

A MOUNTAIN RESORT ABOVE CHIENG-MAI, THAILAND

by 6791

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I. GENERAL VIEW OF THAILAND

Thailand, once known as Siam, is an independent country in southeast Asia. The territory of 197,659 sq. miles lies 5° 37' - 20° 27' N. Lat. and 97° 22' - 105° 37' Long. The surrounding countries are Burma to the north and northwest, Laos to the north and northeast, Cambodia to the east and Malaysia to the south. The rest of the boundary is seashore: The Gulf of Siam to the southeast and Andaman Sea to the southwest. The greatest east-west extent is about 480 miles and the north-south one is about 1000 miles.

Climate

The country is located in the area affected by the tropical monsoon climate. The climate is greatly influenced by winds from different directions in different times of the year. The rainy season begins in May and lasts to October. During the season winds from the southwest bring a good amount of rain to all parts of the country. From October to February winds from the northeast create the dry and cool weather in most parts of the country except in the area along the east coast of the peninsula because the area receives the full force of northeast winds which carry warmth and moisture from the Gulf of Siam. During this season, the temperature drops down to around 65°F and even lower in the elevated interior north section of the country. The temperature rises up to about 100 °F

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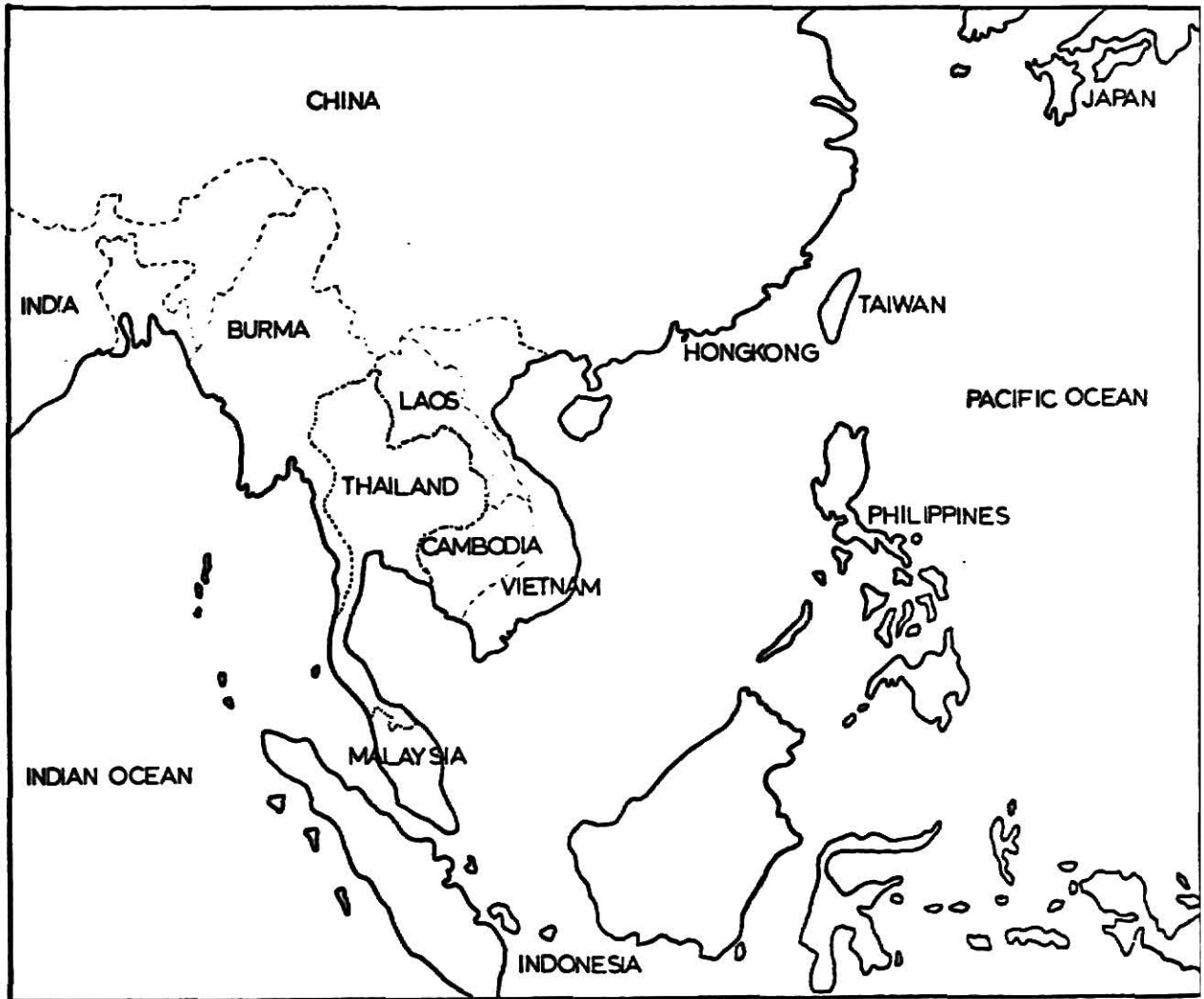


FIG. 1.-- MAP OF SOUTH EAST ASIA

during the hot season, from February to May. The northwest winds lose their force and, again, except on the southern peninsula, the dry and hot conditions prevail until the return of southwest monsoons. It should be mentioned that the southern peninsula area has rainfall every month of the year, since the winds usually carry a good amount of moisture from the surrounding seas.

Regions

Since they are different in topography, climate and human activities, the four regions of Thailand will be described individually.

The northern part of Thailand is an area of 3,500 sq. miles between the Salween and Mekong Rivers and north of 180° N. Lat. The shrinking of the earth's surface has created limestone ranges paralleling the longitude line. The central part of the area is drained by four major tributaries of the Chaopraya River. Teak is the chief export of the region, rice, silk, tobacco, and sugar cane also produce good profits. The major city in the region is Chiangmai with a population of 75,715. Other important cities are Ching-Rai, Lanmpang, Tak, and Pissulok.

The northeastern part is flat-sandstone and shale land of 6,300 sq. miles. Poor soil and unreliable rainfall handicap its development even though the elevation of the land is considered low. Most crops including rice, corn, cotton, tobacco and mulberries are grown under irrigation.

PLATE II

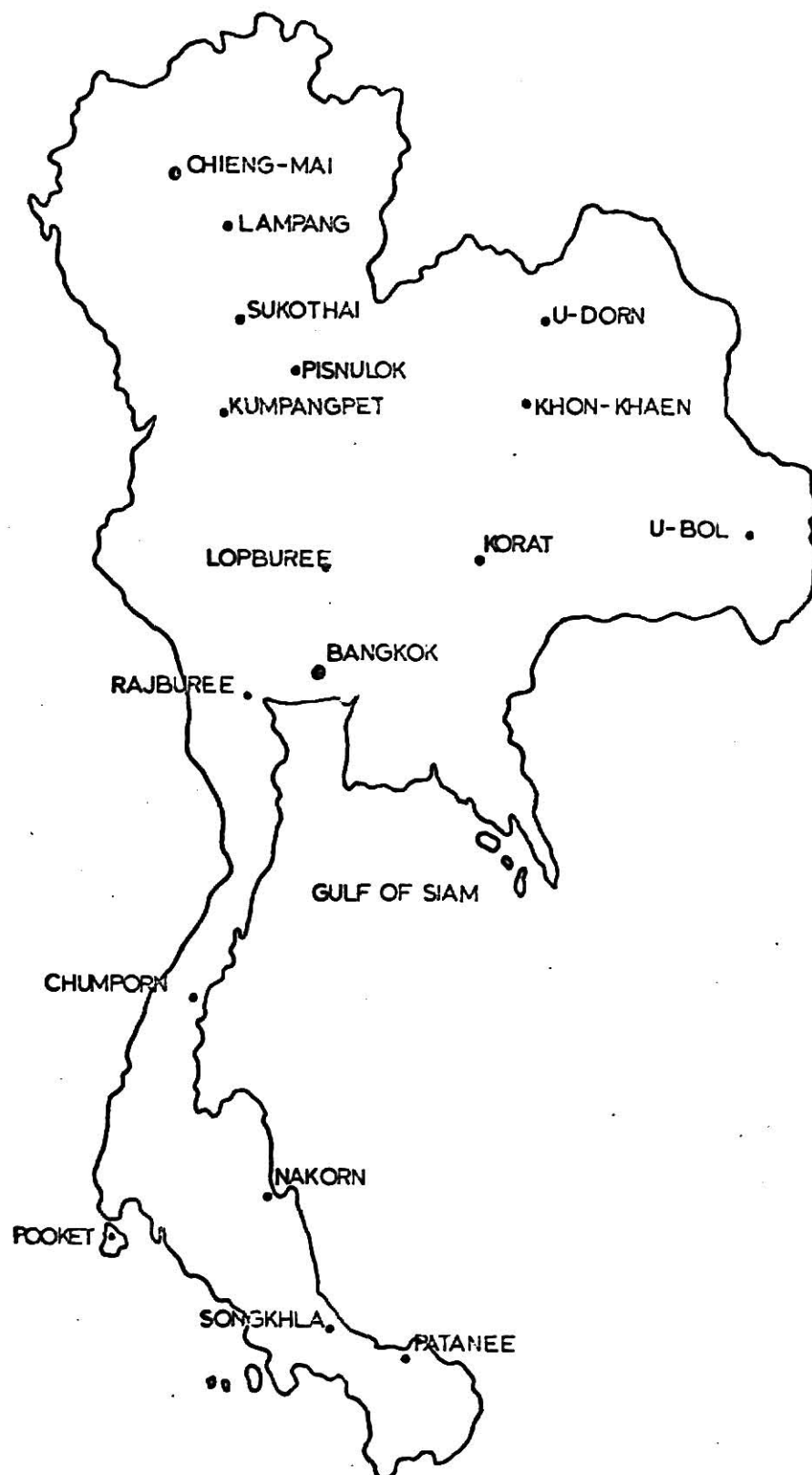


FIG. 2.-- MAP OF THAILAND

The raising of cattle, hogs, buffaloes, and horses, which are obviously more important than the agricultural crops, provides the export items from this region. The main cities in the area include Nakorn Rajsima or Korat, center of silk weaving industries, Ubonrajtani, and Nongkhai.

The central basin is the nucleus of the country in terms of population and economic productivity. The area of 70,000 sq. miles, including the southern portion of the Chaopraya Valley, the Valley of the Maeklong and the coastal area of the southeast, is one of alluvial plains surrounded by hills. The difference in elevations of the land from the southern edge to the northern region (18° N. Lat.) to the sea is about 150 feet. The land is very productive in agriculture; about 15% is under cultivation, for the most part in rice fields. The major city is Bangkok, the capital and chief port of the country, with a population of 157,700 people.*

The peninsular region of about 2800 sq. miles lies within the Malay Peninsular. Thailand, with low mountains lying along the length, has all year rainfall and pleasant weather most of the time because the sea breeze calms down its extreme temperatures. Only 7% of the land is cultivated, mainly for the production of rice, rubber, and coconuts, but it is also the locale of the principal mineral deposits

* 1960 census

of the country. Tin is the chief mineral followed by tungsten, lead and coal. The chief city of the area is Nahorn Srithamaraj.

History

The Thai people originated in the waste region of Southeast China, south of the Yangtze Valley, where they founded the independent kingdom of Nanchao in 650 A.D. In 1353, Kublai Khan's army conquered Nanchao and a mass migration took place southward into the area which is Thailand at the present time. The Thai migrants settled in the fertile Chaopraya River Valley where they founded Sukothai, capital city of the first Thai kingdom. The city has rightly been named the "cradle of Thai Civilization." The most important Sukothai ruler was King Ram-Kamhaeng, a national hero who introduced the Thai alphabet.

In 1350, King Ramathipdi founded a new dynasty and established his capital at Ayudthaya; thirty-three kings have ruled there in the following 417 years until Ayutthaya fell to Burmese in 1767 when it was almost totally destroyed. A general, Praya Tak-sin, managed to escape with some five hundred soldiers, and within a year he was successful in uniting different groups of Thai people, and raising a force sufficiently strong to drive the invader out of Ayutthaya. After being crowned, he ruled in a new capital at Thonburi, which is now the twin city of Bangkok. King Taksin was succeeded by one of his generals, Chaopraya Cahkri,

founder of the present Chakri Dynasty, who, as King Rama I, established his capital at Bangkok in 1782. The present monarch, H.M. King Bhumipol Adulyadeu, is the ninth king of the Chakri dynasty.

The People

Thailand, with a population of about thirty million (1969), is densely populated in comparison with many other countries of the east. The density varies from less than 12 persons per square mile in some northern provinces to more than 500 in Bangkok which is the most densely populated city. The Thai group of people, 94% of total, is the main portion of the population. The largest minority group is the Chinese group, about 2.8%. The rest of the distinguished groups are Moslem Malays who live mainly in the southern peninsula, Cambodians, Vietnamese, Shans, and Burmeses and tribesmen who usually live on the mountains in the south and west, but mainly in the north.

The typical Thai is of medium height, 1.70 meters in height for average males, and has an olive complexion, dark, almost black, eyes and hair, broad flat nose, prominent lips, and a face that is wide across the cheek bones.

Culture and Religion

The traditional occupation of Thai people is agriculture. They have lived relatively like their neighbors on the mainland of Southeast Asia, in an underpopulated but fertile land.

Though the life of the farming people is at times arduous, there is still ample time left for them to enjoy their leisure time.

Socially, the Thais, to a certain extent, remain village-centered people. They are public-minded as far as their village is concerned. They work and help one another in times of need and enjoy their social life together.

Buddhism is predominant in this country (93.6% in 1960). There are about one million Muslims, 460,000 Confucianists, 150,000 Christians of various denominations and many small groups of people having other religions and beliefs. Traditionally, young male Buddhists, regardless of their social status, are supposed to spend a minimum period of three months as monks, usually during Buddhist Lent.

Feasts and festivals observed by the Thai Buddhists are mainly religious and are connected with the changing seasons. The Wat or monastery, is the center of social meetings. All the traditional arts and literature of the Thais are essentially religious in nature and most of them are dedicated to Buddhism.

Thai people have their own language, the Thai language, and the Thai alphabet known as Thai. Though Thai is the official language and is used most of the time, many inhabitants of the main cities also speak and understand English, the second official language, especially for those whose profession brings them into frequent contact with westerners.

Western civilization has had some influence on the Thai culture, though not to a very noticeable extent. Thai people have been able to maintain the great proportion of the heritage handed down from generation to generation such as, for example, their deep respect for the elders, traditional music, art and literature, their complete devotion and respect to the throne, and their strong sense of freedom.

Government

Politically, Thailand is a constitutional monarchy, with the sovereign power emanating from the people themselves. Like the English, the Thai people have preserved their ancient traditions through their King. At the same time, they enjoy all the important features of a modern, democratic government, including free elections, through a constitution, a legislative body and a government headed by a prime minister.

Trade and Industry

To diversify her economy, Thailand, traditionally an agricultural country, has recently increased her manufacturing. Agriculture, forestry and fishing, however, are still the occupations of 80% of the population. The policy of the present government is to encourage private investments, and it is noticeable that a considerable number of foreign manufacturers have opened up factories and still more are opening up branch offices in Thailand.

II. THE DEVELOPMENT OF TOURIST INDUSTRY IN THAILAND

Background

Thailand, with her very unique characteristics, is one of the attractive countries which should be able to secure a lot of profit from the tourist industry. Some of the outstanding characteristics belonging to Thailand and the Thai people are mentioned below: The friendliness of the people, their culture in music, drama, art, and architecture, and furthermore, their oriental atmosphere which is different from that of all other countries in Southeast Asia.

Major transportation systems are ready to bring people from all over the world to visit Thailand. Bangkok, the capital, and the major port of the country, is the location for the central air terminal of Southeast Asia. Twenty-five international airlines (1966) are scheduled to stop at the terminal. Many sea port cities are found along miles of the seashore boundary line. Transportation on roads and railroads can conveniently bring people from almost every direction to Bangkok, the heart of the country.

Thailand, being one of the developing countries, needs a strong financial support for her development and tourist expenditures is considered one of the major benefits for the country. When tourist industry was not satisfactorily growing, a study showed that this situation was caused by two main problems. The first problem was that those who

TABLE 1
COMPARISON OF TOURIST EXPENDITURE AND
OTHER EXPORTS OF THAILAND

1964			1965			1966			1967		
Rank	Exports	Millions of baht	Rank	Exports	Millions of baht	Rank	Exports	Millions of baht	Rank	Exports	Millions of baht
1	Rice	4,461	1	Rice	4,376	1	Rice	4,021	1	Rice	4,672
2	Rubber	2,060	2	Rubber	1,998	2	Rubber	1,860	2	Tin	1,817
3	Maize	1,361	3	Tin	1,166	3	Jute-kenaf	1,653	3	Rubber	1,570
4	Tin	961	4	Jute-kenaf	1,120	4	Maize	1,530	4	Maize	1,356
5	Tapioca	666	5	Maize	982	5	Tin	1,316	5	Tourism	952
6	Jute-kenaf	496	6	Tapioca	686	6	Tourism	750	6	Jute-kenaf	885
7	Tourism	430	7	Tourism	506	7	Tapioca	686	7	Tapioca	756
8	Teak	178	8	Teak	400	8	Teak	243	8	Teak	197
9	Kapok	124	9	Beans	118	9	Beans	133	9	Tobacco	126
10	Castor Seed	90	10	Kapok	112	10	Tobacco	113	10	Mung beans	82

SOURCE OF INFORMATION: BANK OF THAILAND, MONTHLY REPORT

FOREIGN VISITORS TO THAILAND, 1968

Countries of Nationality	Air	Land	Sea	Total
OVERSEAS VISITORS				
North America:				
U.S.A.	95,197	6,552	1,843	103,592
Canada	3,993	415	163	4,571
Central America	1,780	2	5	1,787
South America	1,745	74	10	1,829
Europe:				
Austria	1,125	133	11	1,269
Belgium	1,136	79	10	1,225
Denmark	2,729	122	37	2,888
Finland	537	2	—	539
France	8,846	1,474	123	10,443
Greece	722	11	4	737
Germany	14,173	759	152	15,084
Ireland	427	17	1	445
Italy	4,413	100	24	4,537
Luxembourg	66	1	1	68
Netherlands	4,858	153	87	5,098
Norway	1,507	51	35	1,593
Portugal	509	6	1	516
Spain	762	22	14	798
Sweden	3,624	148	26	3,799
Switzerland	6,753	528	91	7,372
U.K.	23,644	2,234	556	26,434
Africa	2,263	5	74	2,342
Middle East	3,228	84	40	3,352
Pacific & Asia:				
Australia	16,138	1,079	177	17,394
China	11,344	1,264	42	12,650
Ceylon	708	14	57	779
India	8,588	1,137	236	9,961
Indonesia	5,878	187	68	6,133
Japan	28,076	2,014	1,458	31,548
Korea	2,322	118	67	2,507
Nepal	990	100	—	1,090
New Zealand	2,634	187	53	2,874
Pakistan	2,857	73	8	2,938
Philippines	7,064	1,039	48	8,151
Others	1,364	121	23	1,508
Total Overseas	272,006	20,305	5,545	297,856
NEIGHBORING VISITORS				
Burma	1,057	3,042	1	4,100
Laos	2,167	16,135	—	18,302
Malaysia	7,994	39,014	227	47,235
Singapore	4,733	2,144	136	7,013
Vietnam	2,406	347	3	2,756
Total	18,357	* 60,692	367	79,406
Grand Total	290,363	80,987	5,912	377,262

Source of information: Statistical Section, Tourist Organization of Thailand

Method of collection: Frontier Check (by Immigration Division, Police-Department).

* Estimated number of Neighbouring Visitors by land for the month of December.

TABLE 3
VISITORS AND VISITOR EXPENDITURE , 1957-1967

YEAR	NUMBER OF VISITORS				VISITORS EXPENDITURE US\$			
	Overseas visitors	Neighboring vis.	Totals	R & R	Overseas visitors	Neighboring visitors	R & R	Totals
1957	44,375	—	44,375	—	5,100,000	—	—	5,100,000
1958	55,210	—	55,210	—	6,700,000	—	—	6,700,000
1959	61,571	—	61,571	—	7,400,000	—	—	7,400,000
1960	81,340	—	81,340	—	9,800,000	—	—	9,800,000
1961	107,754	—	107,754	—	12,500,000	—	—	12,500,000
1962	130,809	—	130,809	—	15,500,000	—	—	15,500,000
1963	134,271	60,805	195,076	—	16,200,000	3,500,000	—	19,700,000
1964	158,588	53,336	211,924	—	14,300,000	7,200,000	—	21,500,000
1965	189,620	35,405	225,025	—	21,800,000	3,500,000	—	25,300,000
1966	207,111	78,006	285,117	33,000	24,100,000	6,800,000	6,800,000	37,500,000
1967	244,283	91,562	335,845	54,000	23,700,000	13,100,000	10,800,000	47,600,000
1968	297,856	79,406	377,626	—	35,100,000	5,900,000	—	—
1969	(Forecast) 342,000	91,000	43,300	—	30,000,000	18,000,000	—	52,000,000

operated tourist business did not offer prompt service to the tourists because of lack of information and lack of people who really knew how to run this kind of business. The second problem was there was not enough advertizing which is a major factor in attracting and interesting tourists.

The Tourist Organization of Thailand

The government, desiring to solve the problems in order to achieve an effective development of the tourist industry, established the tourist organization of Thailand in 1959. The two major objectives of such an action were to help maximize the financial profit from the tourist industry and to help people all over the world to become acquainted with the country and to appreciate its charms.

Activities

According to the bill on founding, the activities of the organization are the following:

1. To promote the tourist industry in order to help the developing nation's economics and to spread the fame of the country in culture, art, customs, dramatics, sports, and any other activities which might interest or attract tourists.
2. To help, advise, and cooperate with private enterprises in forming and operating their tourist business.
3. To survey, develop, restore, and create places which could be considered capable of being made attractive places to visit.
4. To coordinate with other organizations and associations promoting tourist industry either in or out of the country.

5. To operate tourist business in cases that it could not be effectively done by private enterprises or that were assigned to them by the government.
6. To run any other business concerning with and being helpful to the tourist industry of the country.

Together with the trend that more people all over the world spend more time in travelling, the tourist industry in Thailand has been noticeably developing since the organization was established. The income from the tourism which includes the giving out of information and advertising has been a significant part of the national budget ranking approximately one fifth of the export income from rice which is Thailand's largest export. See Table 1, page 11.

Tourist Industrial Development Projects

The tourist organization of Thailand has undertaken some research and has prepared projects for following the steps of the development of the tourist industry of the country.

Statistics show that the numbers of tourists visiting Thailand have been increasing each year, and that it is advisable for Thailand to try to provide more and better facilities, hotels and the like to accomodate tourists. The government has been encouraging private enterprises, both native and foreign, to increase their investments in the hotel business. In order to help businesses, the

government has set up the first-class-hotel standards and has reduced or excused taxes for imported products to be used in hotel construction and operation and income taxes for those who operate the hotels in their beginning years. By these procedures hotel business has attracted more people. The number of first class hotel rooms is satisfactorily increasing and, by use of the correct and practical information given by the tourist organization of Thailand, it is evident the services in the hotels are getting better.

To produce more people who are capable of working in tourist business, the tourist organization of Thailand has encouraged and helped some private academic institutions to establish courses in tourist business, hotel business, tourist guide training, traveling, business management, and some others. Many colleges, and some official colleges, too, are offering these programs for part time or full time study. Chulalongkorn University has had tourist guide training programs since 1962 and in the year of 1966, 685 persons had completed the course.

Besides Bangkok, there are a good number of other cities that are worth visiting. It is important to note that tourist attractions, historic or scenic, are found in different areas all over the country and yet they are different in their aspects and atmospheres. Many of the tourists, once they have arrived in Bangkok, stay only in the capital city and thus have a chance to visit only places

in the area. A few of them, fortunately, have had rewarding experiences visiting some other parts of the country.

The tourist organization of Thailand has studied and the tourist trade and has decided to expand the tourist activities by three procedures. First, the organization will try to improve the tourist attractions all over the country in order to make them ready to welcome the tourists who visit those places which seem to be getting closer to Bangkok because the transportation is getting better. Second, to again encourage private enterprises to provide efficient recreational and accomodational facilities. Third, the organization has been operating two resort hotels, one at the seaside and one in the mountains.

The tourist industry in Thailand is growing satisfactorily and it certainly helps economic development of the country, which, accordingly, is getting to be known and to be understood by more people all over the world.

III. THE CITY OF CHIENG-MAI

One of the most pleasant and beautiful cities of Thailand is Chieng-Mai, the second largest city in the country and, also the central city of the northern region. Surrounded by the mountains, Chieng-Mai is well known for its history, scenery, and the people who can maintain their own admirable culture.

History

The city of Chieng-Mai was founded by King Meng-Rai, son of King Lao-Meng and Queen Tep-Kayai, who was crowned to rule the Yo-Nok Kingdom in 1259. He succeeded in uniting all the cities in the Lanna-Thai region in 1281 and ruled his kingdom in Vieng-Pu-Gam, which is now a forsaken city close to Chieng-Mai. Some years later he decided to establish a new city to be the capital of Lanna-Thai Kingdom.

At that time King Ram-Kam-Haeng of Suko-Thai and King Ngum-Muang of Pa-Yao were also powerful and the three, including King Meng-Rai, were good friends. King Meng-Rai invited these two royal friends of his to come and help him locate the best site of the new city. They finally selected the area of rich flat land on the bank of the River Ping, one of the four major tributaries of the Chao-Praya River, close to Doi-Su-Thep.

King Meng-Rai, then, started to build the city by setting two groups of people to work. The first group of 50,000

was to build the royal palace and the other of 40,00 was to build the wall and dig the moat around the rectangular existing city area of 1600 metres by 2000 metres. The construction work was finished in 1296 and the three kings gave it the name "Nop-Buri-Sri-Nakorn-Pink-Chieng-Mai". A seven-day ceremony was held to celebrate the founding of the new capital of Lanna-Thai Kingdom.

Chieng-Mai has been the center of the civilization of the Lanna-Thai kingdom and, even though overcome several times by Burma and Ayudthaya. King Tak-Sin took the possession and Chieng-Mai has been a part of the Thai kingdom ever since.

The Outstanding Characteristics of Chieng-Mai

Chieng-Mai, a city of many tourist attractions, has a pleasant climate and scenery and has a glorious history of more than six hundred years. It is fast becoming Thailand's second biggest tourist attraction. The charms and attractiveness of the city are a combination of the assets that follow.

Natural Scenery

Chieng-Mai lies in a valley of charming natural scenery both in the city and in the surrounding areas. It is a composition of mountains, falls, caves, valleys, streams and rivers, with many kinds of trees and flowers among which roses are the most talked about and eventually made the city become known as "the rose of the north."

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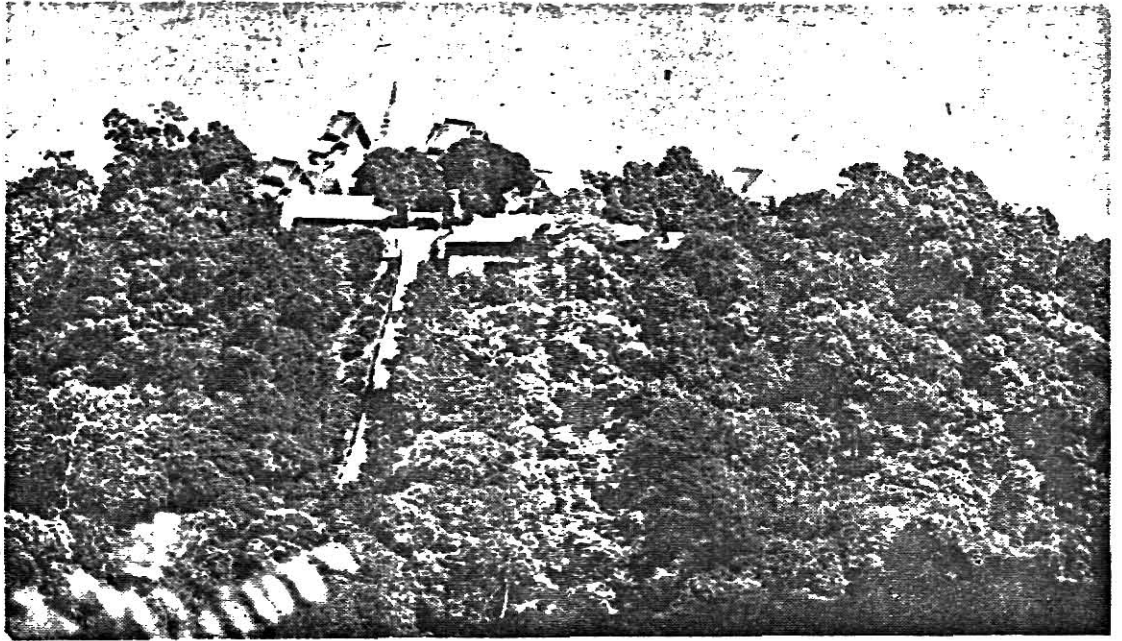


FIG. 3. WAT PRATAD DOI SUTHEP, NORTH-WEST OF THE CITY OF CHIENG-MAI.



FIG. 4. MAE-KLANG FALL, FORTY MILES WEST OF THE CITY.

Climate

One of the assets of Chieng-Mai is its climate. The city, surrounded by high mountains, is located on a fertile plain above 1000 feet in elevation. March and April are the hottest months. The temperature rises up to around 90°F but at that time, however, the monsoons bring a good amount of rainfall to reduce the warmth. The rest of the year is cool and pleasant, as that of a hillside city is. The temperature drops down to around 60°F in February, which is the coldest month and it is even lower in the mountains around the city.

City Appearances

The scenery of the city of Chieng-Mai gives an impression of an old city which has managed to maintain its own local spirit. Trees and moats along the sides of the narrow city streets make the city cool and shady. The buildings, for the most part, are made of brick, mountain stone, and timber and have high gable roofs. The residential buildings are of a small scale while the public buildings, most of which are religious ones, are of a larger scale with delicate and fantastic ornaments and details. Besides these old buildings, there are quite a few new ones which are of modern architecture and at the same time still maintain the local spirit and atmosphere. There are a few buildings which try to imitate the modern western architecture without taking into account regional characteristics. These, fortunately, are not noticed too much.

Temples

Thailand is a devout Buddhist country and thus has many Buddhist temples, or as they are called in Thai 'Wats', all over the kingdom. Wats have been the center of civilization of the Thai people for a long time. Besides being used for the religious purpose, a Wat is, at the same time, a school, a community center with a collection of art and literature and with the buildings having delicate ornaments and a calm atmosphere. A Wat has an architecture magnificent in itself. It is proudly said that the Wats help beautify the scenery of the cities and yet purify the spirits of the people.

A Wat compound, which is basically similar to the others, is divided into two separate sections. The Sangkawas is the area where the monks live while the Buddhawas is the area in which the buildings of different activities are located. "Viharn," the largest building in the Buddhawas area, contain the largest image of the Lord Buddha in the whole compound and is used as a place for meetings of various types. "Bost" is smaller than "Viharn" and is the place where many important ceremonies including daily prayer, are held. The other buildings in the Buddhawas areas are a bell tower, a library, a teaching hall and some others for different activities such as a place for burying and a grade school, for example. There are some structures located in the Wat compound such as "Chedies", which are tower-like structures which usually contain the ashes of distinguished people, occasionally kings and members of the royal families,

PLATE IV

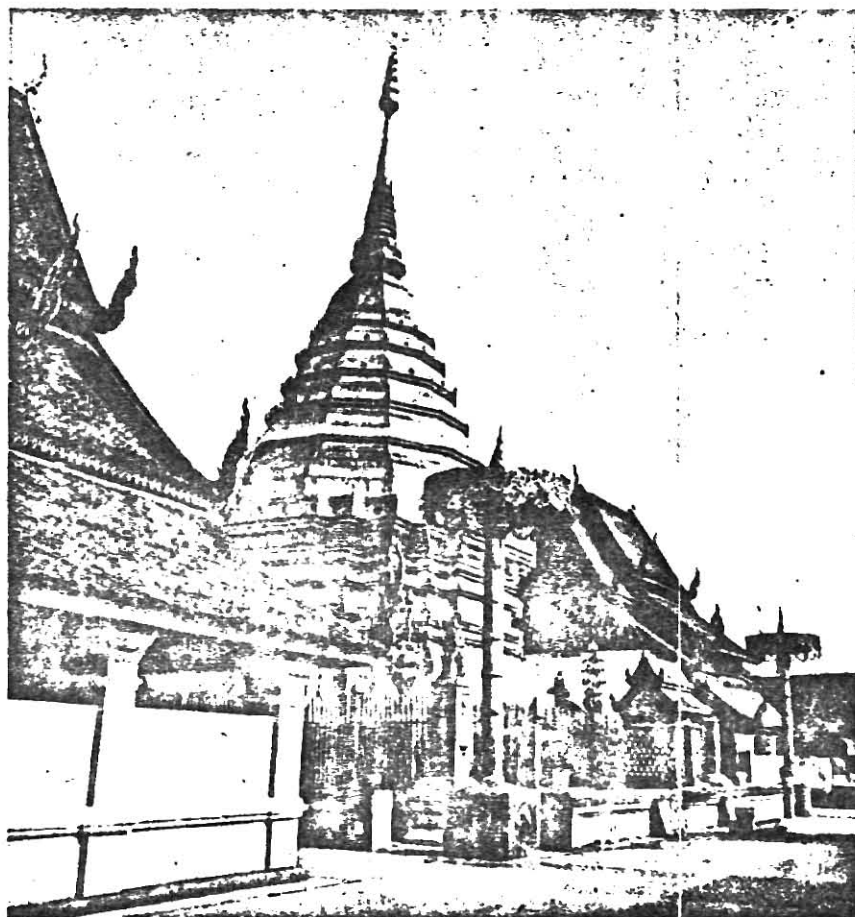


FIG. 5. VIEW IN WAT PRATAD DOI SUTHEP .

PLATE V

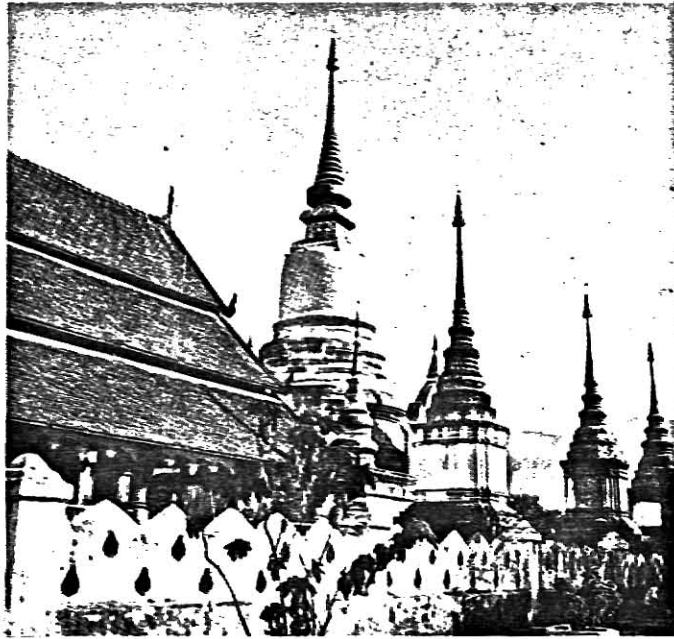


FIG. 6. CHADIES SEEN IN A WAT IN THE CITY.

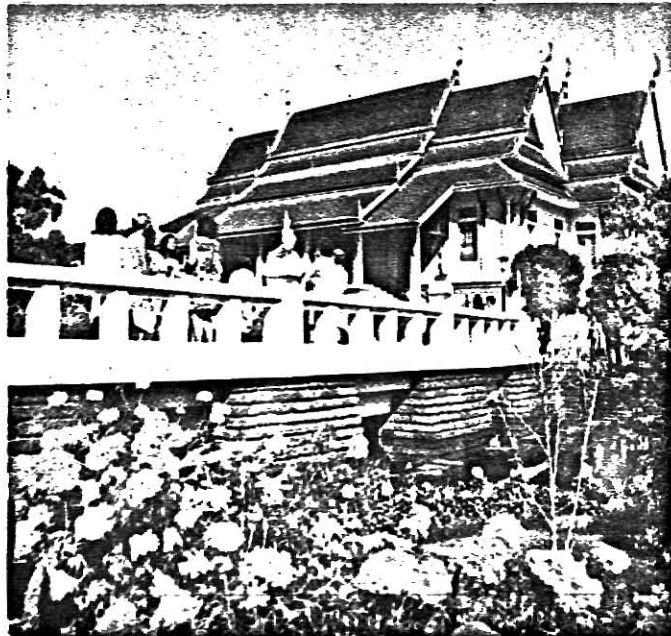


FIG. 7. VIEW IN THE KING'S MOUNTAIN PALACE.

and even the relics of the Lord Buddha in some important Wats. Usually an average Wat will have at least one Bhodi tree which is regarded as sacred because under this kind of tree the Lord Buddha attained enlightenment.

Inhabitants are very proud to note that the province of Chiang-Mai has the largest number of Wats, in comparison with those in any other provinces, in the country. There are almost one hundred of them in the city itself and about one thousand in all the province area. Wats in Chiang-Mai represent the spirit of northern-Thai architecture which is different from ones in the other parts of the country.

Folk Art Industry

The Chiang-Mai museum and the Wats have on display historical folk art. Also, a good number of people in Chiang-Mai earn their living by making native products which are also considered to be folk art. These hand made objects create a deep impression which can not be duplicated by the machine.

Most of the folk art can be found in the shopping area of the city, and it is recommended that tourists visit the factories, sometimes including every single house in a particular village. It usually takes a short period of time for tourists to get to a factory so that they can observe the process by which the objects are made and have a chance to talk with those who make them. These objects the tourists appreciate highly, and they are the pieces they take back with them as souvenirs.

Silverware is one of the outstanding native products of the city together with glazed stoneware and lacquer vessels which are made by forming the thin sliver of bamboo into desired shapes and then dipping them into lacquer about fifteen times until they attain the proper thickness. They are then etched on the surface with sharp tools, to make designs and to which the gold leaf is applied.

Ambrella village is a place to be visited. It is located some few miles east of Chieng-Mai. All of the inhabitants, regardless of different ages, take part in making the beautiful paper umbrellas which can be used on either a sunny or a rainy day. They are assembled from bamboo and a local kind of paper. Bright, and colorful, flower patterns are skillfully painted on the umbrellas by the hands of the people who always give friendly smiles and who explain the processes of their work to the interested visitors.

Chieng-Mai, being one of the cities in northern Thailand, has a plentiful supply of teak and other hard wood forests. It is famous for its skill in wood carving. Besides the wood buildings with carved-wood pannel, pediments, columns, window and doors, many other examples of wood-carving are to be found in the museums, temples, houses, and also in the stores. Pieces of Thai classic furniture, flower pots, trays, native musical instruments, and carved wood elephants which are somewhat the symbol of the city are outstanding items as souvenirs which are unbelievably inexpensive.

PLATE VI



FIG. 8. SILVERWARE INDUSTRY.



FIG. 9. VIEW IN UMBRELLA VILLAGE.

PLATE VII



FIG. 10 WOOD-CARVING INDUSTRY.



FIG. 11 SILK AND COTTON SEEN IN TYPICAL
FOLK ART STORE.

Hand-made Thai silk and cotton are both important native products. Thai silk is now internationally famous while Thai cotton is slowly becoming famous. There are a good number of workshops that produce and stores that carry these two items in the city of Chieng-Mai; however, more can be found in Lampoon and Pasang. The two towns are close together and are about half an hour's drive from Chieng-Mai on the very pleasant road with old rubber trees along the sides. Thai silk is used more for clothing; Thai cotton is used both in clothing and interior decoration. Many ready made items of cotton products such as table cloths, bed spreads, and luncheon sets, most of which are embroidered with fancy northern Thai design, are getting better known, and hopefully the Thai cotton will, in the very near future, be as famous as Thai silk.

Besides, the above mentioned items, the craftsmen of Chieng-Mai produce many other items that are attractive souvenirs. Jewelry is among the famous souvenirs because of its unique designs and materials which are of different colorful kinds of stone, silver, and copper. Dolls are also interesting with their pretty native costumes and decorations both of which immitate the real ones used by local people and of the tribesmen who live upon the mountains around the city.

Tribesmen

Chieng-Mai is interesting also because there are some

twenty distinct tribes living on the mountain in the province area. Those tribesmen are believed to have migrated from the southern provinces of China, principally Yunnan, some as recently as several hundred years ago. Those hill tribes, varying in size and characteristics, have almost absolutely retained their own cultures, traditions, and way of living.

There are many interesting aspects to be studied concerning those tribes, some of which accept visitations from strangers. They would rather come down to the city themselves to trade their products, mostly their unique and expensive handmade jewelry, costumes, musical instruments, and weapons, some kinds of fruit and vegetables, and pets which are mostly birds, for some of their living needs such as some kinds of food and medicine.

The government has been trying to study these people and to help them. Many schools have been founded in the villages for their children and groups of doctors, nurses, and hygiene engineers have visited them. In most cases, a visit to their villages is difficult because of lack of proper means of transportation and because some of them are nomadic and travel from place to place. Some of those tribes are accessible; Mao, for example, is accessible to tourists who want to observe the real detail of their living habits. The tribesmen, however, are getting closer to the city. They sometimes come down in groups to visit the city's festivals in which they occasionally take part by displaying some of their romantic music and dances.

PLATE VIII



FIG. 12. VIEW IN A TRIBESMAN VILLAGE

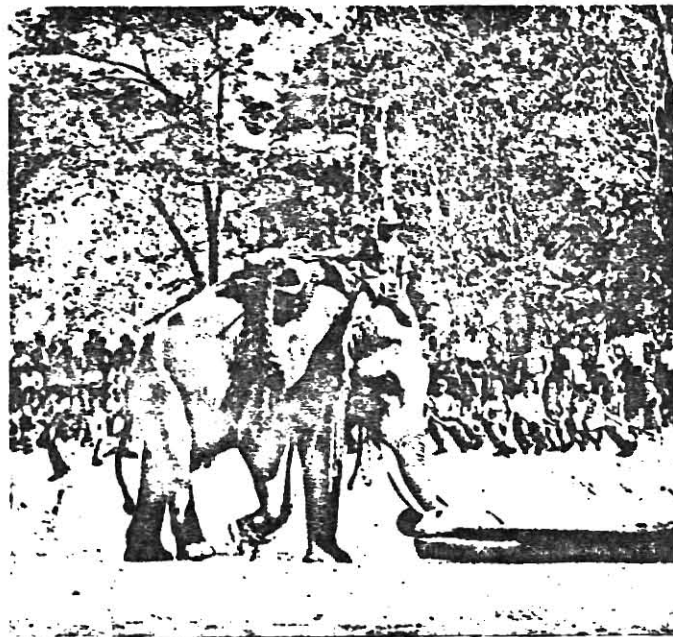


FIG. 13. AN ELEPHANT AT WORK.

Festivals

The people of Chieng-Mai manage to observe in all parts of the year their impressive festivals which they have preserved for centuries. Those festivals are basically for the pleasure of themselves, but the visitors are always welcome and incidentally, the festivals are becoming the big attraction to bring tourists to the city and help develop the tourist industry of the city.

The Thai new year or "Songkran" is a festival lasting three days starting in mid-April. This consists of religious ceremony with the people enjoying the festivity by carrying sand from the River Ping to the Wats and there forming small Chadies. Water throwing joyfully takes place by all the people as a part of the festival. This is enjoyed because the season is very hot.

An early rainy season comes at the time of the festival to celebrate the harvest of "lamyai" which is the most famous kind of fruit of Chieng-Mai. The highlight of the festival is the beauty queen contest with many pretty girls most of whom are from northern Thailand.

Just after Lamyai festival there comes the time when young men enter the priesthood during the Buddhist Lent. Many exciting parades, with the shaven headed priests-to-be carried on their friends' shoulders with long lines of dressed-up people carrying decorated articles, together with musical groups, start from the residences of those young men entering the priesthood and parading to the Wats where

the ceremonies are held. These parades appear on the streets of Chiang-Mai everyday during the Buddhist lent.

At the end of the rainy season, the Buddhist lent ends with "Kathin," a season when gifts are brought to the Wats by many different large groups of people who parade along the streets of the city with music and folk dancing. Big ceremonies and feasts are held at the Wats which are brightly decorated at that time. Traffic stops caused by the exciting parades are the normal incidents during late October and all November when the "Kathin" season takes place.

The impressive "Loy-Krathong" comes in late October or early November, depending on the lunar year. At the night of festival with a full moon in the sky, the River Ping contains its highest water. Thousands of people, some of which form themselves into groups and parade through the city, carry their "Krathongs," the small lotus-shaped floating objects, to the bank of the river and then place them upon the running tide which is then wonderfully illuminated by both the moon and the candle lights shining on those "Krathong." The purpose of this procedure is to send their respects to some kind of God in the ocean. The people also hold the "Krathong" design competition and the beauty contest at this time.

The biggest and largest festival, "The Winter Fair", comes at the end of the year when the weather is comfortably cool. Starting on New Year's eve and continuing for the whole week, the fair provides exhibitions, show, folk dancing,

and outdoor theatres. There will be two beauty contests to select Miss Chieng-Mai and Miss Northern Thailand. The fair is so exciting and impressive that Chieng-Mai allows its inhabitants to rest in pleasant memories for three months until "Songkran" comes around.

Besides these city festivals, there are many smaller ones occasionally held by different groups of people such as annual celebrations of the Wats and schools, and many exhibitions and fairs all of which make Chieng-Mai the city of enjoyment.

The very interesting and impressive time for visitors is when they are invited to the native kind of dinner given by Chieng-Mai hosts. All who attend the "Kahn-tok" dinner dress in Chieng-Mai native costumes which are blue cotton shirts and pants for males and colorful long sleeved blouses and long skirts for females. Delicious native food is placed on low tables at the center of groups of guests who sit on the floor covered with beautiful reed mats. The feasts are lively with the charming traditional dances by groups of pretty and well-trained girls along with beautiful folk music by a group of native performers with their native kinds of instruments.

People

It is accepted fact that one of the factors contributing to the atmosphere of a city is the characteristics of its inhabitants. The people of Chieng-Mai are well known for their appearances, hospitality, and good manners. Part of

PLATE IX



FIG. 14. VIEW DURING KAHN-TOK DINNER.



FIG. 15. CANDLE DANCE, A FAMOUS FOLK DANCE OF CHIENG-MAI.

the reason why they have such distinctive qualities is due to their history. Chieng-Mai has been a city of economic, religious, and political importance for centuries; thus the present day culture has roots that go down very deep. They are conservative in some ways having their own costumes, dances, and cuisine and their own dialect which they use in daily conversation.

To visitors the people of Chieng-Mai are generous and friendly; they always welcome and are ready to help those who come a long way to visit their city. Because of their appearance, they are admired all over the country and this situation is proved by the fact that the girls from this part of the country always win the open beauty contests held in Thailand. These characteristics of the Chieng-Mai people always impress the visitors and they stay very long in their pleasant memory which they take back with them to their homes.

Tourist Industry in Chieng-Mai

Background

A study of available factors indicates that Chieng-Mai is directly concerned with a plan to expand tourist activities from Bangkok. The city has the qualifications to become an international tourist attraction. The goal can be accomplished with the improvement of existing tourist services and facilities.

Having been well known and often visited by Thai people

from other parts of the country, Chieng-Mai had not had too many chances to welcome foreign tourists, because the lack of convenient transportation and quality accomodation services. Lately the situation has been getting brighter, since two over-night railroad trips and many two-hour flights have been scheduled daily from Bangkok. The completion of the highway Lampong-Chieng-Mai has also encouraged more people to visit Chieng-Mai by both private automobiles and public buses which have a multi-choice schedule. Hotels, which had been a big problem, have been improved and some new ones have been opened to accomodate more tourists which, according to the statistics, are rapidly increasing in number.

The Needs of Resort Hotel for Chieng-Mai

The tourist industry and hotel industry depend closely on one another. Since the tourist industry in Chieng-Mai is to be developed, the hotel industry becomes an important factor to help the development.

At the present time, Chieng-Mai has quite a few hotels nine of which are considered first class city hotels with about 500 rooms all together. Some new first class hotels are being constructed and some of the existing ones are being expanded according to the increasing number of tourists visiting the city.

Considering the pleasant climate and beautiful scenery of the mountain ranges around the city, it seems

feasible to have at least one resort hotel which will directly help the tourist industry of the city, and it is noticeable that there is not one yet. A resort hotel on a mountain would have a different and more desirable atmosphere than that of the existing city hotels. It would be in a mountain environment and would let the tourists have a chance to live in and enjoy the activities of a mountain resort. The hotel would create a new and interesting feature and would add to the existing ones in helping Chieng-Mai become an international tourist center.

IV. PROJECT PROGRAM

The project is a design for a mountain resort in the mountain area of Chieng-Mai. The design takes into consideration those activities that could provide Chieng-Mai with a first class recreational resort.

Purpose of the Project

The purpose of this project is to help carry on the development of the nation's tourist industry which is now in the stage of expanding tourist activities from Bangkok, the capital and the center of tourist industry, to other parts of the country.

The project has been developed to meet the demand for the yet missing necessary facilities to accomplish the goal of making Chieng-Mai the international tourist attraction.

The existence of the resort hotel should be a benefit to the community and to the nation as a whole and these benefits could be broken down into the following:

1. Develop the productive activity of a once non-productive area.
2. Attract more tourists by providing convenient living accommodations and a wide variety of recreational facilities in the mountain environment.
3. Solve the problem of a shortage of tourist hotels accommodations in Chieng-Mai.

4. Provide the community with the necessary facilities for conventions.

5. Provide a good number of jobs to local people who would come to work in the resort.

6. Benefit many other types of business which could sell their services to the tourists and/or directly to the hotel.

7. Create a complex of buildings to express the spirit of the northern Thai architecture.

Selection of Site

In order to select the right location for the resort the following criteria have been set up.

1. The area should be on the mountain at a high elevation to enjoy the cool mountain atmosphere.

2. The area should be close to a water source that can be dammed to create a lake that is big enough to supply water for the usage of the hotel, the golf-course and to serve the recreational purpose of a fishing and boating area.

3. The area should be easily accessible to the existing transportation facilities and should not suffer by having a great distance from the city which is the center of tourist activities.

4. The site should be attractive and should contain one moderate sloped area of at least 120 acres to become an 18 hole golf-course.

After comparing the qualifications of number of possible sites, it was decided that the area Northeast of Doi Poi would

be the most suitable location of the resort for the reason that it best fulfills the criteria numbers one, three, and four, and there still is a possibility, if less practical than are in the others, of creating a good sized mountain lake according to the original purpose.

Functional Space Requirements

<u>Public Space</u>	sq. ft. per unit	number of unit	total
lobby and front office	2500	1	2500
lounge	1200	1	1200
corridor adjoining			
men's toilet	300	1	300
women's toilet	300	1	300
women's rest room	250	1	250
<u>Concession space</u>			
Barber shop	360	1	360
laundry and dry cleaner	360	1	360
<u>Subrented space</u>			
rental stores		7	5000
rental storages			1500
<u>Guest rooms</u>			
double bed rooms	280	180	50400
single bed rooms	230	20	5600
cottage houses		30	

<u>Food and Beverage service</u>	sq. ft. per unit	number of unit	total
main dining room	4000	1	4000
main kitchen	2500	1	2500
coffee shop	1500	1	1500
bar and cocktail lounge	1500	1	1500
private dining rooms	500	3	1500
banquet hall	4000	1	4000
banquet serving pantry	800	1	800
employee's dining room	1000	1	1000
steward's store room	1000	1	1000
beverage store room	350	1	350
china, glass, & silver storage	400	1	400
receiving room	400	1	400
garbage room	170	1	170
<u>Conventional Facilities</u>			
convention rooms	1000	3	3000
auditorium	6000	1	6000
<u>Indoor Recreation</u>			
card and chess room	500	1	500
games room	1500	1	1500
small theatre	1700	1	1700
men's toilet	250	1	250
women's toilet	250	1	250
storage	500	1	500

<u>Swimming Pool Facilities</u>	sq. ft. per unit	number of unit	total
swimming pool			
men's lockers	1200	1	1200
women lockers	1200	1	1200
mechanical room	500	1	500
pool storage	300	1	300
refreshment bar	200	1	200
<u>Tennis</u>			
Maintenance storage	200	1	200
tennis courts		4	
<u>Golf</u>			
eighteen hole golf course with practice green and fairway			
lounge	1000	1	1000
refreshmen bar and pantry	400	1	400
pro shop	500	1	500
caddy lounge and lockers	1500	1	1500
men's lockers	800	1	800
women's lockers	600	1	600
cart storage and shop	1000	1	1000
<u>Park and lake</u>			
boat dock			
camping ground			
hiking trail			
horse back riding trail			
stable			
park maintenance office and storage			

V. DESIGN CONCEPT

It is known that environment and its human inhabitants are closely dependent on each other; men, would like to be in a pleasant environment whenever they can. When men, for some reason, can not live in the kind of environment with which they are most pleased, they long to be in one for even just a short period of time. Even though some men are fortunate enough to be able to live in a most desirable place, they still want to stay in other desirable places sometimes to have a change in the environment.

The first and most important reason men create architecture is that they want to control their environment. Men can adapt themselves to their surrounding environment (heat, cold, and rain) for only a short range of change. Beyond this, it is difficult to adapt themselves. Primitive architecture is a good example because it served only as a shelter from extreme climate.

Men are born with a desire to be part of nature. They, in most cases, would choose to live close to nature and in the kind of housing which lets them enjoy, to the utmost, their surroundings. Men want to go outside and enjoy nature and if they have reason to stay in they want to open their shelters somehow so that they are able to enjoy the outside atmosphere.

When they are fortunate enough to stay close to nature, men will want to enjoy the feeling of being with nature even in all stages of environment to which they could adapt themselves; however, when it is raining or is very cold or hot, men would be pleased to remain in their comfortable closed space and watch what is going on outside. Only when the surrounding environment reaches its extreme stages and frightens them, for example by storm or thunder, do men want to be cut off from nature and enclosed in their own secure space.

Once built, architecture becomes an environment for its inhabitants. Designing architecture is the means by which to create new environments by controlling, changing, and adding more aspects to the existing one. The variety of the tasks and volume depend upon the characteristics of the existing environment and the functions the architecture is to serve.

In this particular project the site is to be selected for its pleasant climate and natural beauty of scenery and the possibility of its being used for a resort. The goal could be achieved by the task of creating architecture for the existing environment with its pleasant aspects which could be emphasized by making it possible for the inhabitants to enjoy the new environment with the combination of architecture and its surroundings.

Architecture should give to men the sense of place.

This means men should be able not only to feel that the architecture belongs to the site but also, to get a clear picture of where it is by its appearance and atmosphere which are also influenced by history, culture, and the race living in the region.

As the resort is to be located on the mountain above Chiang-Mai, its architecture should, somehow, be related to the city. Study shows that the native architecture of northern Thailand has strong characteristics which should be admired and maintained. Most of these distinguishing characteristics could be thoughtfully applied and united by the functional requirements and modern technology in the creating of a design for a contemporary resort.

VI. ENVIRONMENTAL TECHNOLOGY

Climate Control

The proposed resort is to be located on the mountain area Northeast of the city of Chiang-Mai, about 78° 51' latitude North and 98° 54' longitude East, at the elevation of about 1400 metres above mean sea level at Ko Lak. The climate is cooler than the one in the city below and the content of moisture is also higher. Various kinds of trees cover a good part of this mountain area. This situation helps lower the local temperature and to preserve the moisture in the ground and in the air. The average temperature varies from 74° F in winter to 83° F in the summer. The prevailing winds come mostly from the south during the summer months.

Though it would be on the mountain and surrounded by the forest, the resort would be affected by the tropical sun. The sun's rays directly and indirectly create heat which, in certain conditions, might cause discomfort to people. Only in some exceptional situations, for example, on a chilly day or during some outdoor recreational activities, are direct sun rays preferable and enjoyable.

The heat caused by sun rays can penetrate into architectural space in different manners. The principal one occurs when the sun's rays reach the space through openings. The most effective protection against this kind of penetration

TABLE 4

TEMPERATURE AT MANHATTAN(KANSAS), BANGKOK, AND CHIENG-MAI

MONTH	MANHATTAN			BANGKOK			CHIENG-MAI		
	AVE.	MAX.	MIN.	AVE.	MAX.	MIN.	AVE.	MAX.	MIN.
JULY	80.2	93.0	67.6	83.8	90.4	76.6	80.7	88.7	74.4
AUGUST	78.5	91.5	75.8	85.3	91.8	77.2	79.1	86.5	72.7
SEPTEMBER	70.5	83.6	57.8	84.5	90.4	76.0	80.7	89.7	70.6
OCTOBER	58.1	71.2	45.2	81.8	90.1	77.2	80.9	87.7	71.9
NOVEMBER	44.0	56.0	31.8	82.7	87.3	77.8	77.3	86.1	66.5
DECEMBER	32.2	42.9	22.0	81.2	87.0	75.1	74.2	82.7	64.3
JANUARY	29.2	39.6	18.5	73.8	92.9	69.9	79.4	85.2	57.3
FEBRUARY	32.4	44.3	21.1	85.5	95.3	70.9	73.9	89.2	55.7
MARCH	44.0	56.5	31.4	86.0	97.0	75.3	75.4	90.8	68.7
APRIL	55.2	67.9	42.5	89.2	98.2	76.1	82.6	99.7	64.9
MAY	64.8	76.6	52.8	86.7	95.2	77.0	83.0	93.5	55.5
JUNE	74.7	86.7	62.6	86.6	91.5	75.8	82.1	91.3	74.1

TABLE 5

RELATIVE HUMIDITY AT MANHATTAN (KANSAS), BANGKOK, AND CHIENG-MAI

MONTH	MANHATTAN	BANGKOK	CHIENG-MAI
JULY	70.2	75.1	79.6
AUGUST	67.5	76.1	78.5
SEPTEMBER	62.5	76.6	85.9
OCTOBER	65.5	79.3	78.9
NOVEMBER	66.0	78.1	75.9
DECEMBER	70.7	77.6	79.3
JANUARY	70.5	65.6	66.6
FEBRUARY	70.7	68.8	68.1
MARCH	66.2	60.2	56.8
APRIL	61.7	66.5	58.7
MAY	68.7	70.6	71.2
JUNE	70.2	73.1	73.2

TABLE 6

WIND AND RAINFALL AT BANGKOK AND CHIENG-MAI

SEASON	MONTH	WIND		RAINFALL (INCHES)	
		BANGKOK	CHIENG-MAI	BANGKOK	CHIENG-MAI
RAINY	JULY	S, SW	S, SW	6.30	9.60
	AUGUST	S, SW, W	S, SW	6.00	8.20
	SEPTEMBER	S, SW, W	S, SW	13.20	10.60
	OCTOBER	N, NE	S, SW, N	8.90	9.20
	NOVEMBER	N, NE	S, SW, N	2.00	1.00
WINTER	DECEMBER	N, NE, NW	S, SW, N	0.40	1.00
	JANUARY	N, NE, E	N, SW, S	0.25	0.08
	FEBRUARY	S, SW, E	S, SE	1.37	0.01
SUMMER	MARCH	S, SW	S, SE	1.00	0.03
	APRIL	S, SW, SE	S, SE, SW	4.00	1.00
	MAY	S, SW, SE	S, SE, SE	5.50	5.50
	JUNE	S, SE	S, SW, SE	6.50	4.00

is to minimize the area of openings in the outside wall on the east and west sides which, for the most part, face the sun.

The other way that uncomfortable heat can get into the building, is that it may be transferred through the walls when the sun's rays are directly projected on them. Again the east and west walls become the objects of consideration. The building should be designed or placed on the site in such a way that the area of these surfaces be proportionally smaller than the ones on the north and south sides. For more effectiveness in preventing heat from the sun's rays, projected surfaces should be either shaded by architectural structure and trees or provided with a heat reflecting material.

Heat can also get into the building by air movement. When the surrounding air is hot and moves in through the openings, it will cause discomfort. Since air movement is needed to ventilate the architectural space the problem could, then, be solved by protecting the outside air from being heated. Trees can be used effectively in absorbing the heat and shading the building and surrounding areas. The use of trees with tropical architecture should be the answer to the need to eliminate uncomfortable heat. Trees are natural elements, so their being used will give the feeling of closer relationship between architecture and its natural environment.

Ventilation is one of the important factors governing the design of tropical architecture. The discomfort caused by a hot and humid climate could be released by the movement of the air in and through the inside spaces. The effectiveness of ventilation in one building depends on the volume of space, size and location of the openings. When ventilation is greatly needed the building should be designed to contain more area of openings than solid wall. Solid wall could be, in most cases, replaced by screened openings. Location of openings of one building is dictated by the directions of the prevailing winds. There are a number of times that prevailing winds come together with sun's rays, if this situation happens, well shaded and screened openings would be the answer to the problem.

Heating and cooling facilities, even though they are desirable, are not an absolute demand. They should be provided in this resort habitat for the purpose of achieving more comfort because of some extreme climatic conditions. It gets very cold during some winter nights and observation shows that most local buildings contain heating facilities which, for the most part, are fireplaces. Cooling facilities seem to be of less necessity, but there are factors favoring the decision to recommend them in this project. The fact that the weather sometimes, during the summer months, becomes exceptionally hot even in well shaded and ventilated spaces, has shown the necessity to consider them. People who are used to the hot and humid climate might not feel discomfort

to a great degree but those who are not so conditioned, might find it difficult to endure the heat. It is true that the major reason people come to this resort is to have an opportunity to enjoy a beautiful natural environment but there are some exceptional conditions in which heating and cooling facilities would help them to have an enjoyable experience.

Climate conditions vary considerably from one season to another, and even from time to time in one single day. The architecture should be flexible in the sense that the building can give the most desirable comfort to its occupants during any changes in the weather.

Reservoir and Water Supply

A reservoir will be needed for this resort to serve two major functional requirements. It will provide a good water supply and also serve the recreational facilities. Since there is no mountain lake in the area, the possibility of creating a reservoir has been one of the major factors affecting the selection of a site for the project.

The size of the reservoir and the location of the dam depends upon a number of factors. The need of a water supply determined the minimum volume of water the reservoir should contain and the recreational purpose required the certain minimum area of water surface. Other factors were concerned with the drainage area and the annual rainfall which would be the only source of water supply for this

reservoir.

The selection of the type of dam came after the consideration of the characteristics of different types together with a consideration of the physical features of the dam site and the functions of the dam. The economical factors were the strong influences in reaching the conclusion.

The topography of the dam site was the primary guide in determining the picture of what the dam would look like. Its geological character, thickness, and the permeability of the strata on which the weight of the dam structure would be placed, their relation to underlying strata, existing faults and fissures, determined the type of foundation for the specific dam structure.

Availability of construction material was a concern directly related to the economical factors. The cost of the project could be reduced by taking advantage of every local resource and this procedure must be accomplished without sacrificing the efficiency and quality of the final structure. Mountain stones of many types and earth soil were accordingly, for the most part, to be used in the construction of the dam.

The water supply for people's use in this resort would come from the reservoir. The water would be drawn up to one collection reservoir on the mountain at a height greater than that of the resort complex; it would be purified and then be drawn down to the complex by its gravity.

Structural Systems, Acoustics,
and Building Material

The structural systems in this project have been designed to achieve economical, practical, and aesthetic results regarding the different kinds of architectural spaces in which to host different kinds of activities. The following discussion presents this in more detail.

In reference to the nature of this hotel complex there are three major types of room spaces determined by the differences in their sizes; a group of small rooms, a group of larger rooms and a very large auditorium.

The group of small rooms mentioned above are the guest rooms. They are a series of rectangular - one story high structures with the necessary openings on two disconnected sides, therefore, bearing walls were selected to transfer the roof load to the supporting ground. Wood screens on the concrete roof would reduce the heat from the direct sun rays and at the same time provide a more attractive appearance for observers looking down. Wood deck for each guest room allows air to breeze through, therefore creating a good ventilation for the unit below. Besides the wood deck would act as the louver of the under patio providing it with shade. Big trees, seen growing through the wood deck, would be either the originally existing ones or those planted after the completion of the structure.

The group of larger spaces can be found in the upper part of the complex; it includes the public and service

areas. This part of the complex would be either two or three stories above the ground. The reinforced concrete frame type of structure was selected because of its strength, its fire resistance, and its lesser obstruction to floor plans.

The very large space following the two groups above is the interior space of the auditorium. It would have a roof structure which needs to be supported by a wide span; and the steel frame structure was the answer. The rest of the structure, floors, walls, are a combination of reinforced concrete frame and wall bearing systems. The plan is to have the auditorium interior space constructed according to a basic acoustical design.

Wood, the locally available material, is used in the resort buildings for decorative, structural, and acoustical purposes. On the exterior of the building one will see both wood shingles and wood screened roofs; and furthermore a good portion of the interior surfaces would be constructed of wood or screened with wood; walls, ceilings, and floors. In the auditorium and the dining hall, wood screens are often used because they help to absorb undesired sounds and also give an opportunity to use indirect lighting by having the illuminating sources installed back of them. Wood covered walls would also be used for decoration and, furthermore, smooth wood covered walls could act as reflectors; for example, when placed acoustically in the auditorium they would help obtain reinforcement of sound.

Stone flooring and stone retaining walls would also be counted on as major elements. Many kinds of stone are found in the area; some of these kinds are used either as structural or decorative elements or as both. Most of the retaining walls would be stone masonry, for only in a few exceptional cases, where extra strength is required, would they have to be replaced by reinforced concrete walls.

Glass would be another kind of material often used in this project. Using glass for openings, doors, windows and the clerestories, will provide natural lighting which is the primary choice in relation to vision and the feeling of continuity of spaces. Since these pieces of glass would be used in different places and for different purposes, they could be clear or tinted accordingly.

It is obvious that most of the building material used is locally available material, which includes both material from natural sources near or on the site of construction and products obtained from local industries. In most cases it is less expensive considering its costs and the transportation time and expenses. Using local material would also benefit local industry.

Besides wood and mountain stone both of which are natural obtainable material, other kinds of building material are available in forms of factory products produced by industry. These products include brick, clay tile, wood tile, all of which come in different sizes, forms, and designs. Many factories provide ready to use forms of

locally natural materials such as ready cut stone, construction wood, ready sifted sand and ground stone to use in a concrete mix, and many other items.

Some kinds of the especially needed materials, however, are not found or produced in local areas. In these cases, materials from some other places could be used depending on their availability, economical value, and the degree of need. A needed material could be either purchased from or ordered through local building material companies or ordered directly from its original sources. In the present situation in Chieng-Mai, these kinds of material are construction steel, qualified glass, and cement.

Another significant advantage obtained in using the locally available material is that its use will give to a building more sense of place and thus bring out the relationship between the architecture and its environment. The fact that the same kinds of material have been used in most native architecture is strongly indicated in a good number of examples.

PLATE X

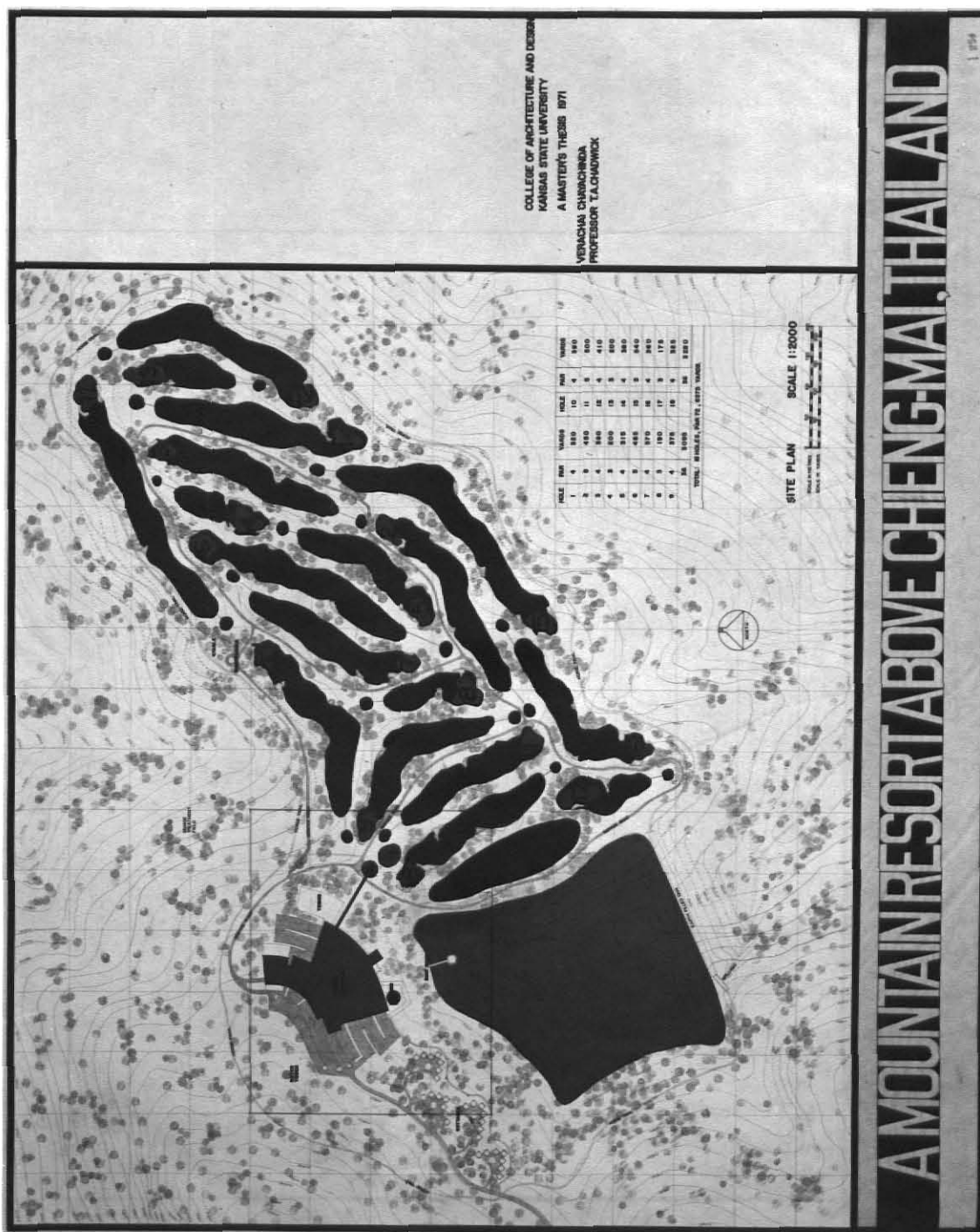


FIG. 16

PLATE XI

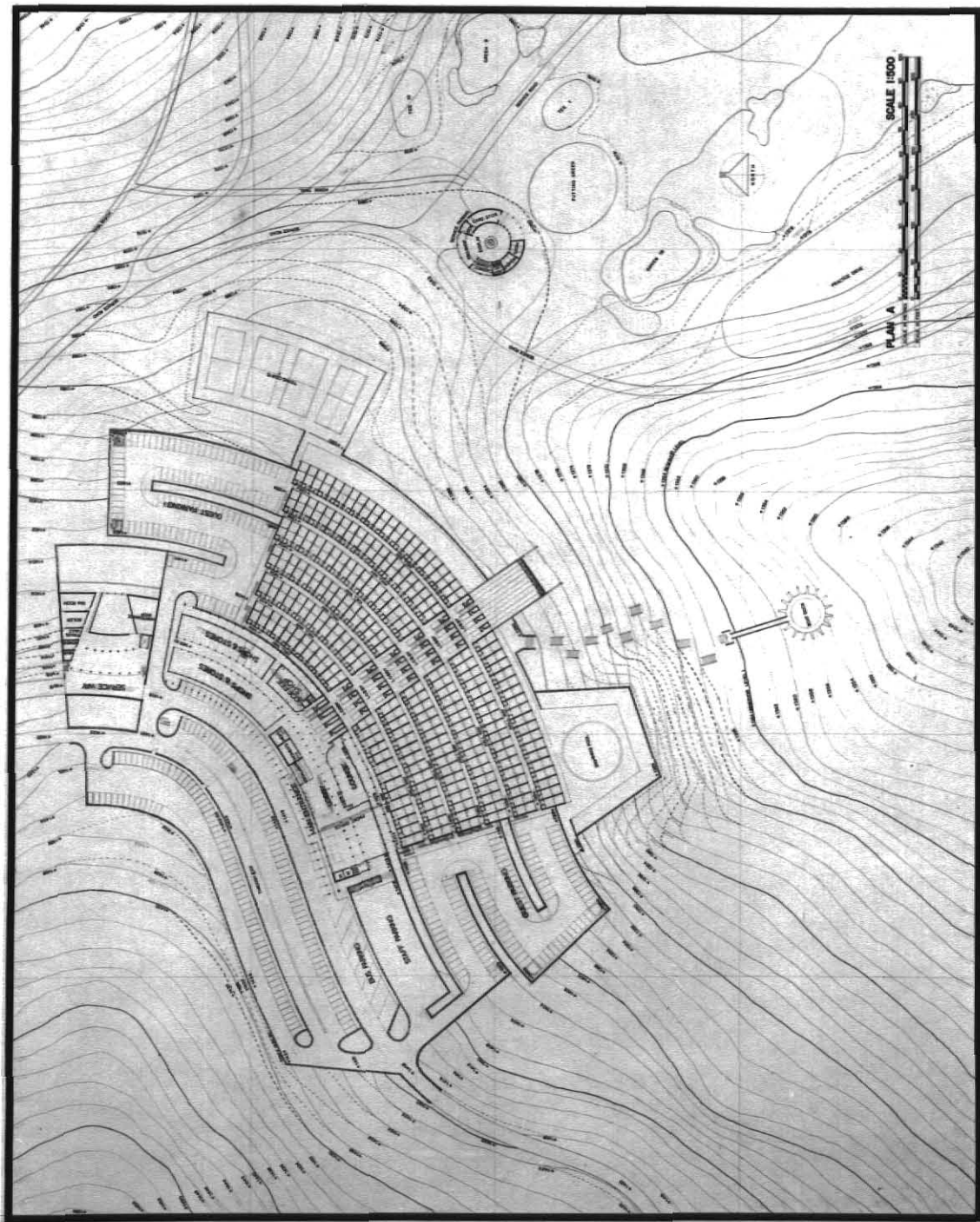


FIG. 17

PLATE XII

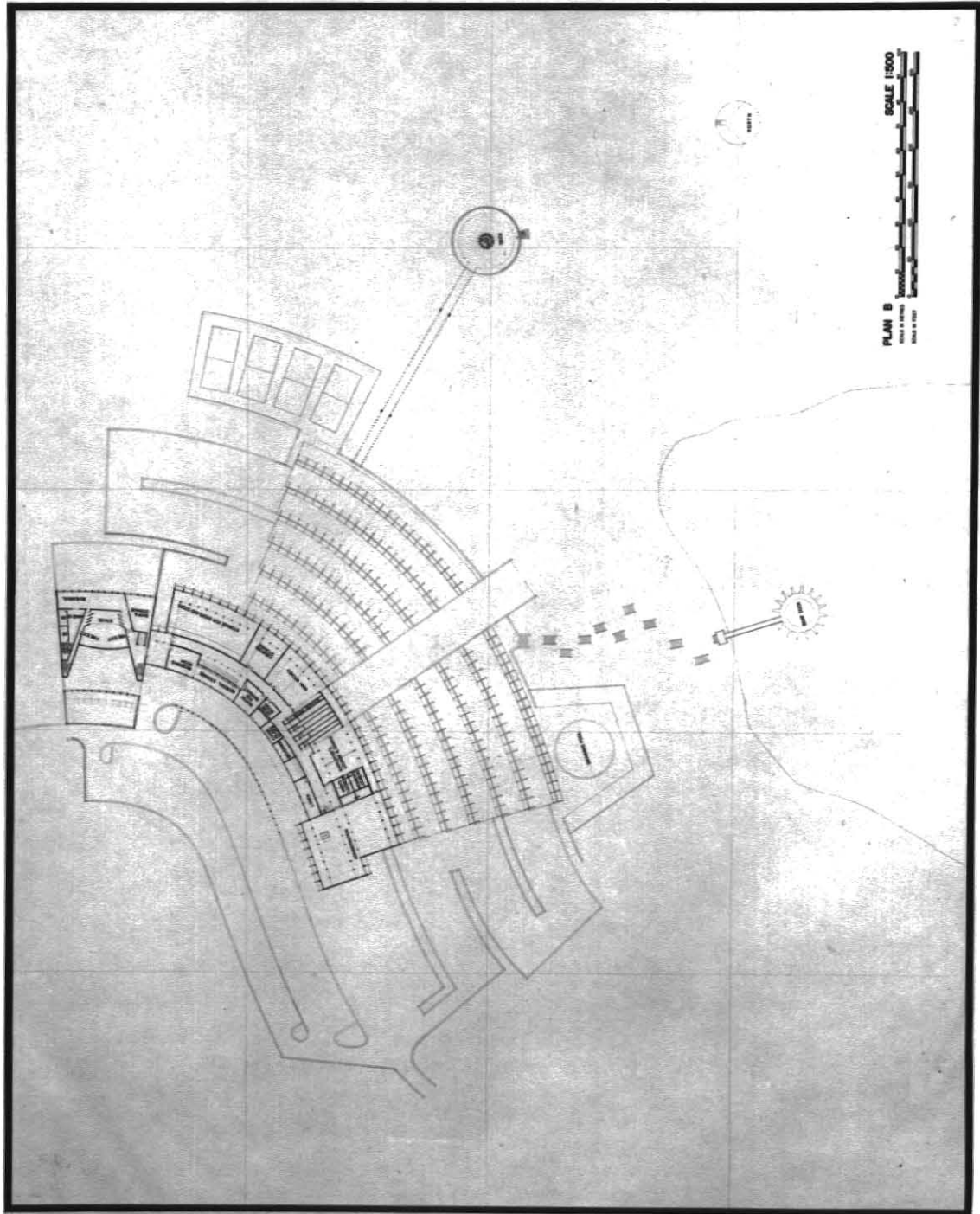


FIG. 18

PLATE XIII

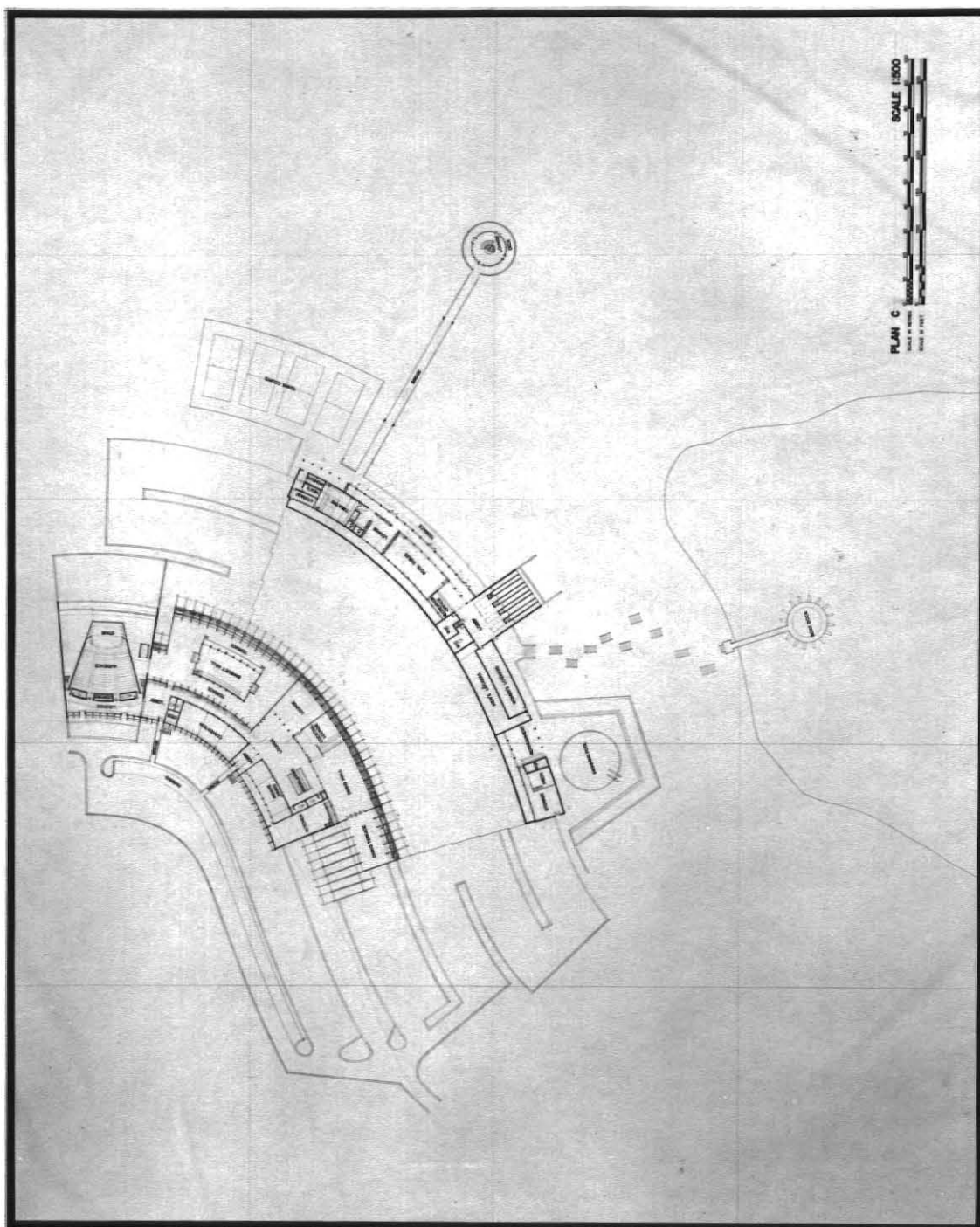


FIG. 19

PLATE XIV

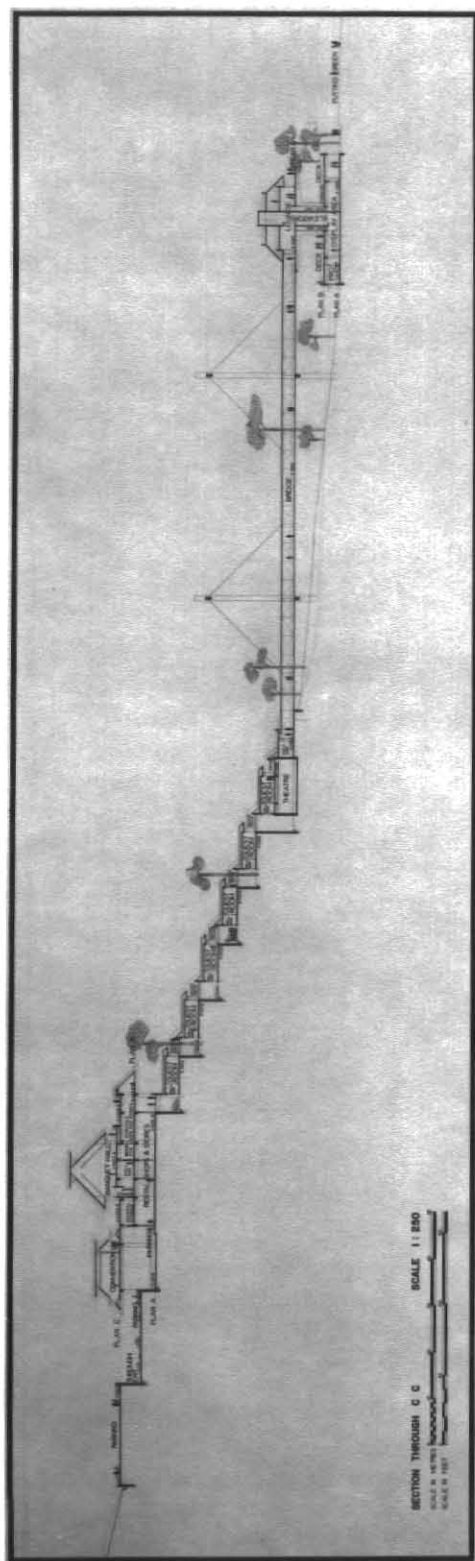


FIG. 20

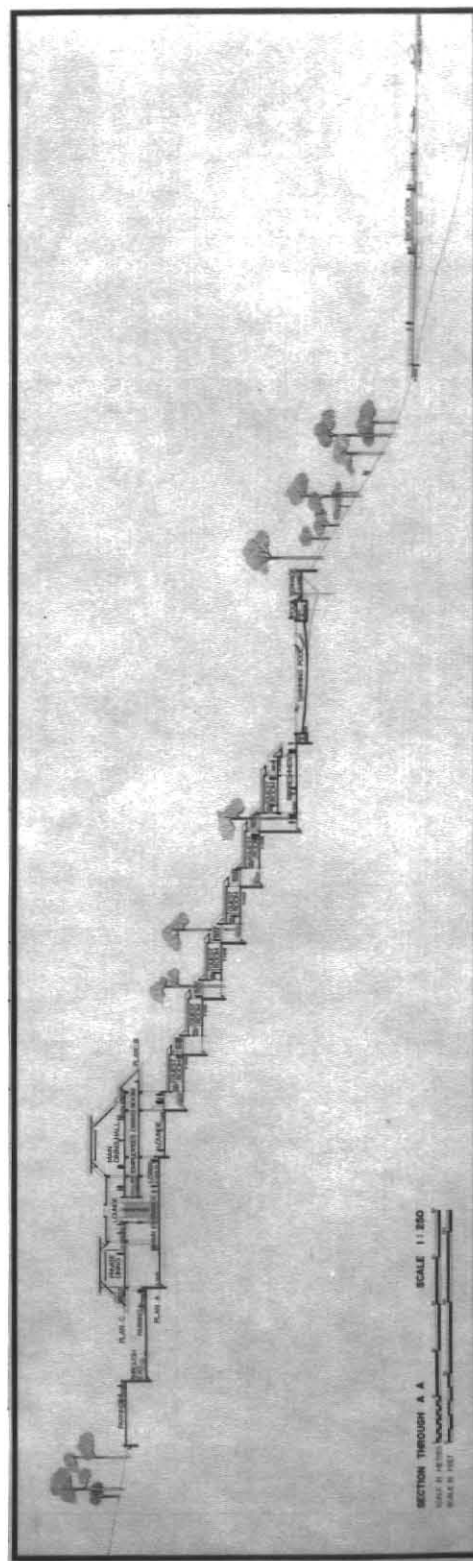


FIG. 21

PLATE XV

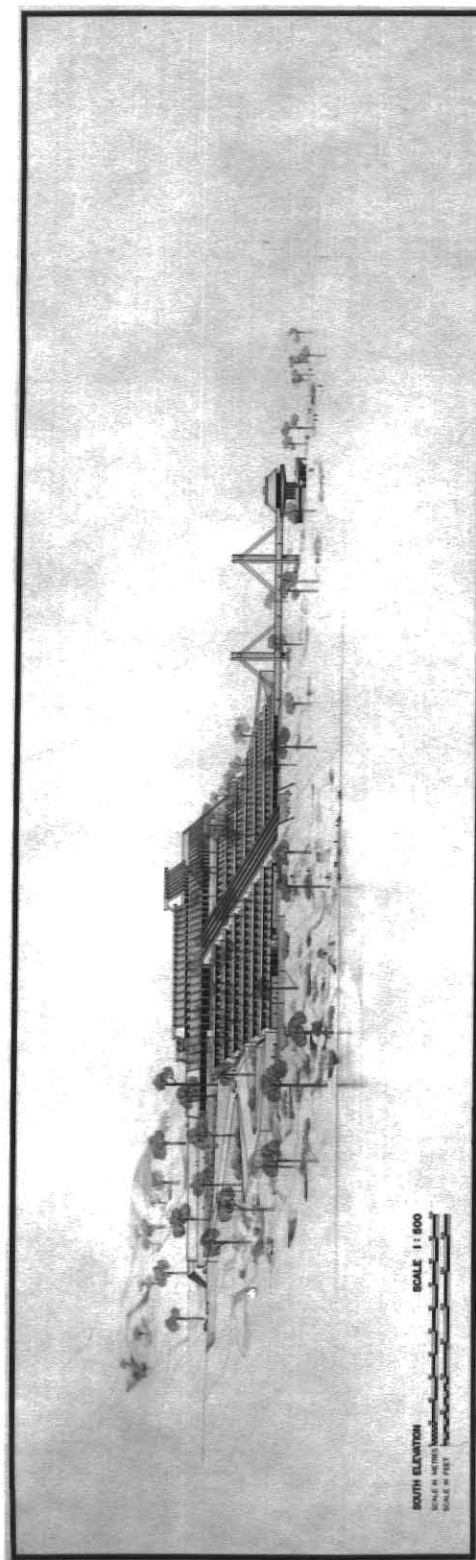


FIG. 22

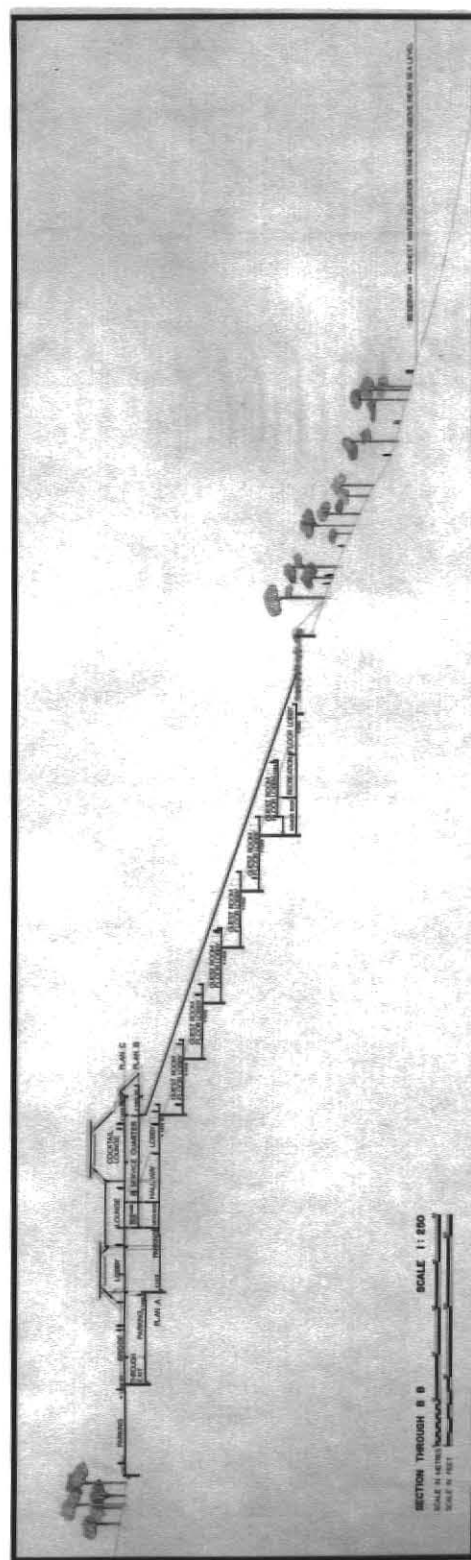


FIG. 23

PLATE XVI

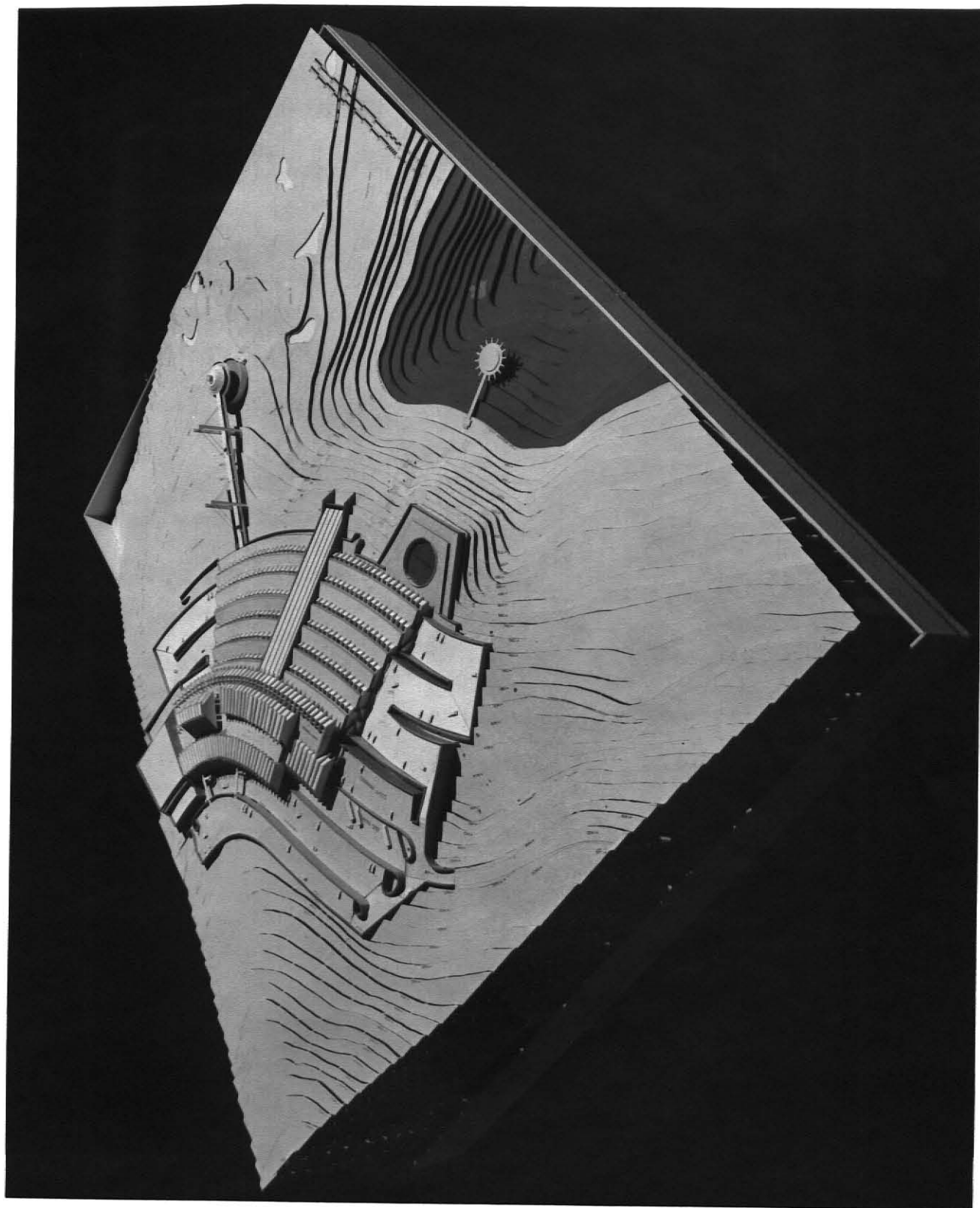


FIG. 24

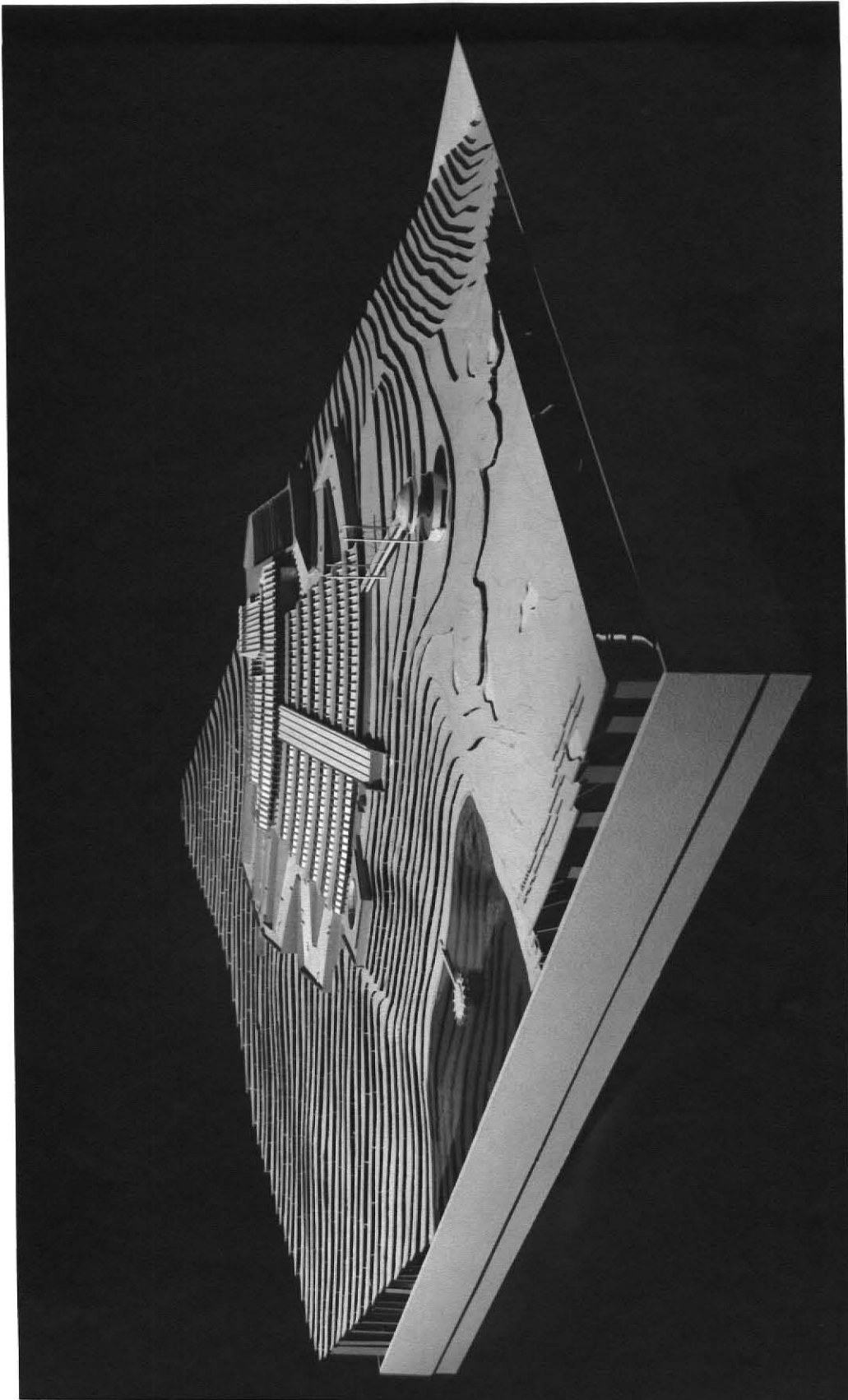


FIG. 25

PLATE XVIII



FIG. 26

PLATE XIX

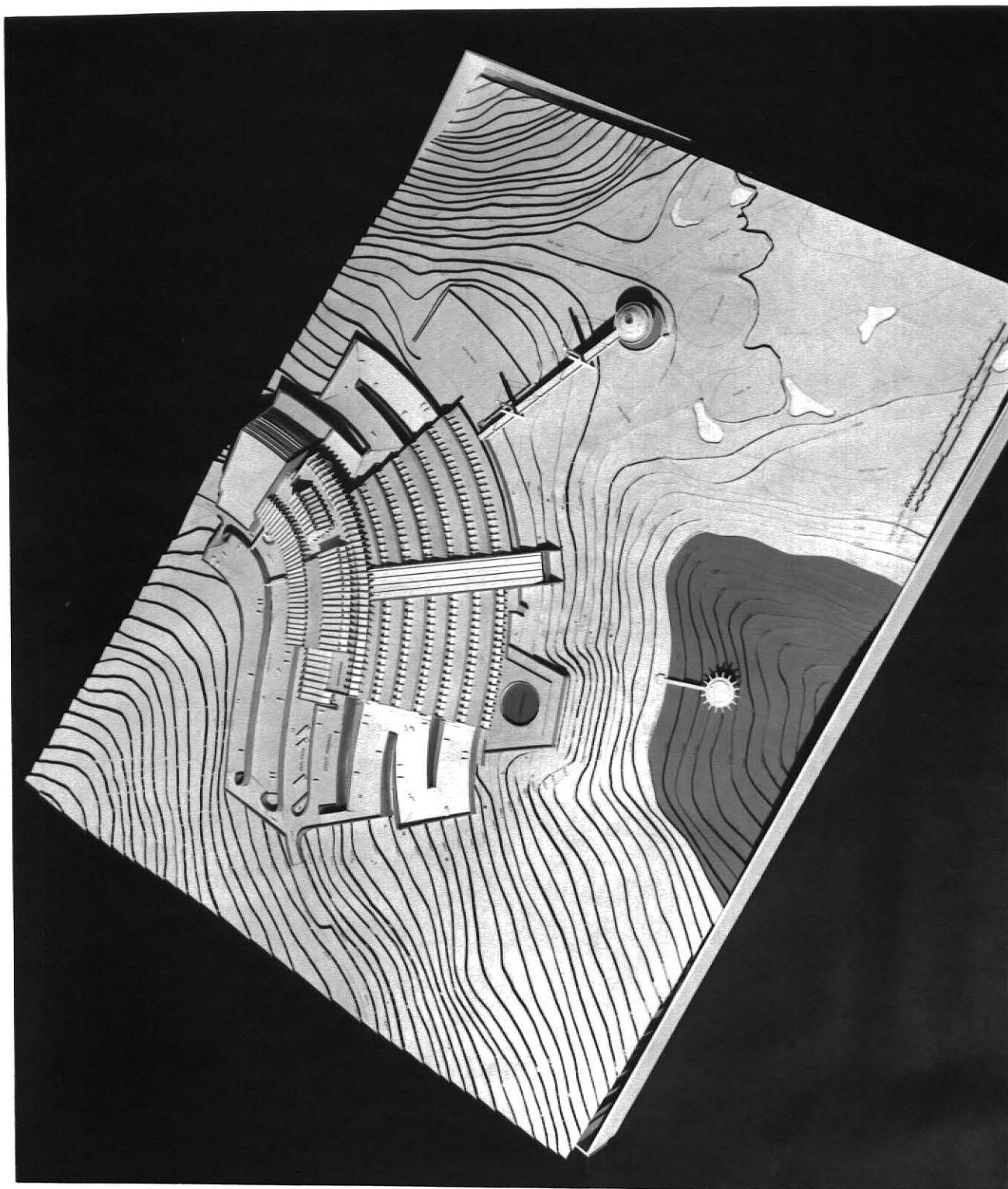


FIG. 27

PLATE XX

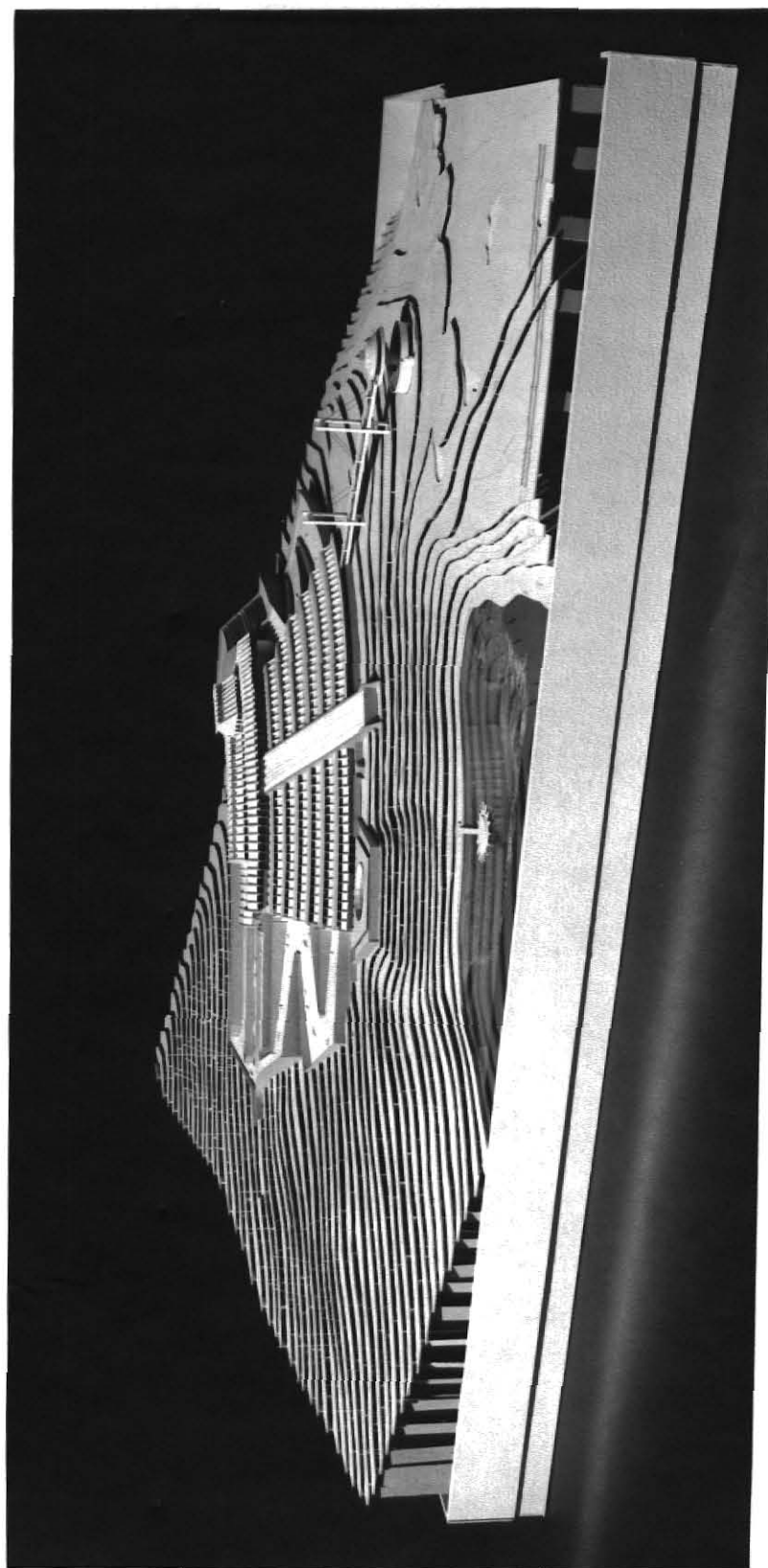


FIG. 28

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V. Chayachinda

A MOUNTAIN RESORT ABOVE CHIENG-MAI, THAILAND

by

VERACHAI CHAYACHINDA

B. Arch., Chulalongkorn University
Bangkok, Thailand, 1968

AN ABSTRACT OF A MASTER'S THESIS

submitted in partial fulfillment of the

requirements for the degree

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KANSAS STATE UNIVERSITY
Manhattan, Kansas

1971

Tourist industry of Thailand is at a stage of rapid development. It has become a strong and growing source of the nation's income in the last few years. The tourist organization of Thailand is trying to help expand the tourist activities from Bangkok, the capital and the major port, to all other parts of the country. Chiang-Mai is considered a center of the tourist industry of the northern part for its strong qualifications.

Among the problems being solved is the quantity of the qualified tourist hotel rooms in Chiang-Mai. The study shows the shortage of those available at the present time and the increasing demand in the future.

The project, a mountain resort, is one of the answers to what facilities are needed to make Chiang-Mai an ideal place for accomodating the tourist industry. The resort will provide the city a good number of tourist hotel rooms and at the same time, with its pleasant and enjoyable environment, it would add some aspects to those that already exist in Chiang-Mai. The combination would, hopefully, draw more attention from the world's tourists.

The substance of the project starts with the first three chapters which include the brief introduction to Thailand and a discussion of the city of Chiang-Mai becoming the center of the tourist industry in the northern part of the country, the major problems to be solved, and the solutions of the problems.

The fourth chapter is the explanation of the project program of a mountain resort which would be an answer to what is most needed for Chieng-Mai, the selection of the site and the development of the project which could benefit the city and the tourist industry.

The contents in the last two chapters include the architect's concept governing the creation of this architectural design and the study of the existing environment, its particular parts which should be maintained, controlled, or changed to meet people's desires, and how these objectives could be accomplished.

The last part of the project is the presentation of the design. The architect has expressed his ideas through the architectural drawings and one scale model.