MAGIC AND SCIENCE
IN
WESTERN YUNNAN

BY

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INSTITUTE OF PACIFIC RELATIONS
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Social Change in Southwest China - Case Study 3

MAGIC AND SCIENCE IN WESTERN YUNNAN

The Problem of Introducing Scientific Medicine in a Rustic Community

By

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FOREWORD

This is an intimate study of popular reactions to a cholera epidemic in a small rural town of Western Yunnan; but it is also something more. There was no panic; nor was the community coerced by an efficient public health service into the adoption of modern sanitary methods. Instead, the author found that many, even among the most ignorant, trusted the practitioners of modern medicine, had themselves inoculated and followed the hygienic prescriptions; he found that many of the best educated, men who had made money and had held public office, gave liberal support to the traditional measures taken to appease the gods. Reliance on prayer and reliance on modern preventive medicine did not divide the community; both were diffused over members of all classes and vocational groups.

It was this phenomenon, confirming previous observations made at the Peking Union Medical College, which set the writer to dig more deeply for an understanding of the processes by which old and new reliances become merged in the folk mind to form an integrated pattern of beliefs and rules of behavior. Prepared for this task by a thorough knowledge of the pertinent literature, he widened his inquiry, but testing each hypothesis against the concrete facts of the local epidemic situation, to encompass the impact of modern science as such upon a pre-industrial culture.

In one sense, the nature of that impact is much the same in rural China as it is in some rural area of the West that has not yet been touched to any extent by modern civilization. Who does not know a social worker, a public health officer, or an agent of an agricultural extension department, who tries in vain to graft some proven scientific practice, result of much laboratory experiment and record-keeping, upon a system of established practices that rest on tradition and on faith? Such a man fails, not as he is wont to tell us, because of the resistance which he meets but much more because those who do not resist the results of scientific research absorb them in the total body of their reliances, making no clear distinction between rational knowledge and their heritage of mystic beliefs. In accepting a new practice they transform it to the extent necessitated by its absorption in the established body of traditions. Thus medicine and magic, in the interactions of a community distributed over a wide range of familiarity with old and new, become amalgamated. The old rites slowly change their form; the new norms are filled with the old content of folk experience.

A local study that leads tentatively to such far-reaching conclusions had, of course, even larger implications, as the author is not slow to point out. He challenges many of the prevalent policies of social reformers, both Chinese and foreign, who try to graft scientifically informed modern practices upon a social life ruled by tradition or superstition. He has the key, he thinks, to the explanation of much failure in Chinese efforts at agricultural improvement and education as well as medicine and public health. Even anthropologists (and he names some luminaries of that discipline) do not always realize the value of the body of traditions as the only means by which the community can - and in the minds of some of its leaders quite consciously, as he found, does - provide itself with that psychological stability which it needs both in normal times and in times of crisis.

The enforcement of public health measures through use of the state's police power may show transitory results; but if the desired practices (in such

matters as cleanliness or use of pure drinking water) are not integrated in the fabric of the established code as essential parts of a continuing usage, such measures are short-lived. People fall back into their old ways, not because they are stupid or reactionary, but because there is no satisfaction in fragments of information or prescription from a world that is not their own.

The individualistic approach, so dear to the Western social reformer, also falls short of the real task. It attempts to reform a community or a whole society by rescuing a few from the trammels of ancient superstitions so that they may become leaders among their fellows in their striving for a better life. All they achieve, very often, is to estrange such persons altogether from their native community.

Success, according to our author, beckons when the propagators of new ideas and better practices cease to regard themselves as engaged in a perpetual conflict with outdated uses and pre-scientific habits of mind. Instead of asking people to change their ways, the public health officer and others like him should accept these ways with the respect due to a folk wisdom handed down through the generations. Social custom is not a dead thing to be reconstructed or added to, but has a life that permeates all its parts, so that progress can be achieved only through the development of the whole.

The author's attitude, thus, is somewhat different from that which we in the West have come to expect in Western-trained Chinese sociologists. He is not averse, as many of them are - or used to be - to discuss beliefs and customs which, when they manifest themselves in contemporary China, have too often been used by foreign writers to libel the Chinese people as hopelessly given over to superstition and incapable of rational thinking. These beliefs and customs, these behavior forms so strikingly in contrast with rationally conceived social codes, are precisely what we must study if the old failures of the modernist are not to be endlessly repeated.

There is no cultural isolationism here, nor a desire to retreat from modern reality, as so many European scholars have done in this generation, in a mystic appeal to blood and soil. On the contrary, Dr. Hsu goes farther than most of his contemporaries in demanding for China a complete social freedom as the essential condition of any sort of advance.

> "The development of support for public health measures and scientific medicine depends ultimately upon a sound mental attitude. And a sound mental attitude depends upon the general training in sound scientific reasoning. In a society of slavery, or of caste, or of fate, even with all the industrial development in the world, sound scientific reasoning can never really hope to take a permanent root."

Therefore he looks to a free and industrialized society and the kind of education which it alone affords as the crucible in which the conflict between magic and modern science will find its natural and inevitable solution - not in the victory of science over tradition but in the interweaving of both in a new pattern of customs and uses, of habits and ideas.

The present monograph is one of a number of intensive recent studies made in war-time China by a group of scholars concerned to implement

both theory and the shaping of practical programs of reform with concrete, even graphic, data on current social situations. All of them significantly illustrate widely prevalent conditions of social change. In each instance only the author is responsible for statements of fact and opinion contained in his contribution. The present study was first distributed in mimeographed form for private circulation in China through the generous assistance of the British Consulate-General in Kunming and the Branch of the Press Attaché's Office of the British Embassy in that city. The present edition, by the International Secretariat of the Institute of Pacific Relations, is intended, more especially, for distribution in North America.

W. L. HOLLAND
Research Secretary

September, 1943

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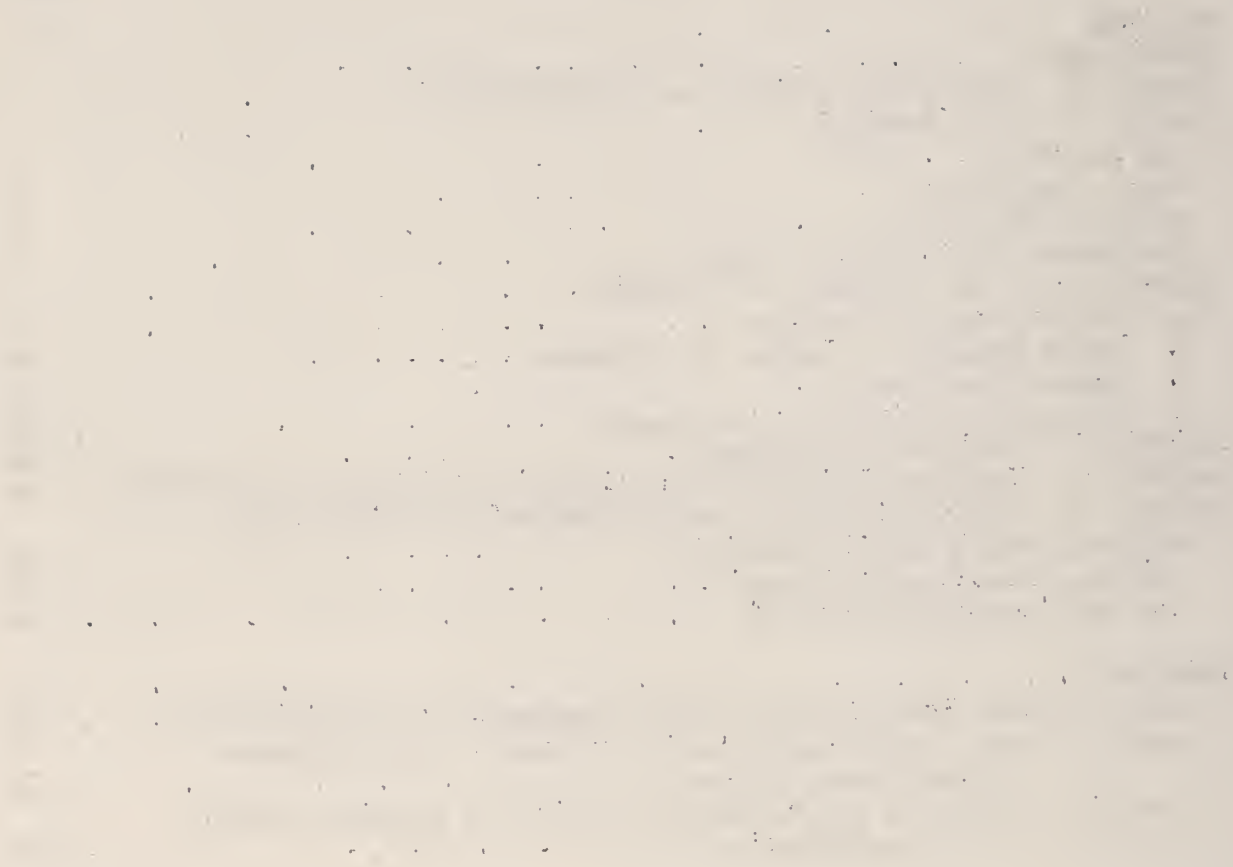

INTRODUCTION

It hardly needs to be pointed out that "superstition" and magic rule the life and conduct in pre-industrial communities the world over - much more than in modern industrialized communities. One use of such "superstition" and magic is for the cure or prevention of disease.(1) Such practices and ideas have been one of the main targets of Chinese reform in recent years. The current assumptions on this matter are that (1) "superstition" and magic have to be replaced entirely by scientific knowledge and practices - there can be no half way and (2) the chief problem confronting the reformer and the farmer alike is that of finance. When there is enough money to enable the people to acquire "better" things (e.g. modern measures of sanitation) to take the place of the old practices, the "better" things will prevail. This, it is said, is especially true if the practice concerned has little or nothing to do with moral standards.

Are these assumptions sound and workable? What is the nature of magic and "superstition"? What do modern social scientists have to say about this problem?

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(1) Magic refers to the practice and "superstition" to the ideas behind the practice. The author is not concerned with a one-hundred percent distinction between magic and "superstition" on the one hand or between modern medicine and ideas about health on the other. Such a distinction, if carried to extreme limits, will, as far as one can see, be incapable of satisfactory application to facts; for by magic and "superstition" scientists refer to practices and beliefs which assume a causal relationship between two or more phenomena that is not demonstrable by any known methods of science. It is then evident that, considering the nature and limitations of modern science, there must be facts which are as yet not scientifically established, just as there have always been "facts" which have later turned out to be false assumptions. In other words, the respective domains of scientific knowledge and magical beliefs are not permanent but change as scientific methods gradually penetrate into the mysterious interior of reality. But for practical purposes, unless we wish to be over-argumentative, we shall have no difficulty in distinguishing the main body of scientific knowledge from the main body of magical beliefs. For example, no one will reasonably deny at present that burning amulets as a war effort is a magical practice just as no one will reasonably deny at present that the scientific way of treating most cancerous growths is by their surgical removal. Moreover, the distinction between magic and religion involves questions which do not concern us here.

CHAPTER I

THE NATURE OF MAGIC AND "SUPERSTITION"

The point of departure is that many reformers have failed to realize that magic and "superstition" are part and parcel of the psycho-social-economic context in which they have arisen, just as present-day Western medicine and sanitary ideas (and science in general) have their appropriate psycho-social-economic background. If modern social scientists have made one definitive contribution on the nature of society it is that there is no isolated individual just as there is no isolated institution. The individual grows up and becomes a part of a group or groups deeply immersed in a body of traditions and rules of conduct. The institution is formed and functions among other institutions closely related to it and interwoven with each other.

This means that just as the individual cannot be removed from the group or groups in which he is a member without more or less serious consequences to the group or groups, the institution or established practice cannot be put out of existence without large or small disturbances, leading ultimately to breakdowns, to the group of institutions among which it functions as a part. What is more, while the individual may be removed from his group comparatively easily by force (such as imprisonment, exile, execution or excommunication), the removal of an institution or established practice (such as by iconoclastic destruction, governmental orders, or financial power) presents a far more difficult proposition, because an institution usually is deeply entrenched in a large number of minds. Under such circumstances any attempt at an outright omission of one institution without regard for its social context, even if another one is superior and well carved out to take its place, is unlikely to succeed.

Or we may review the matter in a somewhat different set of terminology. Modern anthropologists generally agree with Professor Malinowski that magic fills the gaps of science, i.e. magical practices occur at places where scientific knowledge is weakest. In other words, magical practices, which are the characteristic expression of one type of institutions, make up the vacancy left or unfilled by scientific practices, which are the characteristic expression of another type of institutions. If this conclusion is unconditionally true to the nature of the relation between magic and science in all states of a culture, then we should expect that when the points of weakness in our scientific knowledge are no longer weak magical practices can be replaced with a minimum of difficulties by the incoming practices based upon the newly discovered knowledge of science. To bring the argument home, if the conclusion that magic fills the gaps of science can unconditionally stand as it is, then when a scientific procedure which is known to be effective in the larger world can solve a medical problem which in a local community has usually been solved by magical means, the new procedure will automatically replace the traditional practice. But this prediction is not realized in fact, as may be seen in the case of "West Town",(2) a local community in the Tali area, Yunnan, where the author has been particularly fortunate in observing from beginning to end a cholera epidemic - how it affected the people, what preventive and curative measures were applied, and what ideas appeared to motivate their behavior.

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(2) For purposes of the present paper the town is called "West Town," hereafter to be written without the quotation mark. The names of persons and places of the locality are also altered.

CHAPTER II

THE COMMUNITY

The Locality

West Town is within a day's journey on foot or horseback from Hsiakuan, the nearest point on the Burma Road. It has Er Hai (a lake) to one side and Ta'ang Shan, a mountain about 14,000 feet above sea level, to the other side. The general level of the ground in this part is about 6,700 feet above sea level. The chief occupation of the area is agriculture, rice being the staple crop. But trading in various forms is common both as a subsidiary and as the chief occupation. The trading includes both local exchanges in various markets and large-scale commercial adventures into the outer world. West Town is built on this peculiar form of commercialism.(3)

The locality is a small village or town, being under the jurisdiction of the district government of Tali. It has a population of about 1,000 households and about 8,000 people. Shops are not numerous, mostly groceries, cloth stores and a few food shops. There are a few native dispensaries and one apparently modern dispensary. The chief markets of exchange are the periodic fairs which take place both in and near the town.

The town is not walled. Some years ago four gates were erected which shut the town from the outlying villages at the ends of the two main thoroughfares of the town, which cross each other. At night the streets are patroled by a town-hired watchman. But the population of the town is not only confined to within these gates. Near the town are at least nine more or less clearly marked out-clusters of houses, each of which has a name as a village. Within the four gates, each street, or each section of a street, is also called a village.

People and Culture

The town with its nine near-by and several more distant villages is under the authority of a Chen-Chang (head of a sub-district) appointed by and under the direction of the governor of the district (Hsien Chang) of Tali. A small police force, supported by the town, maintains law and order. Generally speaking, the town and its satellite villages is one of the Min Chia colonies in Yunnan. But all inhabitants in the town and in all the nine near-by villages except one insists on their Chinese origin, and will be seriously offended if suggestions to the contrary are made to them. This controversial point is not the concern of this paper. It suffices here to observe that all except the inhabitants in that one village who profess to be Min Chias bind their women's feet and wear Chinese dress. But all speak Min Chia as their mother-tongue. Most men and a few women, however, speak Chinese (with a strong local accent) as well. Here the social differences between men and women is carried to its extreme. Virginity of unmarried women and chastity of married women are heavily guarded and valued. Women work while men enjoy light conversation over a cup of tea or beside a tray with an opium-smoking pipe.

(3) For a general description of the Tali area (the geographical conditions of Tali and its environs) the reader may look up C.P. Fitzgerald, The Tower of Five Glories, London, 1941. As a serious scientific effort the book is a hotchpotch of hearsay and observation which disgraces rather than deserves the name of ethnology. This will be dealt with elsewhere in extenso.

Ancestor worship is institutionalized to an amazing extent. Not only the very large and wealthy families and clans but also the ordinary well-to-do ones have a separate ancestral temple. All go to great lengths and expenses to ensure good sites for family graveyards according to geomancy. In order to make sure that the fortune of the family will be on the up all the time it is the custom to change graveyards to new sites when the old ones have become suspect. Old imperial honors granted from Peking have been and are still highly valued. Walking through the town and its villages one comes upon numerous plaques of honor on the portals to many family homes.

Not many years ago, before the advent of the power of the Central Government into the province, opium growing was general. George B. Cressey prints in his book, China's Geographical Foundations (1934) a photograph showing "Fields of Opium Poppy Outside the Walls of Yunnanfu" (Kunming). This sight is no longer common today, especially in the more communicable parts. In the remoter interior of the province, the author has been told, opium is still being grown. Opium smoking is certainly very widespread everywhere in the province. Opium-growing in this town and its satellite villages was formerly the source of income for many families, and the trading of the commodity has enabled many families to become wealthy, indeed. The prohibition of its plantation has caused many small farmers to sigh about the passed "golden age," but has not prevented the wealthy families from making even more profit out of the now scarcer supply. These facts have at least been partly responsible for the wealth of West Town.

West Town contains a disporportionately large number of wealthy families. These families are not mere local stars. They are rather outstanding even in the larger provincial cities and in Kunming. One year ago the top of these families performed a funeral that lasted over two months and cost about one million national dollars. Even the lesser ones are also considerable. Soon after the fabulous funeral the wedding of the young master of a small one-room cloth store in the town cost ten thousand national dollars while the wages of laborers in the town were still about two or three dollars a day with board.

This wealth has perhaps given rise to the over-emphasis on the ancient ways as regards imperial honors, ancestor worship and sexual differences. But in recent years a few wealthy families have also supported in the town three schools, a hospital and a public library. The hospital has about twenty beds, one graduate nurse, two medical officers (both M.D.'s, one was trained in Peiping Union Medical College), a number of assistant nurses and a nursing training class. It has arrangement for free medicine and hospitalization for the poor. The schools are: one middle school, one primary school divided into two parts, and one normal school. The three schools combined have a total enrollment of about 1,400. The first and second schools are co-educational. The principal of the middle school is a local man who has studied in Ts'ing Hwa University, Peiping.

Influences from Outside

Before the days of the Burma Road, motor transportation was scarcely known to this region and communication with Kunming took about two or three weeks one way. After the opening of the Burma Road the town was soon connected with the Road by a sort of badly constructed highway. But the principal mode of travelling is still pack horses and "chairs" (Hwa Kan). Since about two years ago there has been a third-class post office receiving mail from Kunming once in two days.

Even before the beginning of the present war, West Town had always had its share of outside influence through sons of the local families who went away to study in Peiping, Shanghai, Hongkong, Indo-China and even Japan and the United States. But in the hands of the locals these returned young persons were helpless in innovation. The tale is still vivid of a young returner from Hongkong having had a bucket of human stools poured over his head and that of his newly-wed while walking on the street hand in hand. In the custom of the locality such liberty was not allowed and the young couple had no redress of the rough treatment. Four years of war have made West Town somewhat different in appearance. There is a missionary college from Central China, which has taken refuge in a Confucian Temple and a Buddhist Temple just outside the center of the town. The students are mainly from provinces other than Yunnan, and the faculty and staff members consist of English and American missionaries besides Chinese. With these outsiders come freer relations between the sexes, preachings of their church, their wireless news, their medical care, their manner of dress, etc. Besides the church in this missionary college there are two other churches. One of the latter is supported by the American Episcopal Mission and the other by the theological seminary which is a guest institution to the college. A third group of people who call themselves "The Little Flock" also has considerable activity. This group sends out preachers to fraternize with the local people.

The Normal Habits of the People

The Yearly Cycle of Observances and Festivals - Spirits and gods are the main source of protection from any trouble for practically all of the people. Therefore, the yearly cycle of life is largely a yearly cycle, according to the lunnar calendar, of offerings to the spirits of gods. The following table shows the major ritual observances during the year:

Lunar Month	Date	Name of the Occasion
1st	1st	Spring Festival. Incense burned and food offered to the Gods of Wealth and the Goddess of Kuan Yin
"	9th	Birthday of Yu Hwang
"	15th	" " T'ien Kuan
2nd	3rd	" " Wen Ch'ang
"	8th	Ritual parade of Buddha through the town
"	15th	Birthday of Lao Chun
"	19th	" " Kuan Yin
3rd	3rd	" " Hsuan Ti
"	Ch'ing Ming	Visiting ancestral graveyards
"	15th	Birthday of the God of Wealth
"	16th	" " " " " Mountains
"	20th	" " " Goddess of Niang Niang
"	28th	" " Gung Yueh
4th	8th	" " Tai Tze
"	15th	" " God of Fire
"	20th	" " Yuan Shih
5th	5th	Tuan Wu Festival
6th	6th	Birthday of the Southern Dipper (Nan Tou)
"	24th	" " Military Sages
7th	7th	" " K'uei Hsing
"	14th	Ancestor Worship
"	15th	Birthday of the God of Earth

Lunar Month	Date	Name of the Occasion
7th	19th	Birthday of the God of Pao Miao
8th	1st	" " Chin Chia
"	3rd	" " The Kitchen God
"	15th	The Moon Festival (Mid-Autumn Festival)
"	27th	Birthday of Confucius
9th	9th	" " Tou Mu
10th	15th	" " the God of Water
10th	(Some time)	Visiting ancestral graveyards
11th	19th	Birthday of Sun God
12th	8th	" " Pa Ch'a
"	23rd	The God of Kitchen reports to Heaven
"	30th	New Year Eve. Offerings to various gods.

Each of the above is an occasion of more less festivity in the form of offerings and feasting among those gathered in a small area of the town or from the entire village. These gatherings may either be purely male or female. In addition there are other occasions of more or less ritual significance. Scattered over the entire area are many temples of local patron gods (Pen Chu). Each of these gods governs the welfare of an area or of a village, has a surname, name, and birthday, such as the third of the first Moon, the 14th and 19th of the 4th Moon, etc. Each of these birthdays is an occasion of offerings, celebration and feasting at the temple for people of the area in which the particular patron god governs. On the first and fifteenth days of every month incense and food will be offered to these gods too. Then, three days after the birth of a child incense and food will be offered to these gods. On any day when a family is slaughtering a pig, incense will also be burned on family portals. Often a family calls in a priest to pray and read the scriptures for a day. This is called a Prayer for Blessing (peacefulness) and is performed on a small altar just outside of the family wall, in the street.

There are other occasions of emergency, as when a member of a family is seriously ill. On such occasions ritual offerings are usually made to one or other of the gods following advice given by a witch woman or a fortune teller. Finally, death of a family member brings with it, of course, many occasions of ritual significance.(4)

Living Habits as regards Cleanliness. - There is no idea of personal hygiene or of public health as the West understands these terms. Personal habits of the people are like those in most other villages in China: drinking of unboiled water, eating exposed and uncooked food and raw vegetables, considering flies on food as a matter of course,(5) and taking no bath. Passing through West Town and its villages are many brooks formed by water running down from the gorges of Ts'an Shan. Usually on one or both sides of every street there are such streams. Each stream thus passes through many villages before finally reaching the lake. Such streams are the main places for washing not only rice and vegetables, meat and fish before cooking but also of clothes and night soil containers. Once the wife of a friend of the author

(4) The author does not think that the above list exhausts the total number of ritual occasions for inhabitants of this community. Walking through the streets during any evening the author would see at least several clusters of burning incense and ashes of burned paper money for spirits. The ones given are however the major occasions.

(5) Flies on food are called "food flies" without which a meal is regarded as improper.

offended a local woman who was dispatching milk because the friend's wife washed the milk woman's measuring bowl before dipping it into the milk tin. The milk woman's reason was that the bowl was carried on her body, just next to her under-clothes so it could not be dirty at all.

Ideas about public health are lacking. Sickly dogs are seen everywhere; donkeys, horses and mules make a mess freely on every street. Children and adults enjoy their conveniences in the main thoroughfares or around any corner of any lane. No one even bothers to clean up the streets. Often poor farmers or their children come to the streets to gather up the human and animal excretion for fertilizer in the fields. About three years ago the missionary college and the local middle school organized a joint campaign on public hygiene. Teachers and students of both institutions carried out a general cleaning up of all the streets of the town and killed about fifty homeless and sickly dogs. Quite a number of the local inhabitants lent support to the effort. At the same time public lectures were given in the main streets by some of the students on the importance and significance of the campaign. For a period of time following the campaign the town was free from obvious dirt heaps, etc. But the old way of life returned gradually. Today no one even recalls this campaign.

CHAPTER III

THE COMMUNITY IN DISTRESS

The cholera epidemic came to West Town as to other localities in the area from Hsia Kuan on the Burma Road, and spread with the stream of refugees that steadily flowed into the town and villages.(6) It affected a wide area. In West Town it began at about the beginning of the Fourth Moon (about the tenth of May, 1942) and ended at about the end of the same month (about the tenth of June, 1942). Only a few deaths occurred at first; then heavier tolls were taken of the population. For a period of time even in the town itself there were six or seven deaths a day. The price of coffins rose from five hundred dollars to two or three thousand dollars each, and later coffins were practically unobtainable. Carpenters worked day and night. Funeral processions of various kinds became a common every-day sight. At night the streets, unlike before the onset of the epidemic, were practically empty. Darkness and silence ruled everywhere except in carpenters' shops where much activity was in evidence.

A. Cholera Prayer Meetings

The authority of the missionary college urged its students and faculty members to be injected immediately when two cases of cholera appeared in the local hospital. But the general populace took little notice of it until about the seventh of the month. Prayer meetings then took place one after another. Such meetings took place not only in the center of the town but also in all the surrounding villages. Within the confines of the town at least several areas had such prayer meetings, in two places twice. Some of these are big events, employing at least three Taoist priests and three or four musicians in addition to a larger number of volunteer ushers and officers from the area. Others are smaller events with only one priest and no musician, in addition to a small number of ushers and officers. In each case there is a big or small altar covered with canvas, on which are displayed tablets or pictures of the various gods, the priests paraphernalia and quantities of offering to the gods. In the case of the one-priest affair the meeting usually lasted for one or two days. The larger affairs lasted three days and four nights each. The author had opportunity to watch such prayer meetings in several surrounding villages in addition to the those in the town itself. The following list gives the area and villages according to the order of the appearance of the prayer meetings: (See Diagram, Names of areas being represented by alphabet letters, arabic numbers indicate order of appearance of the prayer meetings).

Area or Village by Order of the Appearance of the Meeting.	Date (Lunar Calendar)	Number of Priests Engaged
1. A	7,8,9, 4th Moon	1 priest
2. B	About 9, 4th Moon	1 "
3. C	" 9, " "	1 "
4. D	8,9,10, " "	3 "
5. E	9,10, " "	1 "
6. F	10,11,12 " "	3 "
6. G	10,11, " "	1 "
7. H	12,13, " "	1 "

(6) When Burma fell.

Area or Village by Order of the Appearance of the Meetings	Date (Lunar) Calendar		Number of Priests Engaged
8. I	15,16,17,	4th Month	3 Priests
9. J	16,17,18	" "	(T'an Ching only)
9. K	16,17,18,19,	4th Moon	3 (with Wen God ceremony)
10. L	21,22,	" "	1
11. M	About 20,	" "	3
12. N	22,23,24,	" "	3
12. O	22,23,	" "	1
13. H	23,24,25,	" "	5 (with Wen God ceremony)
14. P	About 25,	" "	1
15. Q (Prayer and the ceremony of receiving a special goddess)	25,26,27,	" "	3
16. E	1,2,3	5th Moon	5

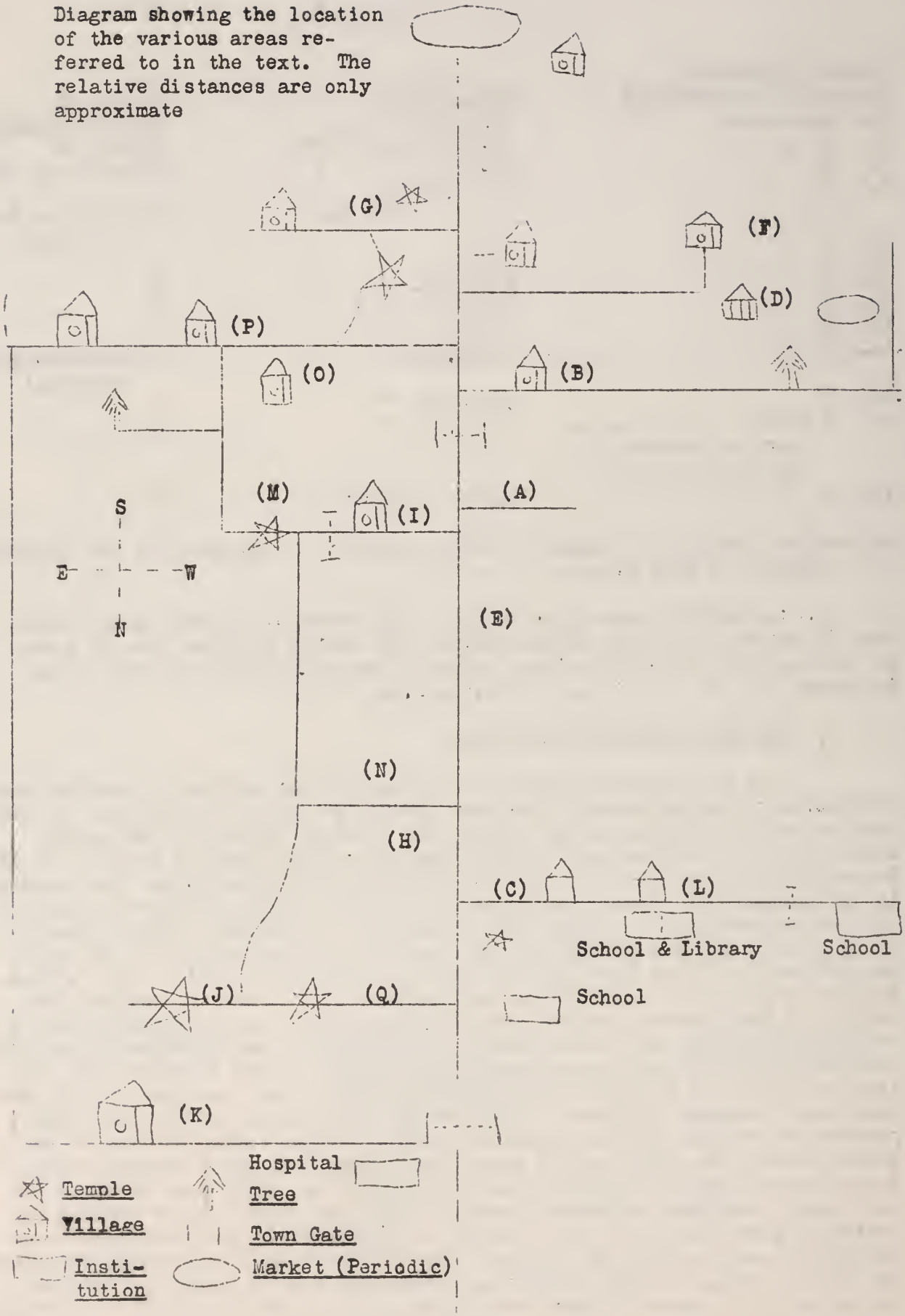
(Altogether nineteen meetings are here recorded. See Diagram for the approximate location of each area.)

A complete description of the rites involved in these prayer meetings is impossible in the present paper. The author proposes here to state in outline form only (1) the main points of the rites, (2) the cost of the meetings, and (3) the meaning of the prayers.

1. The Main Points of the Rites

The most important thing is the work of the priests in reading their scriptures, reciting incantations, and burning petitions to the gods. In the smaller one-priest affairs the reading and reciting is done by the priest alone, with the accompaniment of the sound of a "wood fish" or a bell. In the larger three-priest affairs thisis done in singing and reciting. The singing is accompanied by cymbals, bugles, and stringed instruments played by three or four accompanists who often join in the priests' chorus. This is done by three or four priests taking turns or together, from about 7:00 in the morning to about 11:00 or 12:00 in the evening, stopping for meals or for a pipe. Petition papers are burned to the various gods at one time or another. The burning of such papers involves many strenuous duck steps made in succession by three priests so that their faces are covered with perspiration. Both the scriptures and the petitions state that the people of the locality have deep sins and know that the gods are now showing their anger, but respectfully and tremblingly request the gods to withdraw the punishment, and that the people promise to obey the superior spirits forever. On the second evening of the prayer meeting the chief priest assumes the dress of a chief monk and sits on a lotus flower-shaped seat fixed on a high platform; while many boys and men hold their immediate ancestors' (usually father or mother) paper tablets and gradually push the latter over a cloth "bridge" towards the chief priest, as the latter performs various rituals. This is the ritual of "sitting the lotus" and is for giving blessing to the souls who have died of sudden illness or accidents (as a matter of fact, mostly deaths due to the epidemic). The third night is signified by a ritual spreading of porridge and paper money to homeless (i.e., descendent-less) spirits who may be about the place, along the

Diagram showing the location of the various areas referred to in the text. The relative distances are only approximate



streets leading away from the center of the town to the outer highway. The fourth night is chiefly occupied by rituals concerned with the Wen God (or the God of Epidemics). This god can release and arrest all evil spirits causing any form of epidemics. On this night his image (made of paper on a bamboo frame, about 15 feet high) is carried about in a torch procession formed by the chief priest and music players through the various streets of the town and its surrounding villages. In this way the god will have collected all those evil spirits and at about 1:00 a.m. the image of the god and a dragon boat (also made of paper and bamboo framework) full of paper ingots, rice, and other things are ritually taken out to the main highway about three li west of the town and burned. The Wen or epidemic is then regarded as having been sent away. (Only two prayer meetings include this Wen God ceremony.)

The number of persons engaged in each of these affairs is impressive. In most cases the officers of a meeting are listed on a yellow sheet of paper and posted in advance on a wall near the meeting. The smallest number that came to the author's notice was about 12 and the largest number, as in a meeting which took place at Area I on the Diagram, was 77. A moderate list is as the following:

General Direction	10	Looking after offering	1
Management	8	Treasury	1
Receiving guests	1		
Looking after the food	1 or 2		
Worshipping on the altar	2	Inviting Guests	1
Arranging furniture	2	Cooking rice	3
In charge of incense and candles	1	Boiling tea	1
		Serving feast dishes	4-8
Looking after vinegar and charcoal	1	Serving tea	2-3
		Sprinkling porridge	2

The directors are elders or powerful personalities in the local area who do not actually have a close connection with the work of the meetings. The meetings are run by the managers, who are usually younger than the directors. It is difficult to form a clear picture as to who in fact sponsor these prayer meetings. In the Area I, e.g., some of the managers and elders got together and decided on the prayer meeting after a moment's discussion. In the Area E, one elder, who was later in the list of managers, was the moving spirit; discussion of some of the major points concerning the prayer meeting (such as the site) was first announced by him in a little yellow notice posted on the wall near the center of the street, and the others replied by calling upon him.

A scrutiny of some of the lists of officers in the various meetings reveals that generally speaking the managing, directing and worshipping duties are in the hands of older persons, while the works (cooking, serving food, offering, etc.) are on the shoulders of the younger people, professional or otherwise. The duty of serving tea is always done by boys. But it will be wrong to say that the older people start these prayer meetings. The latter are in the tradition no less than the customary organization in agriculture. Different members of a family may have different duties in, as well as ideas regarding, the sowing and planting of rice, but none of them will have any doubt as to the time, necessity and usual manner of the sowing and planting. So it is with these prayer meetings. Such meetings are such a deep-rooted institution that adult members of the community are familiar with their out-

line to an amazing extent. The author had spoken to many local persons about these prayer meetings, in the beginning of the epidemic as well as after it was over. Not a single adult had any difficulty at all in grasping what was being asked about after the simplest possible reference was made.

In the above list two kinds of officers need a special word. First, the two officers who are in charge of Worshipping on the Altar. These are volunteers who take turns to kneel in front of the gods on the altar during the entire period of the priests' ritual activities. The man on such a duty holds with both of his hands in front of him a special incense bowl containing burning incense powder. In most meetings the duty falls on elderly people who are in the locality all the time. In the Area I, one of these officers was a clerk from the branch office of a governmentally owned savings bank in Paoshan, about 200 kilometers southwest of West Town on the Burma Road. He does not stay home normally. The idea is that he who is on this duty represents the community to show the gods the people's earnestness and sincerity in their appeal.

Secondly, from the latter part of the list it will be clear that there is some feasting. In regular prayer meetings of the community (for example on one of the birthdays of gods) the feasting is usually participated in by all members of the community who have joined the meeting. But in the cholera prayer meetings there is much less feasting. The priests and the music players have to be lavishly fed. So must be most of the volunteer officers. To visitors from this or other areas is served hot tea. Some of the volunteer tea-servers are pupils of the local middle school whose homes are located in the area in which the particular meeting had taken place.

On the walls near all such meetings, and in some cases on the walls of the entire area, are square posters of yellow paper with eight characters in red: "Pray and abstain from evils with all sincerity, clean up and avoid dirt absolutely." At the entrance to the larger prayer meetings, or at the ends of the street leading to them, are large couplets showing that good deeds and earnestness are essential for mobilizing the gods, or that the prayer meetings are a collective effort to propitiate the gods who may decide to forgive sins previously committed by the community.

2. Cost of the Prayer Meetings

In all the prayer meetings expenses are met by voluntary contributions. The managers send out emissaries to solicit contributions, but a large proportion of the contributors send their contributions in money or in kind before beingasked at all. Generally within a local area everybody knows what everybody else is worth, and the contributions are as a general rule proportionate to one's ability to contribute. Sometimes social position in the locality determines the amount one contributes. When the meeting is over the income, with a detailed list of the names of contributors and amounts they have contributed, and expenditures are posted in a public place. Usually the list puts the larger contributor's names first, but again social position of the contributor may be the first consideration. A person's name may appear in the lists of contributors of several prayer meetings just as it may appear in the lists of officers of several prayer meetings. This is either because the person owns shops or houses in the several areas or because his social prestige is important to the success of the meetings in question. In some cases the sum of contribution does not seem to be related at all to the contributor's social position

or to his wealth as compared with others in the same area. Thus two coffin-shop owners in one area (Area E) contributed between them a sum of two thousand and five hundred dollars and are the biggest contributors of the area. The reason is that they have suddenly made a lot of money through the epidemic. In order to make other people feel better and their newly acquired wealth more secure, they deem it best to give generously first to the popular cause.

There are others who refuse to contribute. These do not openly say that they disbelieve the cause but simply play a game of delayed action until the solicitors are tired of them. In none of the local areas is the proportion of such individuals large, and as far as the author is aware, in only three areas are they found at all.

Then as to the actual cost of these meetings. The one meeting which cost the biggest sum took place at the center of the town (Area H). The sum is, in round numbers, fourteen thousand and nine hundred national dollars. The one which cost the least took place in Area B. The sum is about one hundred national dollars. The total publicly announced expenditure for nineteen meetings amounts to about $43,175. NC.

In order to realize the significance or insignificance of this figure it will be necessary to compare it with other figures on financial matters in the community. The average monthly expenditure of a family of three to eleven individuals was, according to a graduate from the refugee missionary college, about one hundred and twenty-five national dollars in the first half of 1940. Using this as a basis, when the rise of prices is taken into consideration, the corresponding amount in the first half of 1942 (when the cholera prayer meetings took place) should be from $548. to $1,096. (both in national currency).(7) It is thus clear that the amount expended on cholera prayers in 1942 would represent the average monthly expenditure of from 39 to 79 families of the locality. It is to be pointed out that, although the locality contains some outstandingly wealthy families which could afford to expend thirty thousand or a million dollars for a funeral the largest individual donation in these prayer meetings that came to the author's notice is two thousand and four hundred dollars. This means that the major part of the funds comes not from a few families but from many families.

On the other side of the picture we may mention that at no time had West Town's populace contributed more than one-fifth of the amount expended

(7) According to An Tze-ming: General Conditions of Economic Conditions in West Town (B.A. thesis, 1940), p. 120, 140 and 141. The number of sample families taken is small, so that the average on the expenditure is bound to be questionable. The figure $250.00 monthly is an impression rather than hard statistical fact. Taking 1936 price as 100, the price for the first half of 1940 was 1,848.38 (p. 141, ibid.), and for the first half of 1942, 8,060 to 16,120. Therefore the average monthly expenditure for the families for the first half of 1942 should be as stated in the text. (The sums are obtained by the following formula: (1) 250:1,848 = X:8,060, or (2) 250:1, 848 = X:16,120). One of the author's students in the same college (Mr Hu Ju-hwai) had made a study of all butchers' families in West Town (May, 1942) and has found that most butchers smoke opium and their average family expenditure about doubles the results of the above calculation. However, this last mentioned study is based upon a special trade. The cost of opium may also have largely been responsible for the much larger average monthly expenditure. No definite conclusion can be drawn from it.

on these cholera prayer meetings to the cause of the War against the national enemy. The wealthiest family of the locality, after spending more than one million dollars on a funeral in West Town, gave fifty thousand dollars from their condolers' presents to the national cause and earned for themselves much publicity in the papers.

An analysis of the items of the expenditures shows that from about one-ninth to one-fourth of the total is paid to the priests and their musical and other assistants; from about one-half to two-thirds is expended on food for human beings as well as for the gods and spirits; and the rest is expended on paper money, incense, candles, fire crackers, paper works (image and dragon boats, etc.) and miscellaneous expenses.

The ordinary priest's wage for a working day is as follows:

> Wage - $55.00; Tobacco - $5.00; rice (one sheng) - worth about $18.00; total - $78.00 NC.

For the chief priest in a prayer meeting the working day wage may be considerably more. In addition to the above he gets a larger share of the rice offered by those who want their newly deceased family members "uplifted" in the spirit world on the second night of the prayer meeting. In the larger meetings such a source of income is considerable. In the prayer meeting which took place in Area E, the author counted nineteen tables ritually "uplifted" on the second night, which meant that the priests would receive nineteen sheng of rice (or about three hundred and eighty dollars) for the meeting alone.

The priest's wage is very impressive when we compare it with the expenditures of the sample families mentioned above and with the wages of other workers in the community. The author only studied the work of the priests in the community to a very limited extent, so cannot say how many days the average priest works during a month. But when we consider the number of ritual occasions stated in Chapter II of this paper, the total number of the population, and the fact that there are not more than a hundred priests in the community(8) (the community refers to the town and its surrounding villages), we shall have a fair idea on the working opportunities of each priest. Now then, if we assume that each priest works for ten days a month, then his monthly income will at least amount to somewhere around five thousand national dollars.(9) The daily wage of a laborer on a farm around West Town, on the other hand, during rice-planting which occurred in the same month as the prayer meetings, was seven dollars to seven dollars and fifty cents a day plus board. That means that the laborer gets about 240 dollars plus food a month during the "busy period" on farms while the priest gets about twenty times that sum or more plus ten days of food a month. Food for a month per person, according to the best standards in West Town, was not more than three or four hundred national dollars during the corresponding period. The distance between the income of the priest and

(8) This figure may not be exact. It was obtained from the estimates of a few informants. The author's attempts at studying the census records of the sub-district government (which are not exact by any means) met with some unsurmounted obstacles at the time.

(9) For ordinary prayers of blessing and in funerals the wage may be less than that in these cholera prayer meetings.

that of the laborers and those sample families studied is large. His monthly income is even more than double the comparatively high income of the butchers. Probably this fact is responsible for making a larger percentage of them opium addicts than they would have been had their economic position been less favorable. The priests of West Town are undoubtedly a privileged class of people.

3. The Meaning of the Prayer Meetings

(a) The Priest's Explanations. - The author has spoken to three officiating priests of these prayer meetings, one of them the most famous priest in the locality, about the meaning of these prayers. Their explanation is the following: The epidemic is caused by evil Wen spirits, spread forth by the Wen God to punish the people for their sinful deeds. The Wen God acts by order of the superior deities. In order to avert the disaster it is necessary to invoke the mercy of superior deities who will require the Wen God to retract the Wen spirits which he let loose earlier on. It is necessary to invoke as many superior deities as possible. The chief deities, worshipped in the center of the main altars, are the San Ch'ing, who are three deities in one, or Lao Tze, the founder of Taoist religion.(10) More deities are invoked each day of the prayer meeting, so that a one-day prayer meeting can invoke only a much smaller number of deities than a two-day prayer meeting. The latter again is less effective than a three-day prayer meeting. Usually three days and four nights are an adequate duration, but for real perfection seven or eight more days will be desirable.

In order to move the deities it is necessary to show first of all that the people of the locality are moral and then that their hearts are absolutely earnest and that their request is extremely pressing. For this reason posters exhorting the people to take care of their moral qualities rather than anything else are essential. For the same reason in each prayer meeting one or more representatives must be chosen to perform a continuous worshipping duty (namely to kneel on the altar with an incense burner in hand during the entire length of the prayer meeting). For the same reason, too, it is necessary for each street as well as each village to have a separate prayer meeting. The petition papers burnt during the prayers are like petitions to our worldly officials. The various amulets and incantations used and performed respectively are special keys which the mortal does not comprehend but to which the deities will readily respond. The loud music by bugles, drum, cymbals, flute, bells, etc., as well as the singing and reading by the priests, are for the deities to hear. The louder the music and voice, the higher will they reach and consequently the easier and more quickly will the deities notice the distress of the area and the more swifty take actions for its relief.

Only a properly "qualified" priest can perform the duty of the prayer, and certain special inborn priests enjoy more such power than others who are less fortunate.

It is not necessary for every prayer meeting to include the "Wen-God-retracting-evil-Wen-spirits" ritual; one or two will be enough to fulfil the purpose. But more ritual actions are always a safer course to take than less ritual actions. The ritual of spreading rice porridge along the streets

(10) It will be interesting to note that this "three deities in one" tale is entirely based upon a traditional novel on deities called Feng Shen Pang (literally, List of Ordained Gods).

leading to the main road away from the town or village is a measure to make sure that all descendant-less spirits and those spirits who are the results of undue or accidental deaths will be sent away so that they will not be able to create trouble or wreck vengeance on innocent souls by means of the epidemic.

(b) The Worshippers' Explanations. - These explanations are neither as precise nor as uniform as that of the priests. The word "worshipper" needs a word of definition. The author cannot decide whose belief is genuine or firmer and whose is false or less firm. He can only use the criterion of external behavior. In this way he regards as worshippers not only those who subscribe financially or by work to these prayer meetings but also those who do not belong to the few agencies of outside influence such as the college, the middle school and the hospital, and who do not exclusively resort to modern measures of sanitation and injection but passively take the prayer meetings as a matter of course.

In all, through personal inquiries, the investigator has collected about sixty statements. From a review of these statements he has been able to distinguish the following categories:

1. One type of statements gives the questioner the impression: "Why ask? Isn't it natural enough?" To this category belongs the answer given by the watcher of a public granary in the Temple of God of Literature in Area F. He said: "When there is general illness, there is prayer meeting." No amount of explanatory effort on the part of the investigator could make him give a different answer. He knows nothing about the prayers uttered by the priests. He is about 45 years of age and has a wife and children. He and his family have not had any injection. Another man, one of about fifty, a dye-shop keeper, is almost blind of trachoma. He was the sole person on worshipping duty in Area E prayer meeting. That means that the man knelt on the altar for three days and four evenings till 12:00 P.M. or later except for brief intermissions. The author had hoped that this man would have much to say about the prayer meeting but was disappointed to receive the following answer: "That (prayer meeting) is because there is Wen Sickness." He would not mention anything about ghosts or spirits at all. When the author pursued his query further, the man simply pulled up his trousers and showed the author his badly wounded knees, while remarking: "You see, both knees are sore from kneeling." The majority of this class of statements refer to the meetings by saying, "This is doing a good deed."

2. A second type of statements is more philosophical. It may be represented by the statement of a cloth and gold dealer of about 38 years of age, who used to travel among several western Yunnan and Burma cities like T'eng Yueh, Mynkyina, and Paoshan, and had returned to West Town just two months before the onset of the epidemic. He contributed the sum of fifteen dollars to the cholera prayer in his street. He said, "The prayer is good for appeasing the spirits so that the Wen will not continue. I give some money because I want to do my part, not for anything else." When the query was pursued further, the man turned to psychological terms: "You outsiders need not fear the epidemic or other catastrophe in a strange locality at all. When I went out into strange places I knew nothing about their gods; I did not fear." "When you walk over a tomb and do not realize that it is a tomb, you are not afraid."

Regarding the doings of the priests in these prayer meetings he said, "Although I know how to read and write a little, I don't know what is

written in their (the priests') books. No scholars do - their Chiao (or creed) is a different one. ... We only pay them, and what they sing or pray are not matters for us to dictate. We just let them do what they deem necessary."

This man's attitude of indifference towards the priests' incantations and scripture-reading represents, in the author's opinion, that of a large number of the inhabitants toward these prayer meetings.

3. The third type of statements implies that who is or who is not struck by the epidemic is all a matter of fate (Chieh Shu), and that there is no really effective way of prevention or cure. It may best be illustrated by a man's statement concerning the medical powder which a Feng's Dispensary gave free of charge to all applicants. This powder is advertised by this dispensary throughout the town as very effective for curing cholera. One of the managers in the prayer meeting in Area E, a man of about forty-five, showed the author a packet of this powder which he carried in his pocket and asked the author to smell it. The stuff smelled like a combination of aromatic and incense. He and another older man agreed that the powder had been effective on some patients and entirely useless on others. Their explanation was that the question was one of fate and not of medicine or anything else. Yet somehow these two men seemed also to think that the medicines and the prayer meetings were not without their favorable effects. To prove the latter they pointed to the fact as evidence that by then (the beginning of the Fifth Moon) the force of the epidemic was gradually slackening.

4. The fourth class of statements gives one or more specific points of explanation. One man, about thirty years of age, a local shop assistant, said that the prayer meetings were for cleaning up the Wen atmosphere (or air). He did not mention spirits or ghosts until the author advanced to him the idea of "catching ghosts" in a doubtful manner. Then he said: "Yes, yes, they (the prayer meetings) are for uplifting and sending away (Ch'ao Tu) all those descendantless ghosts and spirits! There have indeed been too many deaths of late."

Another man, about twenty-five years of age, who is a laborer of some description said that "the prayer meetings are for providing something (like material comfort) for homeless spirits so that they will go away and not harm the living." (The idea is that each of these spirits, like those which are caused by undue deaths, will usually claim a substitute.)

5. The fifth and last class of statements is from individuals who are very much conscious of the outsider's difference in ideas and customs from their own and yet feel that they cannot raise themselves over and above the doings and affairs of their community. Thus a mason, about thirty-two years of age, named Yang, offered the author at first the idea that the prayer meetings were for uplifting and sending away ghosts and spirits which were descendantless, a statement practically the same as that given by the first man illustrating the fourth class of statements. But as the conversation developed the man suddenly smiled and said: "Of course all these are superstitions." (Mi Hsin, the modern Chinese translation of the term).

Some statements from the only remaining Chu Jen in West Town, an aged man of about seventy and a highly honored soul among the populace, are even more striking. He first said that the prayer meetings were for the good of the community. Then he concluded, "Ah, Wen sickness, prayers and

reading of sacred scriptures can keep it away!" "The prayer meetings can clean up the locality" (never mentioned a word about the ghosts or spirits). The author then intentionally echoed in a very affirmative tone: "Of course, the prayer meetings have cleared up the epidemic." Upon hearing this the old man instantly responded: "But all these are simply superstitions." (again Mi Hsin, the modern Chinese translation of the term). The author then explained to him, following Malinowski, that the true effect of these prayers might be to stabilize the community during a crisis, in which case they would have their proper function. He made no comment on the author's explanation. It might be that he failed to comprehend what was being said. It might also be that he understood it but did not know how to reply properly. But he simply went on to say that the meetings were "affairs" of the community, and as a personality of standing in the community he had to patronize them. He also mentioned that the community had this sort of prayer meetings on a large scale only once before, in the seventh year of the Republic (about twenty-three years ago) when another Wen broke out (not cholera, but headache and vomiting). This old man contributed twenty dollars to one prayer meeting and twenty-five dollars to another. (He is not at all wealthy.) He headed the list of directors in the prayer meeting which took place at Area H (center of the town) in which the highest single donation was $2,400.

This class of persons generally express, in one way or another, that they feel happier if they participate in the "affairs" of the community in the proper manner, whatever the outsider thinks about these "affairs". To this class also evidently belong some outstanding citizens of wealth in this community. The L. family, e.g. which is the chief supporter of the hospital and the middle school and the sole owner of the public library, spent over a million dollars for a pompous funeral in the traditional style and was the largest single contributor in at least two prayer meetings (one of which took place at the center of West Town). The R., another wealthy family, is also very much in the same position. A most interesting fact was observed in connection with a certain U. family which used to be the sixth or seventh wealthy family of the locality but which has been going down hill for some time. In a conversation Mrs. U. told the author that her family contributed five hundred national dollars to the cost of the prayer meeting in her street (Area E). But on examination of the list of contributors the author found that her husband's name was only associated with the insignificant sum of one hundred national dollars among donators of much larger sums.

Incidents such as the last reveal that support lent to the prayer meetings is primarily a matter of social prestige, and the individual or family that has not been able to keep up with the expected level feels very much embarrassed.

An analysis of the conditions of these informants gives no definite impression as regards the significance of their age. The author had at first expected to find older people more conservative about the prayer meetings, giving more details, and the younger ones less so. This expectation is not met by the data. It is true that, as stated before, the elders and older people are in charge of the direction-managing and worshipping duties in practically all the prayer meetings. An inspection of some of the prayer meetings in session will also tell us that the spectators standing or sitting about the places of meeting during most hours of the day are either older people or children or older women. But such phenomenon is perhaps natural enough. The middle-aged or other able-bodied men and women have their work in shops, fields, and at home.

Probably the cases are not large enough in number to draw definite conclusions from them. One thing, however, seems fairly certain. This is that, generally speaking, the men who have had experience with the outside world either as travellers or traders, or having read very much about it, or having had intimate contact with the ways of the outsider, tend to be more philosophical and detached about the prayer meetings. Some of them think that all outsiders regard such prayer meetings as superstitions and, in a tone of embarrassment, would not hesitate to brand them as such to the outsider, but in their relations within the community they have to remain faithful to the indigenous ways.

B. Other Measures to Combat the Epidemic

1. T'an Ching

The prayer meetings are not the only steps taken to ward off or conquer the epidemic. While the prayer meetings are being carried on here and there, other things happen as well. The first of these is T'an Ching, or ritual talk on the scriptures. The author is not clear as to the type of scriptures here referred to. On the platform where such exercises take place are the tablets or portraits of Confucius, Laotze and Buddha. The main event on this platform is the playing of music, both wind and string, by amateur volunteers. At intervals some read a kind of scripture which is usually Taoist and not Confucian. In one or two T'an Ching places the music consists of singing to the accompaniment of a three-stringed plucked instrument. They perform just like story singers.

In Area J, T'an Ching took the place of a prayer meeting. In Area H and Area P, it took place at the same time as the prayer meetings. In Area H, the T'an Ching platform is just back of the prayer altar, and in Area P it is opposite the prayer altar.

The explanation given for such T'an Ching meetings seems to be of two kinds: one is that the gods and spirits should be pleased, and to soothe them by some light music (Ya Yueh) is the best. The other explanation is more vague. Both T'an Ching and the prayer meetings are of the same effect - both for the good of the community. It is a gesture of man's repentance so that the gods will withdraw the Wen, or the epidemic, from the community. In more than half of the areas in which prayer meetings took place there were no T'an Ching meetings.

2. Volunteer Advertisements

Soon after the epidemic had started various hand-written or printed posters and advertisements began to appear in the streets. These are of two general categories - those giving actual medicine or methods of cure and those giving advice as regards the prevention of the disaster. The first kind is practically all medicinal and the second kind is mainly moral. Among the first category are either prescriptions for people to copy and then buy the medicine in any native dispensary, or notices of some ready-made mixture which will be given to applicants free of charge. The latter may be obtained from either a private home or a dispensary. The author has been able to collect different prescriptions and have them examined (1) from the point of view of modern medical knowledge with the aid of The Codex of Chinese Drugs(11)

(11) World Book Company, Shanghai, 1934.

and (2) by Dr. F. P. Shen, Professor of Medicine in the National Yunnan University, Kunming. Dr. Shen has also been kind enough to secure for the author the aid of an old Chinese physician (trained in the traditional manner) in identifying certain drugs. The results of this examination are given in the appendix to this paper.

Certain observations may be made on these prescriptions. First, in six out of eight prescriptions we find the item Lophanthus rugosus (Hue Hsiang) (about six to ten grams). This medicine is boiled with other ingredients and the juice thus obtained is drunk. According to both the old Chinese physician and the Codex of Chinese Drugs this medicine is good for stopping vomiting and for improving the digestive function. The latter volume further indicates that the drug is also good for stopping diarrhea abdominal pains, and cholera. The second thing to be observed is that one of the prescriptions which has been considered by one village as most effective contains one item only (Alumen usta or dehydrated potash alum) (composition, $K\,Al(So_4)_2$ (see Part I of Appendix, Prescription No. 2).

Now, according to Manson's Tropical Diseases (edited by Philip H. Manson-Bahr, 1935), one treatment of cholera is as follows:

"Kaolin, or 'bolus alba', as an intestinal astringent in large doses absorbs toxins, thus rendering them inert. It consists of Kaolin, 200 grams (7 ox.) in 400 cc (14 ox.) of water. This is a single dose, but if there is vomiting it may be repeated and sipped in small amounts at a time" (pp. 448-449) (Composition of Kaolin: $Al_2Si_2O_7 \cdot 2H_2O$).

Dr. F. P. Shen informs the author that dehydrated potash alum (alumen usta) if used in the proper manner may serve the same absorptive purpose. He suggests however that in the local prescription the quantity of dehydrated potash alum is rather small (3.1249 gms.) and its dilution in a quantity of boiling water or soup will rather defeat its purpose.

Third, as regards the question of absorption. In the list which gives names of drugs required in two or more of the collected prescriptions we may find that at least seven drugs have to do with absorption, while seven drugs have the property of stopping vomiting or diarrhea. In another prescription which is considered most effective by the local people seven out of fourteen drugs have to do with absorption and eight have to do with stopping vomiting and diarrhea. This means that these drugs would at least be partially effective in beating down cholera. Fourth, some prescriptions are, from the point of view of modern medicine, irrelevent to the desired objective while others are detrimental to the prospect of cure. One example of the latter is the first prescription given in Part I of the Appendix. This prescription, while giving Chlorodynum (which is regarded by the modern physician as effective), also insists on the opening up of finger tips to let out blood (which Dr. Shen has been kind enough to inform the author may cause bad infection and render any further treatment of the patient by serum ineffective because of embolism.)

A word must be devoted to an extra advice contained in one of the posters. This is a prescription which includes Alumen Usta as one among fifteen other drugs, to be ground into powder and inhaled through the nostrils as well as taken in water. At one end of the paper the advertiser gives the following:

"Those who are not sick ought to have anti-cholera injections, so as to prevent themselves from being infected."

The poster is lithographed and the advertiser says that his prescription was received from an "unworldly man" (usually a fairy) in the middle of the late Ch'ing Dynasty when a serious epidemic broke out in Kuei Chow Providence. He also says that his prescription is good for "72 kinds of Sa illness as well as for Sheep-wool Sa, Wen, Spasmatic feet Sa, etc." He calls the present epidemic Sa, but in his extra advice to people not yet attacked he uses the modern term Huo Lan (translation for the term cholera). He signs himself, "An old man of later happiness".

The author has not succeeded in finding out the composition of any of the ready-made cures in powder form, given freely to applicants. The stuff is to be inhaled through the nose or taken in water by mouth. These ready-made cures and the prescriptions are very popular. In Area E the author once met six or seven old officers of the prayer meeting who had in their possession some such powdered drugs given by one of the advertisers. They told the author that they inhaled a pinch of it from time to time as a precautionary measure.

The moral type of posters is usually long. It begins by stressing the importance of good deeds. Then it points out that the God of Wen has descended upon the people on the noon of the Fifth of the Fifth Moon to scrutinize their behavior and will give blessing to those who are good and disaster to those who are evil-hearted. One poster announces that the advice given in it was written in person by Kuan Kung, the Wary God of Wealth and a historical hero of the people (meaning that the words were given by the god when the latter was ritually invited). It says that those who offer incense, read scriptures and keep to vegetarian diet on the first and the fifteenth of every Moon will be free from disasters. In another section of the same poster the author of the poster says that he who after reading what has been stated in the poster will print another ten copies and disseminate them to the public will free his family from the epidemic and he who will print and disseminate 100 copies to the public will free his district from the epidemic; but he who after seeing the poster will do nothing about disseminating it or letting other people know about it will die of vomiting blood.

The reason for the trouble and expense given to such posters and charity in drugs is not complex. It is conceivable that the dispensary which gives out a special cure freely during the crisis may earn a name for itself of advantage to its later business transactions, but in a local community where people know each other intimately such a commercial technique is rather superfluous. The real reason, as far as the author has been able to ascertain, is verbalized in an exaggerated form in the last sentences of the poster just mentioned. Such charity is a kind of good; it goes on to one's "otherworldly" record and will be one more security on one's prosperity and health. This is clearly related in psychology to a fact mentioned in connection with the prayer meetings: There it has been made clear that in combating the epidemic, goodness of the heart and in deeds is essential. To this point indeed most posters allude in a way. In one poster the advertiser addresses the public as "Elders, Uncles, Aunts and Sisters". It is clear that the epidemic has in a way drawn the people closer to each other and revived the communal feeling.

A word is to be said about the sources of these medical and moral prescriptions. The moral ones are usually from some god who "spoke or wrote through a certain unsuspected medium, who lived in such and such a far away place" (only village name given, usually not checkable). The medical ones are of varied sources. One prescription states in the end thatit is from "a famous medical officer in the army", but neither the name of the officer nor the name of the disseminator is given. Another poster is signed by a man named Ho and states that the prescription is taken from the Morning Post, Kunming. A third, which is signed by the "Old man of later happiness", as mentioned before, states that the prescription was received from a fairy in the middle of the Ch'ing Dynasty during a great epidemic in Kuei Chow Province. The other prescriptions state no sources, but on inquiring the author was again and again told by the man in the street, "it is handed down to us from our ancestors or since generations past."

3. Individual Precautions

So far we have dealt with measures that are more or less communal. There are other measures of an individual or family nature, which may or may not bear on the community as a whole. When the epidemic becomes noticeable, practically all families do one of two things: either hang a palm-shaped cactus stalk over the portal to the family home or stamp one or more hand prints on the gates and walls. The latter are secured by dipping the hand in decomposed limestone and then pressing the palm against the object on which the print is desired. The idea behind this practice is simple: The Chinese name for palm-shaped cactus is Fairy Palm, and since the epidemic is caused by evil spirits, the sign of hands of fairies or superior deities will be enough to scare the disease-causing spirits away. The lime hand prints serve the same purpose. There is also a similar but less common practice of drawing a long time line on the walls of each family in their entire lengths. The idea about this is not so clear, but vaguely it is also to scare the spirits away.

A second practice is to draw a semi-circle with lime powder connecting the two front lintels of the family portal. The author has not been able to ascertain whether the practice is of modern origin. Some of the local people who answered his query said that it was to keep out the spirits just as did the palm-shaped cactus stalks. Others said that it was the same idea as the spreading of lime powder in and around toilets in the missionary college and the hospital.

The third measure is the automatic taboo on many varieties of food stuff. Food which is normally served in the streets and eaten cold, like pea-curd and bean-custard (not bean-curd) are not eaten at all because, the local people say, "they make the abdomen cold." For the same reason, any vegetable or fruit which is customarily regarded as "cold-producing" is also tabooed. The list of tabooed foods is as follows: potato (the price of which dropped all of a sudden from three dollars to fifty cents a catty), string beans, turnip, all sour fruit (plums in particular, because they are in season), confections, new wheat flour, fresh meat, fish (the pious will not touch any meat or fish, even preserved [12]. Others are less stringent in their

(12) When a woman goes to prayers on one of the regular ritual days she will wash herself from hair to toe and will not touch meat or fish at all for the day. Not even to handle it.

observances), pumpkin, egg plant, etc. It will be noted that this list includes practically all fresh fruit and vegetables from the field except cabbage, garlic, pepper and a few others.(13)

The fourth measure concerns the washing of clothes and of food stuffs. As stated before, the area is full of streams formed by water running down the mountain side before reaching the lake. As West Town is some distance from the foot of the mountains, most of these streams have run through several villages before reaching West Town. In these streams practically all villagers and residents in West Town wash their clothes, food stuffs before cooking or eating raw, and everything else that wants washing. Since all the villages through which these streams run use them for such purposes, the great danger involved is very apparent. When the epidemic becomes evident, practically all families automatically abstain from using these streams.

When asked about the reason the answer is that the measure is to clean up the area <u>for the gods</u>, because by washing clothes and food in these streams the people will have polluted the water which runs down from the Ts'ang mountains (where the God of Mountains resides) to Er Lake (where the God Dragon and his family reside).

This same reason - to clean up the area for gods - is also applied to the next two things. One is the sweeping up of dirt and the prohibition of animal soil in the streets; the other is that each family heaps up a dump of twigs, etc., in front of its portal and starts a thick smoke which lasts for hours every day. Normally, as we have seen, nobody cares to sweep the streets even within the area in which his own walls extend. The dirt heaps up or scatters about anywhere and the excrements left by animals passing through the streets are only collected by farmers for their store of fertilizer. Now animals are simply not allowed within the confines of the town.

This prohibition is announced in two types of notices: one by the local police bureau and another by the officers in charge of the various prayer meetings. The former puts up a set of notices everywhere in the town which reads as follows:

"Letting loose animals, or throwing about night soil or dirt, is strictly forbidden. The offender will be proseduted without leniency."

Signed (seal), the Experimental
Police Bureau, West Town.
(14th of May, 1942)

The second type of notices appears in every village or section of the town where a cholera prayer meeting is taking place. They usually read as follows:

"Pray and Abstain with all Earnestness,
"Dirt and Uncleanliness are Forbidden."

The smoking dumps in front of family portals are made of twigs, grass,

(13) The word "cold" here used has little to do with the temperature as in the West. It refers to an inner coldness which is only defined traditionally. Dr. Shen (F.P.), professor of medicine in the National Yunnan University, says that what the traditional Chinese call "cold" food is probably diarrhea-causing food.

moxa leaves, barley stalks, pine needles and some dirt swept up from the area in front of each family portal. When the twigs are lit the flame is stopped from shooting out by the other materials which are usually damp. This gives a thick smoke and a kind of fragrance which permeate the air.

As stated above, this smoking and the sweeping of streets are to clean up the area, not for human habitation but for the gods and spirits. They are thus means to a spiritual rather than bodily cleanliness. That this conception has nothing to do with modern ideas of sanitation may be seen from the fact that when a family woman goes to read scriptures or pray in a temple (a practice very common and frequent among elderly women in the entire district), she washes herself clean from hair to toes and will only touch meat or fish after the visit is over. She never takes a bath otherwise. When asked, a woman says that if she is not "clean" she will offend the gods or goddesses to which she is going to pray.

A fifth measure is the use of amulets. While the biggest cholera prayer meeting is taking place at Area H (Center of the town), each family secures an amulet (disseminated by individuals and obtainable at many native dispensaries) and hangs it on the family portal. Then on the fourth evening of the prayer the Wen God "inspects" the entire town and its surrounding villages in a procession consisting of regular policemen, buglers, guards and priests. The guards in this procession take down the amulet from each family portal as the procession passes by and hang it one by one on a driller-like thing in the right hand of the image of the god. They are then burned with the god and the dragon boat mentioned before. These amulets have the function of catching any Wen spirit which may attempt to dash into the family home. The Wen God, who had formerly let them forth, has thus collected them back. But there are other amulets and paraphernalia on family portals. Some of the family portals carry as many as five or six amulets from different sources. Practically all of them are bought from some priest at a price. A study of the elements contained in these amulets is not in order here. Suffice it to say that many of them are reiterations of the desired object (many amulets contain the characters Chieh Chieh, or relieving the disaster) while others write many times such characters as Sun, Fire, Water, Thunder, which usually represent the power to strike at evil spirits.

Following instruction of some priests, some families put one red flag on each lintel of the family portal as well. On both flags are written, "The heavenly priest protect us, diseases are wiped out", or "Fatal disasters vanish". The same ideas are then written on other pieces of red paper and posted on the gates and walls. One such paper says: "The heavenly priest is here, all evil spirits keep away." The families in one village particularly (Area P) hang straw dragons in addition to red flags of cloth on the lintels of their family portals. These, the villagers say, are for scaring away the Wen spirits, too. The presence of straw dragons in this village and their absence in other villages are interesting. It may be because this village is closer to the lake where the dragon god resides.

All these are individual measures of relief or precaution, but the most common and popular form of individual action is to secure "medicine" or "fairy water" from almost any source: temple, sacred spots, private individuals or dispensaries. We have seen some of the prescriptions, notices of charitable medicine, and moral advice posted for the benefit of the public. From the impressive quantity of such posters in the town and the villages and from the fact that many people secure the ready-made medicine given out

freely to applicants we may infer that such doings are not idle anthropological curiosities. We shall now mention the "Fairy Water" from a rock about ten li northwest of Tali and about thirty li away from West Town. The rock with the "water" is called Chiu Mu Ch'uan (or Nine Goddesses Spring) which is situated in a temple called Wu Wei Ssu, (or Do Nothing Temple). All informants, among them several managers of the prayer meeting at Area E, testified to the author that the rock only produced "water" when there was an epidemic and was at all other times dry. As will be clear from the table showing the order of the prayer meetings, the one at Area E occurred at about the end of the epidemic, so when the several managers spoke to the author about this "water" they also pointed out: "You see, now the illness is lessening, so the water from the spring is about finished." Nobody, of course, ever went to check up on this tale. On account of some personal difficulties the author was not able to check on it either. During the entire epidemic this water was carried to West Town on pack horses and was sold at fifty cents a cup. People say that its effectiveness (both for prevention and cure) varies, but no one says that it is useless.

One more fact is to be mentioned in this connection. At the prayer meeting in Area E, the managers (not the priests) gave expression to a novel idea which had not been seen anywhere else during the entire epidemic. The prayer meeting was held in an open square on one side of the street. There were the main altar, the middle altar and then a sort of gate with pine branches and couplets and two national flags. The street was still open to traffic, but just opposite, on the other side of the street, was built another altar-sort of structure. This was an artificial rock with tiny grottoes and elevations, "trees" and flowers in the grottoes and on the elevations; amidst its "trees" and flowers were various wooden, brass and porcelain images of gods and goddesses, (In the center was Buddha. There were two goddesses of Mercy, one wooden and the other porcelain) and dragons cut of paper. Attached to this structure were also several decorative couplets, and arches cut of paper-wrappers of fruit tins. The whole thing was evidently a hotch potch and formless collection created through a moment's fancy on the part of the worshippers. The interesting thing that concerns us here is the incense burner in front of the structure. From inside of this burner a continuous thin line of water welled up and shot into the air before falling into a receptacle on the ground. The device was perfectly simple. It was produced by fixing in the incense burner a tube which led to a barrelful of water on the second floor of the building behind the artificial rock. The water pressure is enough to produce this fountain-like effect. This "fountain" went on during the whole time of the prayer meeting and provided a spectacle for many curious men, women and children. The author was amazed by the following fact at first: One old woman approached the "fountain" with her young grandson. She took out a small cup from her pocket, received a cupful of the water and then drank some of it before letting her grandson finish it. She frowned a little after drinking the water. On being asked about the reason for drinking the stuff she said it was a "fairy water" and could guard its drinker against the epidemic!! The author afterwards noticed more women doing the same. Frankly, at first the author thought that the local people took a playful rather than serious attitude towards this rock structure with its midget fountain, but after observing behavior such as the above he has to modify his first impression. The similarity of the psychological background between the incense ash as medicine from certain temples (a common practice in the culture) is manifest. In a culture where a single almighty deity is inconceivable, any shrine put up by anyone enjoys a spiritual prestige unknown to the modern West.

C. Modern Precautions

The author wishes to make it clear that most of the measures stated above do not happen one after another but rather more or less at about the same time. While all these traditional doings are going on a number of precautions of a distinctly "modern" flavor also come into play. We shall mention first the work of the police. As we have seen, the police put up a set of notices prohibiting dirt and animal soil from being left in the streets from the beginning of the epidemic. They also prohibit the sale of food like pea-curd served cold in the streets. These measures may be based upon a modern idea of prevention of the epidemic, but their behavior in other ways makes the observer feel uncertain about their ideological position. For the police do prohibit not only the above, they also prohibit the sale of raw fruit in the streets, and forcibly moved the meat market from its usual site in Area H or the center of the town, to a place just outside of the town's east gate. There is no other explanation for this measure than that at Area H a prayer meeting took place, and all dealings having to do with killing of life have to be kept away. Not only this, during the entire prayer meeting at Area H, the police force sent two special sentries to keep spectators from coming too close to the altar. And in the Wen God's nocturnal "inspection" of the town and villages a troupe of regular policemen in full equipment formed a part of the procession. Of course, for these duties the policemen were paid extra, and there is a Chinese proverb which says that money can move gods. Still, the position of the police force in this regard is not easy to define. The government of the sub-district (Chen Kung So) takes some steps also. One of their steps is a notice in some villages prohibiting the sale of "raw and cold food stuffs" or of "meat and fish". The other is a joint effort with the local middle school. The two bodies sent out inspectors to all families in the town and many surrounding villages to inspect the cleanliness of the houses and courtyards. Then the inspectors wrote with chalk on the gates of the families "clean", "very clean", "not clean", as the impression might be. They did not, however, take any further steps about the houses that were marked "not clean". The Chen Chang (head of the sub-district) stationed in West Town, enjoyed the admiring remarks passed on his calligraphy by the many spectators.

The second kind of modernized precaution comes from private individuals. We have seen that in one native medical prescription the advertiser advises those who are not yet attacked to take cholera injection. How that advice came to be combined with a traditional prescription is yet to be conjectured, but the modern nature of the advice is undeniable. Similar advice is not lacking. One kind of poster says that the cholera epidemic is caused by the careless handling of patients' stools and vomited stuff so that other people are infected; and advises people to take care of all vomited stuff and all excretion, including urine, of the patients by burial underground or by burning. The last words in these posters are "Don't drink unboiled water." By the fact that the authors of these posters regard the urine of patients as infectious we may be certain that they are not thoroughly acquainted with modern ideas about cholera yet, but we have to assume that they undoubtedly know something about them. The interesting thing, however, is that at least one author of these posters is later found to be an officer in one of the cholera prayer meetings and had contributed a small sum toward its cost.

The third type of modern precaution comes from the hospital, the missionary college, and the local middle school. As stated before, as soon as cases of cholera were discovered in the local hospital, the college authorities

arranged anti-choleric injections for all their faculty members and students, and advised especially the latter to refrain from careless eating. The attitude of these groups is that of modern science. In the meantime, the local hospital and the middle school put forth large notices advising the populace to take injections. The hospital at first gave any applicant free injections on the premises. Later on its authority sent out nurses to give free injections in the streets to facilitate matters, and made one injection an adequate dosage. The wife of a professor in the college who was a nurse before marriage also undertook to help and injected a number of local people. The local middle school and normal school posted large bills everywhere in the town. These bills were meant to be educative and were very detailed. One kind of pictorial posters shows the following: On one side are several street food stands retailing sweets, pea-curd, etc., swarming with flies. Several customers are seen eating these foods. On the other side of the poster are several people enjoying an open-air toilet, and several others vomiting. Flies also swarm on their stools and vomited stuff. The caption below the picture reads: "These flies in both places are the same flies and carry cholera germs from the one to the other."

Another kind of poster shows in large pictures the structure of a fly, and of the cholera germ, with detailed and scientific explanatory notes on how these germs may be communicated and by what means such communication may be prevented.

A third kind of poster stresses the absolute effectiveness of the anti-choleric injection. It reads: "In West Town, the mortality rate from cholera alone is now about two in every hundred. But all the 1,400 members of the middle school, the normal school and the primary school have been injected and have not had a single case of cholera infection among them."

A number of these posters were posted side by side with the notices and announcements of a number of cholera prayer meetings.

It will be in order here to put in a note on who among the local populace have taken the injection and what ideas they have about it. On account of the author's limited time and financial support in the research he was not able to make as he had desired a large-scale inquiry on all local people who have taken the injection. Among these he has personally talked to only about thirty. These include two carpenters of about thirty-five years of age, one fisherman of thirty-one years of age, three cloth dealers, one of whom did business in Burma, a Chen Chang (or head of the sub-district), a member of the gentry, about 55 years of age, a former primary school teacher in a village (now a trader), five students from the local middle school, a cook who runs the "bachelors mess" for faculty members of the missionary college, one woman of thirty-eight years of age, and others. At the outset it may be stated that most of these took an active role in, or contributed materially to, one or another of the cholera prayer meetings. For example, old Mr. N, the member of the gentry who contributed two hundred fifty dollars to the prayer meeting in the street where his family lives, two hundred dollars to another which took place in a street still further off, was a manager in one prayer meeting and a director in another. The author met him in the prayer meeting that took place at Area E where he was a manager and had a long talk with him. He showed the author his left arm and said that all his children and grandchildren had been injected at the hospital. He expressed to the author his firm belief in the efficacy of injection; but later on in the conversation he said that even after injection, one had better appease the spirits a bit. "Who knows which

spirit one may have offended unintentionally after all," was his conclusion.

A local boy by the name of Yang is the author's friend. He is eighteen years of age and a third-year junior middle-school pupil. He was the tea-server at the prayer meeting in Area I and was most enthusiastic when the author inquired about the rituals of this prayer meeting. He had two free injections in the local hospital. He told the author that the hospital only gave one injection and that he knew the college infirmary gave three. He believed that the hospital was being economical and that one injection alone would be ineffective. So he insisted on having two, by telling the hospital people that he would pay for the second one if he were refused it. He thought that injection was the only way to prevent one from getting cholera, but working in the prayer meeting gave him a good time. "Besides," he said, "My parents want me to be at the prayer meeting."

The trader (formerly primary school teacher) mentioned in the above list, lives in a village south of the town and is thirty-six years of age. His mother is over seventy, and he has a wife and three children. His father recently died of cholera. At the time of the author's interview with him, the cholera prayer meeting in his village had just been over. All of his family members except his wife were injected. He firmly believed in the efficacy of the injection and told the author the following story to indicate the strength of his belief: At first his third son would not have the injection in spite of his persuasion. Then the boy became sick. The man then took the boy for an injection and some modern medicine. The boy was well at once. Paradoxically, he knows also that the injection is useless on a person after the cholera attack has already begun. He contributed fifty national dollars to the cause of the local prayer meeting and was one of its many officers.

Further detailed enumeration of all the thirty more cases is not necessary here. Though the cases studied are small in number and therefore from them a definite conclusion cannot be drawn, one or two impressions may be given. The author's primary impression from such a study is that the injection is another device against the epidemic, not the only device or even the most important one; it is a measure to be taken together with the other means of cure or prevention. To rely upon it alone, or any one thing alone, is thoroughly unwise. The cholera prayers are a thing that the community has always had and are a matter of course. For this reason the author found most of the children who (whether in school or not) were about the various prayer meetings had been injected, but most adults had not been injected. The parents do not mind having their children subjected to this novel device, but as for themselves, that is often a different question. It varies more with circumstances. The cook who with his wife runs the bachelors' mess for faculty members of the missionary college allowed his children and wife to take three injections at the college infirmary, but he himself absolutely refused to have anything to do with the latter after the first dose. He said "It is too painful." His wife went for the injections only under pressure of some of the members of the mess, who threatened to discharge her if she refused. She is usually more pleasant than her husband.

Very few local women have had the injection. The ones whom the author had the opportunity of asking mostly also replied, "It is too painful." The woman who is included in the above list of injected persons is a widow and goes to meetings of temple prayers and other similar functions regularly, but she is also very inclined toward the outsider's ways of life. She owns a part of the house which is the Women's Dormitory of the missionary college

and knows practically all the girls. She is particularly friendly with some of them and takes pride in her new friendships. Her taking of the injection has nothing to do with her old belief which remains as firm as before.

In general, if not for special circumstances, the attitude of the adult population towards anti-choleric injection is not yet one of clear tolerance. The answer to the outsider's persuasion is often, "It is too painful." This is an easy refuge, which shows that the speaker in fact does not believe in its usefulness at all; for when there is need (as when a heavy illness like jaundice has befallen a person), most local men or women will not hesitate to allow native practitioners or quacks to insert long silver needles, whether in the cardiac or in the abdomenal region.

But even the priests and their assistants may not be against the injection as a personal practice. During the epidemic an assistant priest (in ordinary dress) applied for an injection at one of the stations. The man in charge of the injection asked him what "methods" he thought most effective in preventing cholera. The priest replied that he did not definitely know. The man then told him that there were three ways, as follows: (1) to drink unboiled water, (2) to read the scriptures and pray to the spirits, and lastly (3) to take an injection. Knowing that the speaker meant to be sarcastic, the priest became angry and beat a hasty retreat without the injection.

This incident was related to the author by a friend who said that he was there when it occurred. The author cannot vouch for its absolute accuracy in all details, but if it did occur as related it shows once again the intrinsic and indiscriminate desire to rely upon as many measures of safeguard as possible. But it reveals also the well known attitude of modern medical officers towards traditional ways of life. This is an extreme attitude of ignorance and intolerance. In West Town during the epidemic there were three persons with full modern medical training. The man in charge of the college infirmary is an American surgeon from Harvard Medical School and a medical missionary of the American Episcopal Church. The superintendent of the hospital is an M.D. from a provincial medical college and considered to be very well experienced through years of practice. The third is a woman, who was also connected with the local hospital. She was trained in Peiping Union Medical College. She belongs to the "Little Flock" and says that she works in the backward place only because of her mission in converting more people to her faith. None of them knows much, or is even interested, about the traditional ways of solving life's problems in the locality. The lady is most zealous in her work of conversion. She could not talk to patients or anybody else for more than five minutes without touching upon the other party's wrong faith. Nothing else is right but her faith and her way of life. The superintendent of the hospital is an earnest soul, serious and meticulous in his practice and is genuinely interested in his role as a reliever of physical distress. He asks no more questions when his medical procedure is over. To him, the local anti-choleric prayer meetings are the absurdity of absurdities.

The American missionary was born in China and has been in China for most of his life. He takes some interest in Min Chia customs, but more in reading the limited published material than in actual contact with the local people. He speaks some Chinese and shows an amazing ability in learning the Chinese calligraphy. From what the author has seen of him and of his interests, he cannot say that the man really aims at a thorough understanding of

the customary ways of the people among whom he is working. He knows patches here and there and has a way of jumping from one question rapidly to another, so that the questioned will usually have no difficulty in seeing the ephemeral nature of his interest in the things he has asked about. He and family live in a temple where one of the prayer meetings took place and lasted for three days and nights. His sister told the author that during the nights they (the family) asked them to stop the noise again and again in vain. Now, granted it is very unpleasant to have that amount of noise in the courtyard when one is trying to sleep, the objectors evidently had never given a moment's thought to the possibility that some villagers might decide to go to the missionary's church on a Sunday morning to ask the preacher to stop talking. (The author cannot tell whether the actual asking them to "stop the noise" took the crude form the lady described. The assumption here is that the medical missionary and his family did ask them in some way to stop the noise.)

The author has described the attitude of these three medical persons not with any intention of contempt or even any personal disapproval, but merely by way of showing how some representatives of modern medical science react in a rustic culture. And the matter extends way beyond these three medical practitioners. They show how very little difference there is between such an attitude and the general attitude of missionaries and other religionists towards the traditional ways and doings in any rustic culture in which they are working. The religionist's attitude may be illustrated by the public expression of the husband of the lady doctor in West Town. He and his wife both belong to the "Little Flock" and are the moving spirits of the group. He is a jewel merchant from overseas and speaks fluent English. He expressed himself very strongly in public regarding the epidemic: "If one can trust God (by prayer) and take precautions (medical) at the same time, then all is well and good. If however one has to choose between the two, I trust God and prayers alone." He takes no injection and condemns the local people thus: "What is wrong with the West Town folks is that they do not trust God nor take precautions."

D. The Gods have Answered the Appeal

A few days before the last large-scale prayer meeting in Area E took place, rain began to fall. The general temperature suffered a sudden drop. During this prayer meeting the sky remained cloudy and rain was sporadic. From the day after this meeting was over torrential rain fell continuously for a week and the temperature dropped further. As the optimum temperature for choleric bacteria is somewhere around 27°C. and the temperature must not be too far below that when carried from one agent to another, the epidemic was thus over.(14) Another piece of irrefutable evidence of the efficacy of the main body of the traditional ways in dealing with Wen (epidemic) was thus firmly established in the memory of the local people. No local person ever mentioned a word about the drop in temperature and its relation to the behavior of the epidemic, nor was there any great discussion of the efficacy of the prayer meetings, of the taboos on food and on dirt, or of the native prescriptions. Most of these are taken as a matter of course and therefore not matters for reflection. Even the modern injection attracts no more

(14) "The association of high relative humidity with high temperature, accompanied by intermittent rains, forms the most favorable atmosphere for the development of the disease, and the presence of endemic centers from which epidemics may at any time spring, must also be accepted." (Manson's Tropical Diseases, edited by Philip H. Manson-Bahr, 1935, p. 439.) Also, "The bacillus grows best in alkaline media at a temperature of from 30°C. to 40°C. Growth is arrested below 15°C. or above 42°C. A temperature over 50°C. kills the bacillus." (Ibid., p. 440.)

speculation. As years go by and if the external influence continues its pressure as it does now, an increasing proportion of the local population will undoubtedly take the modern injection, but they will not necessarily withdraw their support from the measures embodied in their ancestral traditions and customs. The modern injection will then, in the minds of the local people, be ranked side by side with the prayer meetings, the many native prescriptions, the food taboos, etc., and be carried out and received in the traditional manner and not in that of the modern ways of science.

As the author travelled back from West Town to Kunming on a truck, he observed that in all towns along the road, and in Kunming itself, which the epidemic touched, prayer meetings similar to those prevalent in West Town took place. This fact shows that at least using prayer meetings to combat the epidemic is not peculiar to West Town.

CHAPTER IV

ANALYSIS AND SUMMARY

As stated before, all of the doings described in Chapter IV of this paper happened within the duration of the epidemic - about one month. Some occurred simultaneously. For example, the dates of several prayer meetings overlapped each other. And the prayer meetings were held as the volunteer prescriptions and moral advice spread. Some are supplementary to others. For example, the purification of the air by smoke, the cleaning up of the streets, the abstenance from meat and fish, and the disuse of the streams for washing purposes were all supplementary to the prayer meetings. They are means of avoiding the displeasure of the gods whose help is being invoked.

Cleanliness, both public and private, as the modern world understands it, is not customary. And the relation of cleanliness to the avoidance of "choleric bacteria" is not at all conceivable in the culture.

The taboo on a large number of vegetables and fruit may be said to be based upon sanitary ideas of a sort, but it is a sort different from what the modern man is accustomed to think of as scientific knowledge.

Closer to modern knowledge are some of the medicinal prescriptions. The analysis of their composition, as we have seen, shows that many elements would be effective in beating down the disease. But other prescriptions may be entirely useless or even fatal to the patient. The method of opening up finger tips to let out blood, for example, leads to bad infection and may render futile any application of modern treatment by serum. The drinking of the so-called "fairy water" from a cave in a hill is another alarming example. It may simply increase the rate of infection to a tremendous extent, and provide stimulus to such practices, as we have seen, as drinking unboiled water springing from an incense burner converted into a fountain.

The situation may be further analyzed, as in the following diagram:

DIAGRAM I

Measures resorted to	Expected or Unexpected Results	Domain of the effect
Taboos on food (potato, string beans, turnip, all sour fruit, confections, new wheat flour, fresh meat, fish, pumpkin, egg plant, etc.)	Ex.: "To please the gods" "To avoid making abdomen cold" Un.: Sanitation, or arrestation of the growth of the bacillus	Spiritual or Physical (the latter may be good or indifferent)
Taboo on dirt and animal and human soil in streets	Ex.: "To make the air and place clean for gods" Un.: Sanitation	Spiritual or Physical (the latter is definitely good)
Insistence on morals	Ex.: "To purify the heart and so please the gods"	Spiritual

Diagram I (Continued)

Measures resorted to	Expected or Unexpected Results	Domain of the effect
Prayer meetings	Ex: "To invoke the gods" "To ask them to forgive our sins", etc. "This is the proper communal way", etc.	Spiritual
Hanging cactus stalks, making hand-prints on doors, etc.	Ex.: "To stop ghosts from coming in", etc.	Spiritual
Medicinal prescriptions	Ex.: "To cure" Un.: Indifferent or defeating its own purpose	Physical (may be good, indifferent or bad)
Fairy water	Ex.: Cure and prevention Un.: Infection and death	Spiritual or Physical (the latter definitely bad)

Note: Ex. represents "expected results" while Un. represents "unexpected results".

As will be evident from a closer scrutiny of the data presented in the foregoing pages certain measures, though carried out for the benefit of the gods or spirits, obviously also produce other results than the expected ones. And these results, from the scientific point of view, may either be good or bad or indifferent. The taboos on food, for example are for two ostensible reasons: to avoid displeasure of the gods (taboo on meat and fish) and to avoid "making the abdomen cold" (taboo on vegetables and fruit). The unexpected result of these taboos comes by virtue of two reasons: First, fruits are usually eaten without washing and peeling, while vegetables are often washed in the streams and then either eaten raw or not sufficiently cooked. By abstaining from most vegetables and all fruits the unsuspected result of sanitation is thus obvious. The taboo on fish and meat may produce a similar unsuspected result or it may be entirely irrelevent to the epidemic. Second, these taboos may produce an unexpected result on the prevention of the epidemic because of the behavior of the bacteria: According to Manson's Tropical Diseases, "The bacillus grows best in alkaline media at a temperature of from 30°C. to 40°C. . . . Meat broth, blood-serum nutrient gelatin and potato are all suitable culture media." (p. 440)

Now, isn't it obvious that by abstaining from potato and meat the local people have attained a genuinely valuable measure of prevention? The unexpected sanitary result of the taboo on dirt, etc., is obvious and needs no more comment. The drinking of "fairy water" is traditionally an undifferentiated physical or spiritual measure. It may lead to results directly opposite to the expected ones. The prescriptions may either be effective cures or disastrous. The other measures, such as the insistence on "morals", the prayer meetings, and the hanging of cactus stalks and the making of hand-prints on gates, etc., are, as far as we can see at present, without direct physical bearing on the epidemic. However, as the prayer meetings are the center around which the majority of the taboos operate, it may be said that such prayer meetings are also responsible for the unexpected beneficial physical results coming from the various taboos.

All these show that real knowledge is intertwined with false assumptions; but since all these doings are traditionally handed down, the two are not exactly and always distinguishable in the minds of the local folk at all. They show that, should we unconditionally agree with Prof. Malinowski that magic fills the gaps of science, our position will be quite untenable. The distinction between magic and science is a post-industrial product and is not present, the author believes, in most rustic cultures. In a rustic culture, assumptions based upon real knowledge are traditionally defined and built up no less than are assumptions of a magical nature. Both are habitual ways of conduct. In this manner magic, far from necessarily occurring at places where real knowledge is lacking, may indeed exist, flourish and operate side by side with sound scientific knowledge, for attaining the same general aims. This conclusion is made especially obvious when the culture is subjected to external pressure - as in West Town. Here we have a situation in which one line of action is traditionally defined and a mixture of magic and real knowledge, while another line of action is clearly based upon modern science and, as far as the moderns can see, contains no significant false assumptions. Can the new knowledge based upon scientific experiments replace the traditional mixture? The answer has already been given in the facts presented in the foregoing pages: It cannot. First, as we have seen, the use of either magic or real knowledge in the community comes from the same attitude of mind. Second, the traditional attitude which gives sanction to the local practices inevitably requires that when new practices present themselves they be added to the total list if they are not too strange and rejected. The addition is not to replace the old ones but to operate side by side with the others. The attitude behind practices based upon theories of modern medicine, on the other hand, is characterized by a vehement desire to replace the old practices completely. This attitude of mind is incomprehensible to the rustic mind.

Third, the native measures are largely of a communal nature. An examination of the diagram just given will show that the prayer meetings are the center and most other measures taken (such as the taboos on dirt, food, insistence on morals, drinking of "fairy water", etc.) are supplementary to them and form with them a whole conceptual and working system. These communal doings are part of the social organization. They reveal the position of the individual in the community. They bind individuals of the community to one another. They are as important as other communal doings, either religious ones (such as shown in the annual cycle of religious occasions and many others) or social ones (such as the suppression of breach of customs, especially in the sexual domain). That the most literary man of the district (Mr. Chao) had to participate in more than one prayer meeting and yet failed to defend his position when asked by the outsider, that the two carpenters who made the most out of the epidemic had to subscribe very generously to the cause of the prayer meetings, and that the wealthiest family of the locality which had given shape to the modernized hospital and schools should also lend large financial support to these prayer meetings, are all indications of the true weight of the rustic practices. The last case is especially interesting. The family's support of two widely divergent types of institutions at the same time shows that both efforts do not involve a question of principles (whether magic or science) but are means by the traditional pattern to achieve the same social end, namely prestige in the community. That is why, although West Town has been subjected to so much influence from outside, as we have seen in Chapter II of this paper, still the traditional practices remain as firmly entrenched in the minds of the populace as ever.

The anti-choleric injection and other modern measures of sanitation, on the other hand, are without such root in the community. They have to come in by way of individual adjustments and not by way of communal transformation. It is this fact, the author thinks, which is responsible for the phenomenon that more children than adults have taken the injection. It is this fact also which is responsible for the circumstance that the older people are in directing positions in the prayer meetings. This fact also indicates that the modern injection will have to become another accepted way of doing things (whether it be magic or science as the outside observer conceives of it) in order to come into the community at all. For although individual adjustments may be comparatively easier to effect than a communal transformation, as long as the individual has to live and be a respectable member in the community he or she cannot afford to be indifferent or antagonistic towards the life, work and public affairs of the community. In such a case, individual refusal to participate in the communal undertakings means much more than an individual affair. The individual refuses to participate at the risk of being ostracized, for by doing so he is thought to be endangering the entire community.

We have thus in a way reversed Professor Malinowski's position on the relation between magic and science. He took science for granted and conceived of magic as something secondary, to take up the places where science has failed. Professor Malinowski has lived and thought in the scientific era of European civilization, where magic in many spheres of life, such as technology and hygiene, is clearly distinguishable from the main body of knowledge based upon modern science. When we look at the matter from the point of view of the rustic culture the picture is entirely changed. For then science is no longer the general background; the background, usually a mixture of sound knowledge and magic, is cloaked under the local traditions and habits, while the clearly defined scientific ideas and usages from outside will have to struggle for a foothold, taking up the places where the traditional mixture of real knowledge and magic has failed and being woven into this mixture.

There is a further question to be answered. Can we say that, following Malinowski, if some of the practices (such as the prayer meetings) do not seem to have any obvious physical bearing on the epidemic, they nevertheless provide the individual and the community with a means to psychological stability to tide over the crisis? The answer, as the author sees it, is neither in the positive nor in the negative because, after the foregoing analysis, the question does not in fact exist at all. All the practices so far analyzed are traditional ways of meeting life's problems and situations and therefore undifferentiated as regards science or magic. The prayer meetings are as important as the taboos on food. The latter again are as important as one or other of the many medicinal prescriptions or the emphasis on "morals". Very often, to many individuals, all of these are again as important as the drinking of the "fairy water". That this is the characteristic mental attitude may be confirmed without difficulty in other walks of life. At a wedding, for example, the practices which we as investigators brand as magic (such as the custom that the bridegroom must face a certain direction when the bride's sedan chair comes in) exist side by side with others which we as investigators brand as real knowledge (such as the use of a sedan chair to carry the bride, or a particular way of displaying the dowry through the streets). On the Fifth of the Fifth Moon, a festival, each child or adult has some orpiment (As_2S_3) (mixed in water) smeared in earholes, nostrils and other vital parts of the body. This is to ensure that no worms or anything else should penetrate into the body through those openings. At the same time small brushes or mops made of

hemp dyed in different colors are hung on the body, to sweep away diseases throughout the coming year. Now, by chemical analysis we know that orpiment has disinfecting properties, and therefore the first practice has a scientific basis; but no science has yet told us the disease-cleaning property of a tiny hemp mop hung on the body. In the treatment of particular diseases we may observe the same thing. In West Town the traditional method of treating skin diseases, like scabies, is the following: (1) The women of the house, with the patient, go to a corner just outsidd the southern town gate and cook an afternoon meal in the open air. When the meal is ready the eldest woman, leading the patient, makes an offering of food and incense and koutous with the patient in all directions. Some paper money is burned. Then the women have a meal together with the patient on the spot. (2) Before or after the above ritual the family prepares a kind of mixture consisting of Hwang Lien (Coptis teeta, Wall or Radix coptidis, containing Berberin ($C_{20}H_{17}NO_4$)) and lard, and smears it on the sores. The idea behind the offering is that a Ku Nai (goddess) is in control of all cases of the disease and has to be appeased. None of the women of whom the author inquired could give any definite relationship between the medicinal mixture and the offering. Some women simply answered: "Here we also believe in this." (This refers to the medicinal mixture.)

Now which type of practice provides psychological stability and which does not? Can we say that the prayer meetings provide an emotional outlet for the people more than do the many medicinal prescriptions? Can we say that the direction in which the bridegroom is sitting is of greater psychological importance than the use of the sedan chair? Can we say that the smearing of orpiment on the body on the Fifth of the Fifth Moon comes from a different kind of reasoning than does the carrying of tiny hemp mops on the same occasion? And finally, in the case of the treatment of the skin diseases, can we say that the offering-picnic satisfies the people's spiritual want more than does the particular kind of local therapeutics? Or to put the matter more plainly, is the method of wielding an axe in order to secure fuel for the kitchen any less important psychologically than the matter of putting a string of coins on the main beam (to ensure peacefulness) in the construction of a house (the practice is prevalent in the author's home village in southern Manchuria)? The author fails to see the desired distinctions and must repeat the observation that both the "scientific" acts and the acts based upon false assumptions are traditionally standardized behavior and are hardly distinguishable as one or the other in the minds of the majority of the people. Even in such a crisis as the present epidemic, the West Town populace's attitudes as a whole regarding it and their means to combat it are highly formal. The demand for an explanation from the ordinary folk of the community meets again and again with replies which may be summarized in the following unreflective statement: "When there is Wen (epidemic) we have these prayer meetings. We had prayer meetings on such a scale once before, in the Seventh year of the Republic, when another Wen broke out in our community."

When there is an untraditional happening of momentum such as a bombing or enemy invasion the people may either treat it as a traditional occurrence (the inhabitants of Lu Feng, Yunnan, set up prayer meetings against bombing in the early stages of the Sino-Japanese War[15] or ran into an

(15) The author is indebted for this information to Dr. H. T. Fei, who came across the occurrence while investigating in the area.

absolute panic because they are without means to deal with it.) (The inhabitants of West Town and of the Tali district in general were very much stirred up when Burma fell and a Japanese invasion was imminent in the spring of 1942. Many families began to move further north.) In the latter case the emotional tension is not relieved at all.

The behavior of West Town people and the conduct based upon modern scientific medicine in connection with the epidemic may therefore be summarized in the following diagram (Diagram II). In both types of behavior there is an aim and an expected result. The behavior is the means. In the traditional way, the epidemic is not felt unless deaths have occurred in considerable numbers. Then the epidemic is represented as a simple ailment falling upon the populace as a sort of punishment from the gods for unsatisfactory conduct. There is no effort to differentiate what kind of epidemic it is. And the ways of dealing with it are ready-made and a straight-forward matter - the prayer meetings, the taboos and other doings come by with a minimum of reflective effort or none at all. All these doings present an appearance of spontaneity. Every measure in outline and function is practically understood and known to all adults and is not a matter for dispute or discussion. The expected result is the end of the epidemic.

The way of modern medicine based upon experimental sciences is more complicated. The point of departure is the sudden discovery of a few cases of auspicious symptoms. Then there is an effort to determine the responsible bacteria, with the aid of the microscope. It is then decided that the cause is vibrio cholerae, and their is a sudden alarm of an impending epidemic. Steps to deal with this crisis are then decided upon. After the scientifically determined measures have been meticulously carried out, the modern public health officer may declare that the epidemic will probably end soon.

In either pattern of behavior a medium of the trouble is decided upon, the difference being that in one case the medium is found to be precisely vibrio cholerae, while in the other it is all and any god. In the modern pattern the effort of general cleanliness and prevention of infection is a highly deliberated matter, with the definite view of preventing the transmission of the bacteria. In the local pattern much the same effort is carried out during the crisis for the purpose of pleasing the gods. It is clear, then, that the situation is not one of difference between magic on the one hand and science or real knowledge on the other, but one between a certain body of traditionally defined behavior based upon a mixture of knowledge and fantasy, on the one hand, and a certain other body of behavior based upon knowledge and ideas derived from experiments and observations through procedures of modern science, on the other. The first body of behavior has become a part of the indigenous culture, while the second body has just come from outside and is struggling for a foothold.

In the individual cases the traditional behavior pattern is somewhat different. The illness causes a person and his or her family to think in terms of a variety of causes - maybe the patient has displeased the gods; maybe it is his fate; or maybe the illness is simply a bodily trouble; but usually the causes are multiple. No effort, of course, is directed at determining the exact cause, but actions are taken on all known possibilities. Spirits are invoked, medicines taken, finger tips needled to let out blood, "fairy water" is drunk, fortune tellers are consulted, and so forth. Almost anything that presents the slightest suggestion of a cure, whether the information

comes from a qualified person or not, if the suggestion be not too drastically different from the traditional conceptions, may be accepted. In such a context the modern injection or medicine may be accepted - not through an understanding of the therapeutic principles by the accepting party but simply because it is another unknown power, whether it be magical or scientific.

DIAGRAM II

COMMUNAL (a. the traditional way; b. the scientific way)

Aim	Means		Result
a. Epidemic(to get rid of the Wen that causes many deaths).	Prayer meetings, taboos, etc. (There is no question that the cause is spirits or fate, but this is only understood, not discussed. Certain "cold" food may also be responsible for some individual cases of the illness.)		End of the epidemic
Aim	Means (1)	Means (2)	Result
b. Epidemic (to get rid of it)	What epidemic? (Cholera. The use of the microscope enables man to find out that it is caused by vibrio cholerae which multiply rapidly in optimum temperatures and in suitable media, etc.)	(1) Injection (using fluid containing 8 billion bacteria to the cc), etc. (2) control of transmission of bacteria by flies, water, natural ice,etc. (3) General sanitation, etc.*	The epidemic will end.

* Modern medical authorities think that "the forecasting of cholera epidemics has now become an actual possibility. Based upon statistics which have been subjected to modern scientific analysis, an outbreak of cholera can be predicted two to three months ahead." Manson's Tropical Diseases, edited by Philip H. Manson-Bahr, 1935, pp. 438-439.)

INDIVIDUAL

Aim	Means(1)	Means (2)	Result
a. Individual illness caused by Wen or cholera to be relieved.	Fate, Displeased gods, bodily trouble, accidental.(the various causes are not certain nor clearly defined.)	To invoke spirits, observe taboo on food, etc. Also, Medicine (any) Let open finger tips, Needling, any other means, including injection, drinking "fairy water", etc.	Cure or death
b. Individual attacked by sudden illness of certain symptoms	Infected by the prevalent bacteria.	Hospitalization of very serious cases. Other cases treated at home. One line of curative effort consistently followed. Stools disposed of, etc., etc.	There is a fair chance of cure.

CHAPTER V

FINDINGS EXAMINED IN THE LIGHT OF DATA FROM A WIDER FIELD

The inferences arrived at in the foregoing pages are three in number, namely, (1) medicine and practices based upon sound knowledge are usually mixed up with and not distinguishable from magical doings and ideas; (2) in case of illness the rustic folk will try various traditional cures one after another, rather indiscriminately, while the communal organizations take care of illnesses which affect the entire group in very much the same manner (i.e. depending upon multiple powers); and (3) even if modern measures are accepted to some extent the principles underlying such measures are either ignored by or incomprehensible to the common folk.

Such conclusions are far from being peculiar to West Town but may be confirmed by data from several non-Chinese areas on which reports are available. In East Africa, for example, we find the following in the excellent work of Professor and Mrs. R. Thurnwald:(16)

A. "The natives have a number of good therapeutics and efficient treatments based upon experience, although interwoven with magical ceremonies, superstitions and prejudices. The ailments were projected into the real or imagined surroundings, animals, hostile people, ancestors, spirits, and what not. There is less speculation about the manner in which the effect is accomplished than about the active connection of this or that moving-cause ... Generally, the cause is imagined as a spirit, is treated in the fashion of egocentric psychology, and is appeased by donations in food or the like. If these offerings do not entail success actions are begun to check the primary 'magic', i.e., 'counter-balancing magic'. Accidents of any kind, as breaking an arm or leg, are traced back to some malevolent causation of a man, spirit, and so on. In spite of such a 'projection' into the world beyond 'ego', a fully logical and efficient procedure ensues. The Shambala, for example, put the broken limb between sticks and are able to treat such cases excellently. It is different with sickness of another kind, when symptoms are not easily discernible. Then the operation of imaginative speculation starts and we encounter the method of treatment generally called 'magic'. For many diseases no cures exist except 'magic' manipulations. Diseases of infants are to be classed among them, and amulets, talismans, beads, etc., are meant to protect against those untoward evils by sorcery." (pp. 197-198)

B. In the last quotation we observe clearly the mixed nature of magic and medicine. In the next quotations we shall see that in case of illness the natives will try various traditional cures one after another before coming to the modern dispensary or doctor.

"It is, however, true that even pagan mothers begin to bring their children to the hospitals and to the missions, after their witch doctor has failed to cure them, though often too late." (p. 166)

"This refers particularly to the native women, who after many years of hospital work are reluctant to go there, mostly, only in exceptional cases, when no relief can be found at home any more. Often, therefore, it is too late for efficient help." (p. 199)

(16) Richard C. Thurnwald, Black and White in East Africa, 1935.

"To understand the amount of disease among the Africans the long lines of suffering human beings should be observed waiting for treatment. They have all, more or less, tried some 'magic' beforehand without success, and are now crowding the mission expecting some 'medicine', injections, bandaging and so forth." (p. 202)

C. The following quotations will show that the principles underlying the modern therapeutics for which the natives are applying are not only ignored by the common folk, but are often impossible even for most Christians and others who have gone through some sort of medical training to comprehend:

"It may be that they accept all that is told to them as a more efficient 'magic', and under the compulsion of pain have got used to and won confidence in the practices and devices of the stronger 'sorcerers'. If not exactly so, it must be recorded as a unanimous view of teachers and nurses that the reasons for a changed behavior, the observation of the prescriptions and advices given by the Europeans, are far more a consequence of the African's faith in the European himself than a clear insight into the conditions and the working process of diseases and their remedies. At least, until now few exceptions can be made in this respect." (p. 94)

"Of course, Christians are still under the spell of magic to some extent. In many cases, the mission has to convince their adherents to the contrary. All kinds of colds among the Chagga are considered as provoked by an evil spirit, notwithstanding thirty years of mission work there. The Chagga oppose the teaching that the wrong use of clothing (which is considered primarily as an ornament) is to a great extent responsible for lung diseases, inflammations, bronchitis, asthma, etc." (pp. 197-198)

"As emphasized repeatedly, in the present stage of adaptation the personal and human side of influence is paramount for the propagation of European hygiene. Therefore, the activity of the 'native dispensaries' seems to be inadequate because of the youth of these boys and their insufficient training (about six months in a hospital). Moreover, their control is not effective enough in the absence of European doctors. Dispensing of medicines implies a minimum of diagnosis which cannot be expected from the most talented boy of twenty or twenty-five years of age. They may be able to help in the bandaging of a sore, but they tend often to overstrain their importance and underrate their responsibility. Being themselves still under the spell of 'magic', they recur even to a native medicine-man for help in a difficult case." (pp. 202-203)

In Malaita, Solomon Islands, the picture as one may gather from the accounts of Dr. H. I. Hogbin,(17) is very similar to the above. There we find the same promiscuous application of cures and the same lack of understanding for the principles of modern therapeutics and health measures - even if the latter are resorted to.

"If a person is ill and magic has been tried in vain the relatives may take a small pig, or if this is unobtainable a fish, to the priest with a request that he will offer it to the immediate ancestors, perhaps the father and grandfather of the sick man, in the hope that they will use their influence to overcome the disease." (p. 108)

(17) H. Ian Hogbin: Experiments in Civilization, 1939.

More interesting is the reactionary use to which Christian Commandments and Confession is put in regard to healing of diseases:

"Health and success, and the promise of heaven ... are supposed to be the rewards of virtue; and disease and death, together with the assurance of hell, are punishments for vice." (p. 191)

"Persistence of good health is the only infallible sign of forgiveness ... Benjamin Akwa's assistant in the church at A'ama, Fafanda, had a bad attack of gastric malaria. I administered quinine, but as he was continually vomiting it was quite useless. After about the fourth day Akwa came to see him, and as he sat by the bed I heard him ask, 'What have you been doing?' Fafanda then confessed that he had coveted some coconut palms, and actually claimed them as his own, though he knew they belonged to a neighbor. The family gathered round, and Akwa went on his knees and asked God to take pity on the sufferer
"At the morning service on the following Sunday, Akwa announced the confession and led the congregation in prayer for Fafanda's forgiveness and recovery. Two days later the vomiting ceased, and by the end of the week the patient was back at his work. The villagers were convinced that the confession had been of greater value than my quinine." (p. 192)
(Several similar cases are also given in the same book.)

"Thus the instruction given today to refrain from spitting in the house is not obeyed because the people are unaware of how such diseases as tuberculosis are spread. It has also been reported that native dressers who have been trained to boil their instruments, without being told why this is necessary, have no compunction about wiping them with filthy rags afterwards." (p. 259)

The excuses which Dr. Hogbin has made in the last quotation for the natives' inability to comply with modern instructions are, in the present author's view, quite unnecessary. Had Dr. Hogbin been concerned with the actual instruction, he would have realized how impossible it is for a native who knows nothing about modern microscopic biology and who lives in a social context where spirits and morals are responsible for diseases, to comprehend the modern instruction and follow it closely and consistently.

In Samoa, as reported by Professor Keesing,(18) the similarity of conditions with those in East Africa and in West Town is even more obvious:

"Indeed, some white medical officers are beginning to take a less prejudiced attitude to certain Samoan 'cures'.

"We used to class all Samoan medical customs as 'bad', but recent experiments have set us thinking. Some remedies, based as they are on long experience of the island conditions, and of the curative properties of its plants and other products, seem good, and in some cases may actually become established in medical science. But it is very difficult to separate the good from the bad so that the power of the native doctor will have to be broken. The trained native doctors can be counted on to make the necessary adjustments." (p. 391)

(18) Felix M. Keesing, Modern Samoa, Its Government and Changing Life, 1934.

Then, "White doctors meet repeatedly with cases of illness and death where the only apparent cause is that cited by the Samoans or whispered as a secret to be hidden from the scoffing white man - the work of a spirit, breaking of a taboo, a sign of ancestral wrath, or some fatal omen of age-old portent." (p. 391)

"Sick people will be treated by native methods until just dying, and then taken to the hospital as a last resort, and where deaths occur in such instances the white authorities are allotted the blame; the phrase is not uncommon 'sick enough even to try papalangi ("western) medicine'. A patient may be removed from the hospital at a critical period because of some supernatural token or family occasion, and his death again blamed on the white treatment; or if the doctor refuses to allow him to be taken the whole village or a wide relationship group may refuse to use the hospital henceforth. Above all, there is the strong tendency always for the inertia of Samoan custom to reassert itself - 'the easy-going fa'aSamoa way creeps back as steadily as the tide over the reef'.

"A part-Samoan said: 'The Samoans took up the health ideas enthusiastically; they built latrines over the sea. After a time these fell into disrepair; a post collapsed: "I must fix that tomorrow"; thought the Samoan as he went back on the beach or in the bush. The same thing happened the next day. Then he decided that it was easier to go to the beach or bush than to make the repairs, and that anyway there was no difference - in the past that was the proper custom. A few rotting posts on the beach were soon all that was left of the latrine experiment in the village. So it goes with all the work for Samoan health.'" (p. 393)

And lastly, "Samoan medical lore, even in American Samoa where its practice is officially forbidden, is still a vivid element in everyday life. Much of the old knowledge continues to be passed down in the families and by specialists. These latter to an extent continue to practice and to receive remuneration in the Samoan way, only now more or less secretly, due to the disapproval of the authorities. They are not wholly defenceless, however, since they have been known to retaliate by terrifying whole communities into respecting a sa (taboo) placed by them on a dispensary or medical officer.

"'With all their fortunate associations with the hospitals and with the officials, many probably a majority, of the Samoans believe that their own crude drugs and harsh medical treatment are more efficacious... There is an inward dread of an unpleasant visitation of the spirit of one of their departed kin, who, in their opinion, may be angered at the innovation.'" (Quoted by Keesing, p. 390, from E. W. Gurr, "Samoan Hygiene" in Samoa Guardian, January 2, 1930)

Shortage of space prohibits quoting similar data from more works. The above quotations are self-evident. They indicate the very large difficulties involved in the transition from a traditional attitude to a comparatively scientific attitude toward diseases and health in general.

CHAPTER VI

POSSIBILITIES FOR THE INTRODUCTION OF SCIENTIFIC MEDICINE INTO A RUSTIC COMMUNITY

Conscious efforts in seeking to propagate modern medicine and health measures in the various backward countries so far run along two lines: (a) the "dictatorial method" and (b) the "democratic method". These two terms are the author's own adoption and have nothing to do with their current usages.

(a) The "Dictatorial Method".

The first method is resorted to by governments which assume the role of Dieu Protecteur and require the people to follow their instructions and legislation with a minimum of, or no, explanation at all. The Yunnan Provincial Government tried this method. A friend of the author's, Mr. Chang Tze-yi, visited Yu Hsi Hsien, Yunnan, during a time when the periodic markets failed to take place. Upon inquiry he found that the provincial health department was enforcing compulsory inoculation against typhoid and cholera, and the villagers evaded it by refusing to come to the market altogether. The Japanese authorities in Occupied China often enough have tried this method. And the British rulers in Africa have frequently required the clearing of bushes with compulsory labor or moving away whole villages in the tzetze fly area in order to exterminate the sickness of which the fly is the cause, or resorted to other measures equally drastic.

Are such measures fruitful? Yes and no. All such efforts undoubtedly achieve some results (the authorities in question may always be able to show figures of increase in hospital beds or equipment or of the number treated). Certain sanitary measures, such as the disinfection of water sources or the clearing away of tzetze fly bushes, are best done with some exercise of governmental power, but such efforts so far have neither secured a really widespread cooperation on the part of the peoples nor taken a deep root in the indigenous cultures. The peoples on whom such measures are imposed may decide to evade them, as some Chinese have done. They may retard the intended progress so that even enthusiastic ethnographers like Professor and Mrs. Thurnwald have to admit, after over thirty years of European administration and missionary work, that:

> "Both ways, those of old Africa and of modern Europe, are tried alternatively" (Op. cit., p. 98); or again, "Although the activities may not be fully understood, the health service has shattered the influence of the sorcerer and magician. Of course, not entirely." (Ibid., p. 98)

In Samoa, where "more than a quarter-century of continuous and persistent work with the staff and resources, made possible through the cooperation of the Navy Department (U.S.A.)," has been carried on, the results are, as we have seen in two quotations, far from satisfactory and have caused Professor Keesing to observe that,

> "The first enthusiastic assaults of the latter (modern medicine and public health measures) have made some headway, but the traditional forces, strong enough in Western society, have been little or very impermanently shaken. For the timebeing, therefore, there has been at many points a compromise.

Nowadays, the authorities of both areas are trying a new weapon - education. How effective this will be depends perhaps less on the health department directly than upon those whose task it is to reshape Samoan mentality: the missions on the one hand, the school teachers on the other." (Op. cit., p. 395)

(b) The "Democratic Method"

This method is pursued by organizations and institutions of reform of private origin. The Chinese rural reform movement is one type. The various European missions abroad represent another type. These two types of organizations have a common starting point - the individual. By means, largely, of resources from abroad or other non-local origin, the Chinese rural reformers have been able, during the last ten years before the present war, to establish hospitals and many district dispensaries, with trained medical dispensers, over many areas of the country. The British and German missions in East Africa have had a much longer record, a much stronger support, and a much larger working force than the comparatively recent Chinese reform centers. Their work is fully described in the aforementioned volume by Professor and Mrs. Thurnwald. What are the results? Chinese rural reform has borne little fruit of significance in this respect. As soon as the outside support in finance and personnel is withdrawn, the communities return to their old, traditional course. The result of missionary medical work in East Africa is of similar or even greater uncertainty. Those who seriously adhere to European medical and health measures have to be the "detribalized" individuals (or an individual who no longer belongs to his or her own culture and community). As regards the mass of the people, we have seen how "the intricacies of the complication of irrational and rational thinking are a stumbling block for many women in attempting to understand measures of European medicine," how even trained medical dispensers and Christians fall back on magic, and how the main emphasis of European medical workers in Africa nowadays is on the winning of personal confidence in the physician and health officer. Such facts speak for themselves. The efficiency and permanency of the influences of these missionaries may again be seen from a sidelight, from the result of the non-medical instruction of the Jeanes School, which institution has impressed Mrs. Thurnwald very deeply;

"The Jeanes School's goal is to make these women advance so far that in their home village they may be capable of influencing their co-villagers by a model family and household, that they may help the other, particularly Christian, women by the advice which they themselves have acquired, and by a display of practical methods and skill. Such instructions are an arduous task for most of them, particularly since they meet with the obstruction of the old generation of women. Most of them are unable to understand the methods used." (Black and White in East Africa, op. cit., pp. 203-204.)

Now if it is so difficult for instruction in simple home work by such a highly perfected institution as the Jeanes School to make much headway, how much more difficult will it be for instruction that bears even more intimately on people's life and death?

In West Town the author has seen numerous school children at home, spitting about, wiping faces with obviously unclean towels, eating fruit that has not been washed, taking no bath at all, etc., after being instructed in school not to spit, not to use a dirty towel, to wash before meals, to bathe

regularly, and so on. These children are not to blame. Their parents and guardians, relatives and friends who have not been so trained and have never been accustomed to those habits, will neither follow these "strange" ways nor respect them if the children tried to carry them out at home. These strange ways will most likely be suppressed, and if the children's education is discontinued after the primary school, the children themselves will usually grow up not very different in thought and behavior from their elders, although externally they may wear dresses, hats and shoes of a later style. This conclusion is indeed borne out by facts seen during the cholera epidemic, when many school boys and adults who had primary and secondary education took an active part in the prayer meetings and other communal doings to combat the epidemic. As long as they live where and as they are, they will, undoubtedly, when ill, continue to seek as many cures as possible.

The author does not hold the opinion that the European and Chinese governmental or private reform efforts have not left their marks, but he is far from being impressed by the marks thus left. Why have these methods not achieved results of significance? The answer is in every elementary textbook on sociology it has often enough been reiterated but has, unfortunately, often enough been forgotten even by reputed anthropologists dealing with colonial problems - that Man is a product of his culture and has to live as a member of a society. "There is no isolated individual just as there is no isolated institution." Individuals live by the habits they acquire as they grow up in their culture, just as institutions operate by the pattern they assume as they take shape among many other institutions. But not every one lives by habit to the same extent and in all spheres. In almost any society we may find two layers as regards mental attitude. The one layer is capable of more reflective efforts than the other. The superiority of a modern society over that of a rustic society lies in the fact that the former contains more elements capable of reflective thinking than does the other. But the point to be stressed is that the majority in both types of societies live by habit and not by reflection. Speaking in terms of medicine, theories are of secondary or no importance to the majority of patients either in modern Europe or in the rustic West Town. Cure is the primary and usually the only concern - the difference between the two groups of patients in this respect being that in modern Europe the habitual channel leading to cure is "to trust and ask a doctor", while in our rustic West Town the habitual channel leading to the same objective is "to appease the spirits and try all possible prescriptions." The scientific theories of medicine and of public health are the concern of the doctors and a few other professionals in the one society, just as in the other the prayers, rituals, amulets and principles of native therapeutics are in the hands of the priests and native practitioners.

The propagators of modern hygiene and scientific medicine have to decide whether or not they want a total conflict between two systems of theories (i.e. the rustic theory of spirits, etc., vs. the scientific theory of germs, etc., and suppression of the former by the latter) when they attempt to introduce modern medicine and public health measures into a rustic community, and then watch their efforts largely wasted under their own eyes. Indeed, such a conflict is what medical workers in the comparatively backward countries are asking for all the time. And then they complain about the slowness of their progress or, even worse, complain about the innate stupidity of the people whose conditions they are trying to better. They have entirely forgotten that even in the advanced Western countries they cannot bluntly ask people to change their habitual ways within a period of twenty or thirty years in the existing

social context. The author has seen European medical missionaries as well as Chinese medical upstarts condemning in toto all traditional ways and ideas of their patients. While working in the Peiping Union Medical College Hospital as a medical social worker from the years 1934 to 1936, the author had almost daily to deal with furious patients who had refused to cooperate in carrying out their treatments because some medical staff members had cursed them or otherwise shown gross discourtesy to them on account of their having, during their absence from the hospital, resorted to magic or other traditional practices of dealing with the ailment. Such medical students, though living in their mother country, never look at the social environment of their less fortunate sisters or brothers. In the end they settle in one of the big cities making their pot of money, while occasionally wondering why the country as a whole makes no progress in public health and scientific medicine. They will never understand. In the same way, medical missionaries who entirely ignore the measures provided in the rustic culture for dealing with an ailment will remain permanently on the outer fringe of the society into which they are trying to enter. If they are dealing with individual cases of illness they may be able to achieve results satisfactory to themselves with the detribalized individuals, and partial results with most others. If they attempt to touch upon ailments which affect their entire group, they may as well give up their efforts altogether.

It is perhaps unfortunate that modern medicine has been introduced into China largely by way of missionaries. The latter have undoubtedly been of some benefit to China, but the main trouble is that they and the students they have trained regard their system of cures with the firmness of the pilgrim's belief in the Bible.

It is conceivable that missionaries cannot allow their converts to adulterate their beliefs by indigenous religious ideas in which the converts have been brought up, though the author does not see how even that is to be realized. But the medical practitioners and missionaries need to realize that A doctor is not a preacher. The medical man's first duty is not to convert the patient or the community to his Western system of medical thought but how to introduce its fruits, Western medical practices, to a community immersed in a different mass of habits and conception. He has to understand thoroughly the medical aspect of the indigenous culture. By a careful analysis of the situation created by the epidemic in West Town, e.g., he will have seen that certain traditional measures are incompatible with scientific measures, some others are indifferent to them, and still others are helpful to them. He will also have seen that certain measures, though indifferent to modern medicine, are more deeply entrenched in the organization of the community than others. He will then be able intelligently to decide which traditional measures are to be encouraged, which to be discouraged, and which to be let alone or even utilized to the advantage of his efforts of improvement. In West Town, the author thinks, the prayer meetings and the taboos on food, etc., may, if means are found to incorporate them into the new measures, indeed contribute not inconsiderably to the furtherance of the modern health officer's desired end.

There is, however, a wider perspective. Having achieved this, the propagators of modern medicine and public health measures will merely have succeeded in creating certain new magics or new habitual and concrete ways of dealing with old problems for the rustic community, but not in inculcating in the mass of minds of the community the basic principles of modern health

measures and scientific medicine. The new magics may increase in number and variety if the external pressure remains favorable but will be dropped when no longer easily available, or will often be resorted to in totally erroneous ways. Like the Malaita dressers, the people may know enough to boil their instruments but will have no compunction in wiping them afterwards with dirty rags. Before the basic principles are common knowledge, this manner of regarding the sanitary measures as relating only to certain fixed objects and not to others is inevitable. For habit is concrete and not rational. People in their habitual behavior know "oughts" but do not have, nor concern themselves with, reasons for these "oughts". For these "oughts" are, to them, adequate explanations of their behavior.

Generally speaking, there are three ways in which modern health measures and medicine come into contact with a community as a whole. They may come by way of financial and technical aid entirely from outside; they may come by way of donation from a few outstanding wealthy individuals of the community; or they may come partly by way of taxation and partly by contributions not only from a few outstanding wealthy individuals but also from numerous small donors in the population as well. The first is largely the missionary way and the way of certain Chinese rural reform workers in the years before the present war. The second describes the condition of West Town. The last is a common practice in any industrialized country of the West.

We have thus obtained a kind of index by which we may be able to tell how far a community has moved towards building up the conditions for receiving modern health measures and scientific medicine, not only as concrete habits but ultimately also in terms of their basic principles. The missionary way and the way of West Town are about the same - except that the first usually involves jealous conviction while the second is easily a novel means to an old end, with the hospitals and schools occupying the corresponding positions of some traditional good deeds. As soon as the sources of support are withdrawn the people will return to where they were.

The third situation is different. It is true that not every town in a modern industrialized European nation can be entirely self-supporting as regards measures of public health. The government has often a hand in shifting resources from one locality with a surplus to make up the deficiency of another. But the people in the latter locality do not wait passively for outside help. They contribute their part, too, however small this part may be. When the West Town populace supports the injection and other health measures as they do the prayer meetings then they are on a permanent road to utilizing modern public health measures and scientific medicine. They do not have to be financially able to supply the entire need of the new provisions. Outstanding contributors within or without the community will still be important. The largest single donation to the cholera prayer meetings was two thousand and four hundred dollars, but the smallest donations included many fifty-cent, one dollar and two-dollar gifts. Only when people give to a cause of their own accord will they take such a cause seriously. But such a generalized support for the new measures on the part of the rustic population can never develop suddenly or by itself. If the medical missionaries, or the outstanding individuals, or even the government through its dictatorial powers, should aim at such a singular or sudden development, their efforts will necessarily fall far short of the desired results. For, each society is of many aspects, and the development of these aspects has to be more or less even. From our analysis of the situation created by the cholera epidemic in West Town and from our brief survey of conditions in several non-Chinese areas we have seen that

the question of scientific medicine and magic is primarily a matter of attitude. Assuming one attitude, the individual will follow one type of life; assuming another, his life will be a different one. But to use the word "assume" in this connection is really misleading. The individual has to grow up in a tradition which breeds one or the other attitude. If the individual grows up in the scientific tradition he will have opportunities of perceiving and experiencing the connection among certain diseases, certain germs, certain measures of sanitation and certain medical procedures and treatments. His experiences will not be confined to the relation between one disease and one measure to combat it alone; nor to relations between disorder and care in the realm of health alone. He may be enabled to acquire a power of abstraction which will make his attitude towards all aspects of life similar. If an individual grows up in the non-scientific rustic tradition, on the other hand his mind is bound up in the folkways, and he will perceive and experience things in their concrete forms. Magic and real knowledge will come to him in their traditionally undifferentiated form, known to him as something to be carried out or depended upon when certain types of life's problem have presented themselves. Following this, he is not likely to have a reflective understanding in the therapeutic principles of any medicine or magic, which in turn leads him, when he is ill, to resort to all cures indiscriminately. For just as any individual who thinks diseases are caused by spirits will be regarded as abnormal in a modern society with its tradition of science, so any individual who thinks diseases are caused by invisible germs to be killed by disinfectant liquids will equally be regarded as insane in a society where the scientific tradition is absent.

Unless all aspects of a society are moving more or less together in the right direction, the artificial efforts to change one aspect - such as ideas about health and treatment of diseases - even by education, are not likely to achieve permanent results. The social waste in such efforts is bound to be tremendous.

How will all aspects of a society move in the right direction more or less together? The author's answer is: This must come ultimately by way of industrialization and social equality.

Industrialization enables the people to raise their standard of living as a whole, which means the desire for improvement on the one hand and the material ability to afford the improvement on the other. Industrialization will give expression to scientific experiments and supply stimulus and means for further scientific enterprises. And industrialization provides easier communication and draws people together. One characteristic of agricultural or pre-industrial societies is that each society is segmented into some more or less isolated small communities. This condition breeds intense conservatism. It also emphasizes the concrete, for most members of the communities are apt to know each other intimately. The scope of the "we-group" is exceedingly small, and differences in customs are taken for granted. Easier communication and greater aggregates of human beings together provide ample opportunity for cultural contact, and therefore for reflective thinking about one's own rustic ways. This is the foundation of modern education, without which all efforts to batter down conservatism and non-scientific thinking will be in vain.

But all these opportunities for change may be useless, because of one flaw. The society has to be a "free" society, i.e., there must not be a caste structure of any sort, either like that in Africa, where the White and Black

do not mix together, have drastically different political and social rights and command unbelievably different wages and salaries for exactly the same work, or like that in India, with the Brahmins at the top and the "Untouchables" at the bottom. As has been made obvious in our foregoing analysis, introduction of public health measures and scientific medicine depends primarily upon a mental attitude. The development of mental attitude can never be restricted within one department of life alone and not extended to other departments of the same life. The superiority of the sciences of the present era over those of the preceding era is largely due to the fact that their technique has extended to a wider field of facts. What science it will be, the reader can imagine for himself, if its methods can be applied only to physics and not to chemistry, or to water in the river but not water in the kettle!

So it is with human affairs. The development of support for public health measures and scientific medicine depends ultimately upon a sound mental attitude. And a sound mental attitude depends upon the general training in sound scientific reasoning. In a society of slavery, or of caste, or of fate, even with all the industrial development of the world, sound scientific reasoning can never really hope to take a permanent root.

Only in a free and industrialized society will education on a large scale (i.e. mass education) be possible and become of real social value, for then education will receive the support of the mass of the people. This education refers to education for all purposes, such as professions, crafts, citizenship, and not hygiene alone. For only when education leads people somewhere in their daily pursuits will the people take it seriously. When there is no appropriate industrial and commercial background to absorb the educated many, education will either be dropped readily, or if not dropped be responsible for serious disfigurement of the social structure. The latter was, indeed, the experience of Chinese society during the twenty odd years before the opening of the present Sino-Japanese War, when the school-educated suffered from unemployment while the traditional industries and commerce had need but no place for them.(19) When the people drop other sides of their education they will drop the hygiene side too. The farmers will have no patience with their educated children who can contribute nothing materially to work on the farm but who insist on the importance of ventilation or of keeping away flies.

The reader will note that the author has so far merely outlined the essential and ascertainable conditions for developing a consistent and favorable attitude towards modern public health measures and scientific medicine in any given culture, but such conditions, and the rational attitude accompanying them, are far from being fully realized even in the advanced countries of the West. As mentioned before, their common people's patronizing the modern physician and medicine is often as much a matter of unreflective habit as the rustic folk's dependence upon the priests and native doctors. It may be that the ideal conditions outlined above are never to be realized to the full extent, but the West is undoubtedly strides ahead of the rustic East in this respect. The propagators of modern medicine and health measures in the rustic cultures need to realize where their efforts are most valuable in the long run and will lead to permanent results, and must refrain from insisting on an outright conversion of the rustic folk to their system of beliefs and ideas. They are responsible for blazing the trail, before the more systematic betterment on a wider scale is made possible through the operation of the factors

(19) This problem is touched upon in the author's article, "China's New Social Spirit", Asia, XLII, 9, September, 1942, pp. 506-509.

specified above, and have to avoid becoming a stumbling-black in the ultimate transformation by their intolerant and ignorant attitude which causes on their part waste and disappointment, and on the part of the rustic folk suspicion and antagonism.

APPENDIX

Part I

Three Prescriptions Locally Regarded As Most Effective

(1) Notice to the Public.

The present epidemic is, of course, pre-ordained in our fate. The symptoms of all patients appear, however, to be the same. These are vomiting, diarrhea, spasm, etc. These symptoms are those of cholera (Hue Lan, the modern Chinese translation of the term). The onset of the illness is a matter of a few minutes, and doctors (either Chinese or Western trained) may not arrive in time. From my personal experience, when illness comes, the best thing to do is to drink one small bottle (or half a bottle) of Bi La Sui or Sheng Ling Sui (both are forms of chlorodynum). At the same time take several tens of Mr. Ma Po-liang's Cholera Pills (Sa Ch'i Wan) (composition not known) and grind them into powder form. Put this powder on the tip of the patient's tongue and help the patient to swallow it with some boiling hot water. In this way the patient's illness will be half gone. Then you need to prick the Sa (a traditional term for cholera) and let out blood. Take first a thin hemp chord to tie each of the patient's fingers at the last joint. Use a needle to open up the flesh just above the finger nails and make them bleed. All fingers must be so opened, one by one. When blood has flowed out you will be able to tell the prognosis of the patient. If the blood is dark and thick the prognosis is bad. If the blood is fresh and thin the power of the illness is already slackening. In this way I cured my wife. I don't dare to be selfish and keep such a good cure to myself and have therefore decided to offer it to the public. I hope that this notice will receive the attention of all. It will be advisable for each family to purchase some of the aforementioned kinds of medicine (both liquid and pills) to prepare for a possible emergency. If there are poor people who cannot afford to buy such medicine they may come to my house, and I shall present them with some of the medicine. This is only an expression of a good will on my part. This notice is hereby respectfully presented to Elders, Uncles, Aunts and Sisters, with many best wishes for their health, by,

Signed
(The 20th of the 4th Moon,
Lunar Calendar).

(2) Dehydrated potash alum (Alumen usta), one tenth of a Ch'en (about 3.1249 gms.), mix in boiling soup or water and drink; will cure instantly. Must not take rice or rice-water, or ginger. If one of these prohibitions is violated the patient will be hopeless.

From the famous physician in the army (not dated)

(3) Good prescription for emergency.

For vomiting, diarrhea, convulsion and cholera, the patient ought at once to drink the juice from boiling Elsholtzia Patrini Garche (Latin) (Hsiang Hsu, Chinese). If the symptoms are augmented by fever and perspiration, add Lophanthus Rugosus (Hue Hsiang) to the boiling mixture.

(Neither signed nor dated)

PART II

Drugs which Appear in Two or More of the Collected Local Prescriptions(20)

Lophanthus rugosus, p. 1888. Function: promote digestion, stop vomiting; effective for cholera, etc.

Alumen usta, pp. 694-696. Function: relieves fever, stops diarrhea; effective for cholera.

(Dr. F. P. Shen, Professor of Medicine at the National Yunnan University, says that the drug is effective for absorption and adsorption just as Kaoline, if used in proper dosage.)

Peel of Sweet Orange, p. 1684. Function: Absorbs water, promotes perspiration, stops diarrhea and vomiting; effective for cholera.

Glycyrrhiza glabra, pp. 342-343. Function: Strengthens muscles, relieves abnormal hot or cold gas in the chest or abdomen, neutralizes poisons from all sources, etc.

Bupleurum falcatum, pp. 844-845. Function: relieves gas in the chest or abdomen, promotes digestion, relieves fever; especially effective for malaria, etc.

Atractylis ovata, Thunb., pp. 1574-1575. Function: promotes perspiration, absorbs water, helps digestion, etc. Also: with several other ingredients can be effective for cholera (p. 1579).

Alisma plantago, or Water Plantain, p. 1693. Function: absorbs water and relieves fever, stops diarrhea and vomiting, etc.

Fermented Rice (for alcoholic purposes), p. 1038. Function: relieves gas, promotes digestion, stops vomiting and diarrhea, etc.

Pinellia Tuberifera, p. 307 and p. 313. Function: absorbs water, stops vomit, stimulates the circulation of blood; effective for cholera, etc.

Siler divaricatum, B. et H., p. 666. Function: absorbs water; effective as a mild drug to stimulate perspiration, etc.

Cyprus longus, pp. 935-936. Function: smothens gas, relieves pains from different sources, helps digestion, etc.

Realgar, Orpiment, p. 1386. Function: absorbs water, kills worms, neutralizes all poisons, etc. etc.

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(20) The properties of these drugs are quoted from The Codex of Chinese Drugs, edited by the Society for the Study of Chinese Drugs (chief editor: C. J. Ch'en), 1935, in two volumes. The World Book Company, Shanghai. Preface by Dr. F. C. Yen (President, Shanghai Medical College) and other notable personalities in both Western and Chinese medical fields. The number following each drug refers to these two volumes.

PART III

Drugs in the Prescription which is Locally Regarded as Most Effective[21]

Perilla Nankinensis (Bene), pp. 1209-1210. Function: dispels cold, relieves gas in the abdomen; also effective for neutralizing poisons from fish or meat.

Piga tuber, p. 1735. Function: absorbs water, stops diarrhea and promotes urination, etc.

Pachyrhizus angulatus, pp. 1484-1485. Function: stimulates saliva and relieves thirst, promotes perspiration and relieves fever; stops vomiting, etc.

Platycodon grandiflorum A.D.C., pp. 979-980. Function: dispels cold, relieves abdominal congestion, etc.

Magnolia hypoleuca, p. 816. Function: absorbs water, promotes digestion, relieves abdominal congestion; effective for cholera and sun stroke, etc.

Cortex semenarcae (Latin) or Areca nut bare (English), p. 95. Function: stimulates the flowing of water (probably absorption of or expelling water), etc.

Pachyma Cocos (Latin or Lycoperdon English), pp. 1056. Function: expels water, stimulates urination, etc.

There are altogether fifteen drugs in this prescription. The others are: Lophanthus rugosus, Alisma plantago, Bupleurum falcatum, Atractylis ovata, Thumb., Peel of Sweet Orange, Pinellia tuberifera, Cyprus longus, Fermented Rice (for alcoholic purposes). All of these drugs have been examined in Part II of this Appendix.

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(21) In Part II, seven drugs have to do with stopping vomiting or diarrhea, and seven with absorption of water or stimulating the flow of water. In Part III, seven drugs have to do with absorption of water or stimulating the flow of water, and eight drugs with stopping vomiting or diarrhea. The rest, as far as we can see, are irrelevant for purposes of curing cholera.

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