options. Early evaluation of these ideas may prevent the group from seeing their full potential. Keep in mind that when students brainstorm, there is often much laughter. This should be encouraged so that the learning process is fun. In order to generate creative responses students should be encouraged to make the familiar, strange and the strange, familiar through "dynamic reassociation". Students also need to be encouraged to "piggyback" other students' ideas. Building on or combining ideas already generated is part of brainstroming. To encourage practice in brainstorming, **Travelers' Dilemma Problems** will appear on the computer; students will have two minutes to generate eight responses. See "At the Computer" for additional explanation. Below are some simple brainstorming tasks you might use with students to introduce them to creative thinking and the brainstorming process:

List as many uses you can think of for: a blackboard eraser
a cup
a TV that no longer works
a book

List as many words as you can that begin with the letter B.

List as many things that are the color purple.

List as many problems as you can that face the world today.

Another creative thinking skill is flexibility. This is the ability to shift from one thought category to another. Just as an actor shifts from one thought category to another when portraying different roles, so does an individual when exercising flexibility in his/her creative thinking. Flexibility might best be illustrated through the following example:

Imagine that you are brainstorming uses for a cup. Obvious responses would be to use it as a container to hold things, such as pencils. Now, if you turn the cup upside down it no longer functions as a container. Additional ideas are generated. Turning the cup on its side yields yet more uses. As a consequence the number of uses is increased by shifting thought categories.

The SCAMPER LIST is a helpful checklist to refer to when brainstorming and encourages fluency and flexibility.

S	SUBSTITUTE	What could be substituted? What might you do instead? What would do as well or better?

C	COMBINE	What could you combine? What might work well together? What could be brought together?
A	ADAPT	What could be adjusted to suit a purpose or condition? How could you make it fit?
M	MODIFY MAGNIFY MINIFY	What would happen if you changed form or quality? Could you make it larger, greater or stronger? Could you make it smaller, lighter, or slower?
P	PUT TO OTHER USES	How could you use it for a different purpose? What are some new ways to apply it? What does it suggest?
E	ELIMINATE	What could you subtract or take away? What could you do without?
R	REVERSE	What would you have if you reversed it or turned it around? Could you change the parts, order, layout, or sequence?

(Developed by Bob Eberle, 1971—an adaptation of the work of Alex F. Osborn, 1963.)

Originality is producing unusual ideas. Original ideas are different, clever, and novel. An original idea is normally thought of as a statistically infrequent idea. In the classroom original ideas may be judged as ideas not thought of by the other brainstorming groups. Originality should be enouraged and applauded.

Elaboration of creative ideas is an essential component of the creative process. Elaboration is refining, embellishing and expanding an idea, solution, plan, or product. When elaborative thinking is applied to creativity, a delicate balance of critical and creative thinking is achieved. Elaborative thinking is usually applied after some sort of evaluation has occurred in which one idea/solution or a combination of two or more has been selected.

6. PROBLEM SOLVING

In order for students to creatively solve the **China Problems** presented in **China Connection** a group problem solving process is necessary, one that incorporates the components of creative thinking. Below is a description of a creative problem model:

A. STATEMENT OF PROBLEM

Students write the problem they have chosen to solve in their Travel Journal.

B. FACT-FINDING

Students list questions they need to answer before they can solve the problem. They may find the answers to the questions by reviewing the information presented in their Travel Guide Book or by checking out additional resources on China. The answers to the questions are recorded in their Travel Journals before proceeding to step three.

C. BRAINSTORMING SOLUTIONS

Students decide on a time limit for brainstorming ideas. Five to ten minutes is suggested. After the time limit is up the group may decide to take additional time to generate more ideas. While brainstorming, students withhold criticism and evaluation. After brainstorming, encourage students to determine if any of the solutions might be combined.

D. CHOOSING THE BEST SOLUTION

Students begin this step by rank ordering the list of solutions generated in step C. At this point students may also see the possibility for combining solutions. Students then work with the top five for the final determination of the best solution(s). For each of the five solutions, students list the strengths and weaknesses of each and what other problems, if any, the solution might create. Students might lay out this process as follows:

Solution 1	Strengths	Weaknesses	Problems

Solution 2	Strengths	Weaknesses	Problems

As a group, students decide which is the best solution. They may achieve this by voting, reaching consensus through discussion or establishing criteria and rating each on a scale from 1-5. Students should be encouraged to experiment with different ways for choosing the best solutions.

In their Travel Journals students should describe in full detail the solution they have selected.

E. BRAINSTORMING IMPLEMENTAION PLANS

In this step students brainstorm all the possible ways the solution may be carried out. This involves the who, what, when, where, how, and why of the situation. Once again, while students are brainstorming no criticism is allowed. These responses should be recorded in their Travel Journals.

F. CHOOSING THE BEST IMPLEMENTATION PLAN

Students decide initially which ideas can be combined and which ones are necessary for effective implementation. After these decisions have been made, students list the specific steps for carrying out the plan. Who, what, where, why and how should be described for each step. These steps are recorded in the Travel Journal.

ADDITIONAL ACTIVITIES

You may want to provide class time for students to share their solutions and implementation plans with the entire class. This provides students with the opportunity to "sell their idea" and receive additional input from class members.

7. INTRODUCTORY ACTIVITIES

Before playing **China Connection** it is helpful for students to discuss their perceptions of China. The information generated in this activity is a great pre-assessment learning tool. This same activity can be done upon conclusion of **China Connection** to determine if students' perception of China has changed.

A. Direct students to write about the following statement: When I think of China, I think of...

Questions to stimulate writing might include - What do the Chinese look like? How do they spend their time? How do they live? What is their government like? What are the significant characteristics concerning their belief system?

B. After students have finished this activity introduce them to **China Connection.** In their groups have them read the background information and information on the four cities they will be visiting. Before they begin playing at the computer have each group discuss the following questions:

1) If you were Chinese how would your life be different? The same?
   How would your life be more restricted? More free?
   What does it mean to have freedom?

2) What gives something value in our society? In Chinese society?

3) What is "progress" in our society? In Chinese society?

4) Who in our society decides how, when, and what changes shall occur? In Chinese society?

5) List some of the problems confronted in our society. In Chinese society. Identify the similarities and differences among the problems.

6) How does population affect a society?

7) Describe communism. How is it different from our government? How is it the same?

8. **HOW TO PLAY**

Students will travel via their guidebook and the computer to four cities in China. The objective is to travel to each of the four cities and to climb the Great Wall before returning to the U.S. Teams need not necessarily compete; the major goal for each team should be to visit all of the cities during the time allowed for play. Typically, **China Connection**, will take five or six class periods.

The game works in this fashion:

Students work in teams of four. Provide each team with the student travel guide which gives a detailed background on China in general and specific information on each of the cities they will visit. The four cities were chosen because each highlights a different geographical region. In addition, they were selected as representative of particular aspects of life in China. Beijing is the seat of government and economic policies while Shanghai faces the western world through business and industry. Shanghai is also the cultural center of China and the fashion trendsetter. Lhasa houses ancient religious issues and minorities cultures while Xian is rich in archaeology, anthropology and history. Each student should select one city as his/her area of expertise. Teams can decide who is responsible for what city. Information on each of the cities consists of historical significance, social customs, language and sights to see. All students will be responsible for the general background information on China. Each team will also have a travel journal in which they will write out solutions to China Problems as well as keeping track of their travel budget. Each team will be given 2000 yuan to help them get around China. They must keep track of that budget in the designated place in their travel journal.

To Play: As a team, students decide the direction in which they will travel. They can go either east in a circular fashion around China or Southwest. Next, select the order in which teams will play at the computer. While one team plays at the computer, the other teams, initially, will be reviewing their background information. Once the game gets started the other teams will be working on assigned problems, challenges and tasks.

When each team moves to the computer, the menu will appear followed by a map of China locating each of the cities they will visit. Students select the city of their choice. A map of that city will appear illustrating major tourist attractions and points of interest in that city. Students will encounter a number of activities at the computer while visiting each city:

1) A Connection Question: This question requires that students demonstrate synthesis of the general background information on China and the specific information on their particular city. Students must formulate responses as complete sentences to be typed into the computer and should avoid guessing. Students must answer this question correctly before they move on. However, if they answer the question incorrectly, the following problem will appear on the screen.

2) Chinese Guide Transactions: A graphic of a Chinese guide will appear. The guide will demand a set fee for solving their connection question. Students must subtract that fee from their travel budget which they must keep track of in their travel journal.

3) Travelers' Dilemmas: These problems are designed to simulate the sorts of unforeseen circumstances which travelers often encounter while in foreign countries. Educationally, these problems have been included to help students develop brainstorming skills. When the dilemma appears on the screen, students must generate eight possible solutions which they type into the computer over a two minute period. Their solutions will not be evaluated in terms of quality; the main objective is to encourage fluency. If students do not generate eight answers, another **Chinese Guide Transaction** will appear on the screen. Students must pay the fee set by the guide before they can move on.

4) A China Problem: For each city three problems of national significance will appear on the computer screen. Students decide as a team which problem they would like to work on. They then return to the menu and call for a print out of that problem. Once they have their problem, they return to their desks to work out a possible solution. These solutions will be written in their travel journals.

5) Random Face Problems: While at the computer random **Face Problems** may appear. These problems will give students an increased awareness of Chinese customs and the cultural differences between our two countries. The **Face Problems** will either add to or subtract from student travel budgets.

6) Earning More Yuan Tasks: In the event that students' budgets are depleted, they must return to the menu to access **Earning More Yuan Tasks.** Students must copy the pinyin phrase down quickly and return to their desk to translate that phrase into English. Payment for that task will be included with the phrase on the computer screen.

9. CHINA PROBLEM - EVALUATING STUDENTS WORK

The following is an evaluation method to determine the quality of students solutions in terms of creative thinking.

Fluency	Give one point for each of the solutions generated. Give one point for each of the ideas generated for implementing the solution. Total up the number of responses for the fluency score.
Flexibility	Categorize students responses of the solutions generated Total the number of categories for their flexibility score.

Originality — Give five points to any original solutions. This is a subjective judgement based on the evaluator; however, you may choose to give five points to those ideas that no other group generated.

Elaboration — Read over the solution and implementation plans. Do they address the who, what, when, where, why, and how? If so give additional details, give one point for each additional idea.

Student Self Evaluation

Name_____

Group_____ _____

1. Describe any problems that arose while working in your group.

2. How did you group resolve the problem(s)?

3. List most important things you learned from playing China Connection.

4. Describe how you used creativity while playing China Connection.

5. Choose one of the problems your group solved. Evaluate it according to the following criteria:

   a. Is it a creative solution? Why?

   b. How could the solution be improved?

Section III

CHINA CONNECTION GUIDE BOOK

Table of Contents

Student Travel Guide Book Includes:

FROM THE STUDENT TRAVEL GUIDEBOOK: GENERAL BACKGROUND INFORMATION ON CHINA

HISTORY

China's history is so ancient that it is difficult for westerners to comprehend. While two thousand years seems terribly long to us, Chinese history can be traced back three millenia, beginning more than 2,000 years before the birth of Jesus Christ. Imagine how such a long and rich history must affect the Chinese concept of time! China is the only survivor of the great early civilizations which says a good deal about Chinese adaptability.

From the Xia Dynasty (2205-1766 B.C.) until the end of the Qing Dynasty in 1911, China was ruled by an imperial government headed by an emperor who was followed by his sons. While the ruling imperial families were overthrown frequently, and boundaries grew greater and smaller often, new emperors always established themselves quickly so that the form of government did not change radically until just recently.

The emperor was called the Son of Heaven and was considered a religious leader and a moral guide. He ruled the kingdom from his imperial palace. The location of the ruling city changed a number of times according to the ruling dynasty's preference.

Notable Accomplishments during China's long history:

Chou Dynasty (1027-256 B.C.)
China's three great philosophers lived during this time. Confuscius, a great scholar, taught the Chinese a way to live an excellent life through the five relationships. These were: 1) ruler to subject; 2) elder brother to younger brother; 3) father to son; 4) husband to wife; 5) elder to younger. In all cases the elder or the head of the state should be obeyed with humility. Those with the responsibility of ruling should treat those depending on him with respect and kindness. These teachings of Confuscius influenced Chinese thought for centuries.

Qin Dynasty (221-206 B.C.)
The Chinese empire was unified for the first time. Civil and military governors were appointed to rule over widespread regions. Roads were built; writing, coins, weights and measures were standardized throughout the land. The Great Wall was started in an attempt to protect the Chinese against Northern invaders.

It was during this dynasty that the emperor Quin Shi Huangdi built his incredible tomb outside the city of Xian. You can now visit the 8,000 life sized terra cotta warriors who have been guarding his tomb for 2000 years.

Han Dynasty (206 B.C.-220 A.D.)
Agriculture was more fully developed through use of iron tools and better irrigation. The Silk Road, a trade route, allowed for trade with central Asia. China became famous for her silks throughout the world. It is believed that the Chinese guarded the secret of silk spinning and weaving for nearly 3,000 years before both silk worms and mulberry bushes were smuggled out along the Silk Road about three hundred years after the Silk Road opened. Anyone attempting to smuggle silk worms out of China was instantly put to death, so the smugglers took a big risk.

Sui Dynasty (589-618 A.D.)

The Grand Canal which links central China and the Yellow River to the lower Yangtze was begun. This canal still provides a main route for shipping goods in China. While sailing on the Grand Canal, you can watch fishermen unfurl large fishing nets for shrimp or lower giant star shaped nets which catch fish. Today, many people live in their boats which look much like the early trading junks used during the Sui dynasty.

Tang Dynasty (618-907 A.D.)

During this period, the capital of China was moved to Xian and was one of the most powerful governments in the world. China's culture blossomed: music, dancing and theatre developed; classical landscape painting achieved great heights; beautiful ceramic pottery was made. The civil service examination system based on Confucian thought and other Chinese classics developed. It is reported that a Buddhist missionary from India named Bodhodharma came to China during this period. He fell asleep while meditating and was furious with himself when he awakened. He cut off his eyelids and threw them to the ground and they turned into tea bushes. After this, tea became a widespread drink in China which helped to keep people awake.

Five Dynasties and Ten Kingdoms (907-960 A.D.)

It was during this era that a terrible period of warring occurred. Still, the first printing press was made and paper money was introduced.

Song Dynasty (960-1276 A.D.)

During the constant threat of invasion by northern barbarians, artistic life flourished again. Great poetry was written, beautiful porcelain, ceramic pottery and painting were produced! And a new form of literature was created called the novel. The printing press advanced in its technology—movable pieces were formed; consequently, far greater numbers of books could be printed for the Chinese to read. Gunpowder was first used for military purposes during this period. However, it was probably discovered much earlier as fireworks had been used for two hundred years. Gunpowder didn't reach the western world for another three hundred years.

Yuan Dynasty (1280-1368 A.D.)

This dynasty was established by Ghenghis Khan and his son, Kublai Khan, Mongolians from the Northeast. For the first time, China was ruled by foreigners. The Silk Road was reopened and traders poured into China to do business. Marco Polo shared western ideas with Kublai Khan and took amazing tales of China back to the west. It is through Marco Polo that the western world heard of paper money, the printing press and the other wonders of China!

Qing Dynasty (1644-1911 A.D.)

Manchurians from the north established this dynasty which flourished until the early 19th century. Europeans wishing to trade with China to purchase silks, spices and artwork forced her to buy opium to balance the trading. Japan was advancing and the British forced China to open several more trade ports. The Chinese rebelled and attacked the foreign quarter in Beijing in the Boxer Rebellion. The Qing Dynasty finally crumbled in 1911.

1911-1949

From 1911-1949 China underwent a number of revolutions, invasions and a great deal of internal strife. Sun Yatsen attempted to establish a democracy, called the Guomindang with support from the United States. After Sun Yatsen's death, Chiang Kaishek lost the nationalist movement to the Communists. When the nationalist movement was defeated, Chiang Kaisheck fled to Taiwan and established a Chinese democracy there.

1949--The People's Republic of China

Under the leadership of Mao Zedong, a communist government was established in 1949. For the first ten years, China established a socialist society modeled on the Soviet Union. During the Great Leap Forward in 1958-59, the Chinese attempted to establish their own form of communism and the Soviet Union withdrew their aid.

1966-1976 The Cultural Revolution

Mao, afraid that China was reverting toward old imperial tendencies, encouraged the youth of the country to revolt. Those youth who formed military ranks called the Red Guards threw the country into confusion and war again. Intellectuals were persecuted and public education stopped. Order was re-established in the late sixties.

China Today

The country is now engaged in a comprehensive push to modernize science and technology, industry, agriculture and defense. Public education, health care programs, improved living conditions have been established. Current leaders in China are attempting to establish a form of communism which supports equality for the masses while allowing individuals to engage in free enterprise. If this merging of two opposite philosophies is successful a new form of government will evolve. China looks frequently to the United States for guidance and expertise.

EDUCATION

The Ancient Examination System

China's educational system has undergone a series of dramatic changes since the early 1900's. However, education has long been very important to the Chinese. During imperial rule, state schools existed to prepare young men for governmental service. Students studied Confucian thought, literature and law. They then sat for days at a time in little box-like cubical houses isolated from interaction with other students taking extensive and rigorous exams. Because of the volume of information they were to memorize, many students wore jackets covered with notes on Confucian thought, or imperial policy--the equivalent of a cheat sheet. Men who passed these difficult exams were then put into the emperor's service--often achieving great wealth and fame. Under this system, only a very small percentage of the population was granted any kind of formal education.

Education under Mao

Mao Zedong, the founder of the People's Republic of China, believed that education is the key to achieving wealth and power. He believed that education must serve three purposes: 1) to further the economic growth of the country; 2) to serve the social revolution by eliminating the three differences between city and country, worker and peasant, and mental and manual labor; and 3) to create the New Man motivated by love of the collective interest rather than selfish ambition. In order to accomplish these goals Mao shipped urban youths out into the country to work in the fields and country youth into the cities in order to equalize opportunity. He placed a heavy emphasis on manual labor and political study. Students were given copies of The Little Red Book, which contained Mao's sayings and were expected to memorize it.

During the Cultural Revolution, when the Red Guards were encouraged to criticize the government, schools were severely criticized probably as a result of age old resentment for the wealth and power held by the educated population. For ten years from 1966 through 1976 all colleges were closed as well as many middle schools. This closure created a whole generation of school age students who have had little or no schooling.

Since Mao

China's educational policies have refocused on academics. The number of schools has increased as well as the numbers of students in schools. China's schools are set up in the following fashion:

Primary School

Ninety-five percent of Chinese children now enter primary school. Primary school consists of five years of study, eight hours a day, five-and-a-half days a week. Students study politics, science, art, reading and writing, sports and in some cases, a foreign language. Only about sixty percent of the students who enter primary school finish--often times because they are needed to work in the fields.

Middle School

Students attend three years of junior middle school and two years of senior middle school. Schools are open eight hours a day, five-and-a-half days a week for ten months. Students study politics, history, geography, science, math, English and P.E. Classes are much larger than in the U.S. and competition is very steep. Only about 50% of the students complete middle school. In order to go to college, students must pass difficult examinations. These exams total twelve-and-a-half hours and cover six subjects over a period of three days.

There is only room for about five percent of the college age population in China's universities which makes these examinations even more competitive.

A Chinese School

Chinese schools are much different from American schools. Walls are often covered with peeling white plaster, with old chipped black blackboards. There are no bookshelves, no audio visual equipment, no cafeteria, no student stores and certainly, no student parking lot.

Because of the fierce competition to get into college, students study long hours—often beginning at 5:30 a.m. Much of the learning is done by lecture and students must memorize a good deal. There are no elective subjects and history books only cover the years up to 1949. (The party has not yet written more recent history.) While traveling in China you will notice numbers of young people studying under street lights until late at night.

Specialized Education

Because China has limited resources, especially talented students are often sent to "key" schools. For instance, an excellent athlete may be given a reduced academic load so that s/he spends only mornings in school. The rest of the day is spent training. Athletes are often given extra food rations, their uniforms and a modest salary of 40 or 50 yuan once they reach seventeen. All specialty trained students have one great privilege—they are allowed to travel around China.

Children's Palaces

After school programs in music, art, calligraphy, embroidery, model building, mathematics and electronics are also available to talented students. In cases of extreme talent, sessions at the Children's Palace are free. Often times parents have to make payments from their limited incomes. Children's Palaces are bright lively places which resound with music, humming machinery, and singing.

FROM THE STUDENT TRAVEL GUIDEBOOK: THE CITIES

SHANGHAI

Shanghai is a huge city--one of the ten largest in the world and certainly, China's most populated city. Eleven million people live in Shanghai so that the streets are always bustling with bicycles, throngs of pedestrians while cars, trucks and buses weave in and out. More than 100,000 people live in each square mile--more than ten times the population density of New York.

More than any other city in China, Shanghai looks like a western port. The buiidings are large bank-like buildings much like those in any major U.S. city. The streets are lined with lovely french poplar trees which make the city seem park-like and fresh in the summer. Shanghai appears more westernized because it was long the center for western trading. Distinct quarters of the city were inhabited by French, English and American traders and their families who built large homes like those they had in their homelands. These homes, estates and hotels have now been returned to the government and house scores of families or local businesses.

History

Shanghai's history is relatively brief compared to other cities in China. For many centuries it was an undistinguished fishing village built atop mud flats. Between 1260-1378, during the Mongolian Yuan Dynasty, Shanghai became a center for processing cotton as a result of innovative spinning and weaving techniques introduced by Wang Daoba, a Shanghainese woman. After the western world discovered China's silk, Shanghai became an important trading center, and by the 1800's, 50,000 people lived there.

By the mid-nineteenth century, the city had grown by leaps and bounds due to the arrival of many westerners who wished to trade with China. For the next 50 to 60 years, Shanghai became a significant port visited by people from all corners of the earth--a city wild, strange and exotic.

There was a marked contrast between the living conditions between the foreigners and the Chinese. The westerners lived in their large mansions while the Chinese were crammed into the old city--a rabbit warren of shacks and congested hovels. Because of the disparity in lifestyles, westerners did not dare to set foot in the Old City.

It is probably because of this horrible contrast in living conditions that the communist party was formed in Shanghai. The Chinese simply had enough of poverty while watching wealthy foreigners and Chinese nobility live in splendor. Eventually, the Communist party successfully took over the country in 1949 after the Japanese occupied Shanghai during the Sino-Japanese War (1937-45).

Industry

Today Shanghai is still China's leading industrial center producing iron, steel, chemicals, and building motor vehicles, heavy machinery and ships. Shanghai's factories account for 1/8 of the countries industry and produces 1/4 of all the exports which leave the country. Productivity is higher in Shanghai than anywhere else in China.

Like other large industrial cities in the world, Shanghai suffers from high pollution. Besides industrial pollution, the Chinese people cook on small braziers and burn coal both for cooking and for heating their homes. There are days when the air is tinged pink or grey from the suspended coal ash.

Fashion

Shanghai, more than any other city in China, is the center for high fashion. Large department stores like Wingon are packed with shoppers buying blue jeans, dresses in bright colors with matching bobby socks and patent leather sandals. One notices that the women wear more make-up, have more fashionable hair cuts and that there are fewer Chinese dressed in the government issued blue and grey Mao jacket and pants.

The Arts

There are sixteen performing art troupes in Shanghai ranging from the famous Shanghai acrobats who have toured the U.S. several times to opera, ballet, the symphony, a circus featuring trained panda bears and a new less-traditional theatre group which stages plays written by contemporary playwrights. In addition, China's four film and television stations are housed in Shanghai. The most popular television show is a half hour show on how to speak English! Chinese movies feature war stories and clashes between the Chinese and invaders. American movies when available are extremely popular, but carefully screened. The Chinese do not allow 'R' rated movies.

Places to Visit

The Bund or Zhongshan Road is a wide, tree lined avenue that runs along the Wusong River. Across from the river are great, old European style buildings where the foreign powers--the U.S., Britian, Japan once housed their business. Now owned by the Chinese, these buildings are used for many purposes. The Peace Hotel, once the famous Cathay Hotel, is nearby should visitors crave a hot fudge sundae (hard to find in China) or want to dance to a 1930's group of Chinese musicians (The bar and the dancing is restricted to foreigners and overseas Chinese; local Chinese are not allowed). Walking along the Bund, both the street and the river throb with traffic. In the early morning one can watch the Chinese quietly exercising; in the evening, lovers stroll hand in hand--something very seldom seen elsewhere in China--and youngsters flock around foreigners to practice speaking English or German or Japanese.

Peoples's Park and People's Square This park covers a full square mile in the heart of the city. The area was originally designed by a foreigner who traced a large oval on horseback with a sword and then bought up everything within it, including the farmlands and buildings! Here he built a park and a race course. The racetrack has since been replaced with lawns, ponds, and tree-shaded walkways. Parks are very important to the Chinese people. They use the parks for exercising, Tai Chi, practicing musical instruments and relaxation.

Shanghai Museum of Art and History This museum houses one of the finest art collections in China. It contains bronzes from the Shang (c.1523-1027 B.C.) dynasties. Bronze objects on display include tools, weapons, food and wine vessels and mirrors. It includes examples of "black pottery" and a life size terra cotta statues of a horse and two warriors. These figures are the first of an estimated 10,000 figures to be excavated. They were found in the gigantic tomb of the Emperor Qin Shi Hugandi (c. 221-206 B.C.) in Xian. Also on display are objects from the Han, Sui and Tang dynasties including oil lamps, intricate head rests and vases and a collection of tools used in the arts of painting and calligraphy. Upstairs one can see a beautiful collection of scrolls from the Tong, Song, Yuan, Ming and Quing dynasties.

Jade Buddha Temple This temple is famous for its two rare statues of Buddha carved out of a single piece of white jade. Buddha (563-483 B.C.) was regarded as a teacher possessing perfect enlightenment and wisdom. He was the founder of Buddhism, a religion based on his teachings. Buddhism developed in the 500's B.C., in northern India and spread over central, southeastern and eastern Asia. One of the white jade statues represents Buddha at the moment of his enlightenment, and the other as he is passing into Nirvana, a heaven-like state. The two statues came from Burma brought by a Chinese monk in 1890. Worshippers still attend services at the temple but many are older or from overseas.

Shanghai Industrial Exhibition This large exhibition hall was built by the Soviets in the early 1950's. It was originally called the Palace of Sino-Soviet Friendship. Industrial and consumer products are on display, including mechanical rice harvesters and grinding machines.

Children's Palaces Children between the ages of 7-17 who show particular strengths in dance, music, mathematics or mechanics receive special training at the children's palaces. Instruction is provided by leading professional artists. There are eleven palaces in Shanghai. The concept was initiated in the Soviet Union and was promoted in China by Song Qingling, Dr. Sun Yatsen's widow, who held high positions in the government until her death in 1981.

The Garden of Happiness (Yu Yuan) Near the old section of Shanghai, this beautiful garden was built in 1577 by a city official name Panyuduan who wished to build the perfect spot for his father's old age. Built according to the traditions of Chinese gardening, limited space was used to mirror idyllic scenes found in nature. Designed to find a balance between rockeries, buildings and water, Chinese gardens look nothing like American gardens, and yet they are lovely, restful places to wander. This garden is hidden behind high carved brick walls decorated with huge stone dragons. A small lake is spanned by a magnificent zigzag bridge and surrounded by teahouses, pavilions, rockeries, goldfish ponds and small, simulated hills. The garden is a delightful place to have lunch or simply to sit and people-watch.

Old Town The oldest part of Shanghai is now a marvelous maze of alleys lined by crowded Chinese dwellings and markets. While walking in the early morning or early evening, one can watch the Chinese socializing on old wooden lounge chairs, playing Chinese checkers, bathing the children in big old wooden wash tubs, doing laundry, cooking, eating, or skinning live eels for supper. It is a fascinating glimpse of Chinese urban life--but visitors must be careful; it's very easy to get lost.

Section IV

FROM THE COMPUTER

1. CHINA CONNECTION MENU

    1. Map of China
    2. City Maps
    3. Travel Budget
    4. Currency Exchange Rate
    5. Historical Timeline
    6. Pinyin Alphabet
    7. Earning More Yuan
    8. Problem Solving Tasks
    9. Problem Solving Task Printout

2. CONNECTION QUESTION: SHANGHAI

    1. Explain why Shanghai is important to China.
    2. Why might the Communist party have started in Shanghai?
    3. What do people in Shanghai do for recreation?

3. CHINESE GUIDE TRANSACTION

If the students' response to Connection question 1 was: "The government is located there", a graphic of a Chinese Guide would appear on the screen. The guide demands 50 yuan to straighten them out. Shanghai is important as a trade port, an industrial leader, an arts center, but is not the seat of government.

4. TRAVELER'S DILEMMAS: SHANGHAI

    1. You are at the Xinya Restaurant, famous for its Guangzhou province cuisine. You do not have enough yuan to pay the bill. The Chinese restaurant owners cannot accept travelers checks. Brainstorm a list of eight solutions over the next two minutes.
    2. You want to buy a tape of marching music. You are in a music store. No one can speak English and you don't speak Chinese. Brainstorm eight possible solutions. You have two minutes before the store closes.

5. **CHINA PROBLEM FROM SHANGHAI**

Increased Population

Living conditions in Shanghai are very congested. In thirty years the city's population increased from five million people to 11.4 million.

There are 100,000 people per square mile in the downtown area, ten times that of New York City. Today it is very difficult to get a ticket to the opera or the acrobatics. On Sundays, outdoor recreational places like the zoo and parks are so crowded you can't find a place to sit. Previously, the Chinese people were restricted as to where they could live. During the Cultural Revolution many people were shipped from the cities to the country to help with food production. Under the current government this restriction has been lifted. Major cities throughout China are experiencing a great influx of people. Shanghai, because of it's recognition as a business/industry and cultural center is experiencing a mass migration of people moving to the already crowded city. The large population increase anticipated in Shanghai is doubly compounded by the fact that for thirty-one years there was no city-wide urban development plan. In certain parts of Shanghai housing, sewage and transportation are a disaster. How might city officials prepare for this increased population?

6. **FACE PROBLEMS**

Face Problems can take two forms:

A. No answer required--simply take-what-you-get-problems like:

1. You ate your entire lunch while dining with the minister for museum acquisitions. At home, you would have been praised for cleaning your plate, but in China, it caused your host to lose face. By eating everything, you indicated that he did not feed you enough and therefore was not truly hospitable. One should always leave a little something on one's plate while in China.

In order to regain **Face**, you must take the minister and all of his co-workers for dinner which costs 78 yuan. Subtract this amount from your budget.

2. You plugged your hair dryer into a Chinese socket with a transformer but not a converter and your hair dryer blew up. Pay 110 yuan for a new hair dryer.

OR

B. The answer requires a brief response:

You put your blue jeans in the laundry bag in your hotel room with all of your roommate's clothes. Unfortunately, your jeans dyed everything a dull blue. You are furious and race down to the laundry. How do you suggest the problem might best be solved?

Answer A

Students may answer: you scream at the laundry people and tell them they have to replace your clothes.

The computer response: Wrong. While you may receive monetary compensation, American clothes are not available in China. Your screaming fit will cause you to lose face in the eyes of the Chinese. Deduct 28 yuan from your budget to purchase several cotton shirts for you and your roommate.

Answer B

Students may answer: You inform the launderers that you're terribly sorry that you forgot to mention that jeans often discolor the rest of the laundry. Therefore, next time they see jeans, they may wish to wash them separately.

Computer Response: Because you were so kind in sharing that information with your hotel launderers, they bought you several lovely silk shirts to replace those which were discolored. Everybody gains face.

Earning More Yuan Tasks

Ch'iao-fu nan wei wu mi chih ch'ui: Even a clever housewife cannot cook without rice--you can't make bricks without straw.

Chih pao-pu-chu huo: You can't wrap fire in paper—there is no concealing the truth.

I ko pa-chang p'ai-pu-hsiang: You cannot clap with one hand-- it takes two to make a quarrel.

Play at the Computer

The menu comes up and a map of China appears with the cities to be visited highlighted. Students type in the ter representing the city they will travel to next. A city map appears locating the high points of interest at the city the students will visit. Major focal points are indicated on the map.

1. A connection question appears on the screen. Students type in a response. If correct, students move on to **Traveler's Dilemma.** If incorrect a Chinese guide appears requiring a set fee to answer the connection question correctly. At any time throughout the question/answer period a random **Face Problem** may appear announced by a graphic of a Chinese Opera mask. On the screen appears a brief scenario in which students either gain or lose face. Depending upon their response they either add or subtract from their travel budget. If students travel budget is depleted students will need to return to the menu to access **Earning More Yuan Tasks.** A Chinese sentence or phrase appears in Pinyan. Students record the phrase and return to their desks to translate. Play only resumes when they have completed the translation task.

2. **Traveler's Dilemma** In each city a brainstorming task appears, which is a travelers problem. Students will have two minutes to generate eight responses which they type into the computer. If they fail to generate eight responses, they must pay a Chinese Guide Transaction Fee.

3. **Three China Problems** appear on the screen for three minutes. Students refer back to the menu to receive a print out of the problems. Students take the problems back to their desks to ascertain which they'll work on and the next team proceeds to the computer.