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Time and change: A comparative study of Chinese and Western almanacs

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TIME AND CHANGE:
A COMPARATIVE STUDY OF CHINESE AND WESTERN ALMANACS

by

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ABSTRACT

Time and Change: A Comparative Study of Chinese and Western Almanacs

by

Nan Wang

Almanacs (*tongshu* in Chinese) were a ubiquitous feature of the social landscape in both China and the West from at least the seventeenth century onward, offering a rich topic for comparative analysis. They serve as a valuable index of popular beliefs, moral values, and cultural priorities. They also provide a window on the processes of social, political, and intellectual change in both environments. Using a comparative approach, this study tries to illustrate how the almanacs in both China and the West have mirrored their respective cultural environments and how the history of almanacs in both societies reflects the powerful changes brought about by the scientific and philosophical revolutions of seventeenth-century Europe. At the same time, it also seeks to show the limits of these revolutionary developments, the ways in which traditional beliefs and practices have persisted up to the present in each society, and the reasons for their persistence.
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# TABLE OF CONTENTS

Introduction, pp. 1-6

Chapter 1: Anglo-American Almanacs to c. 1700, pp. 7-29  
   I. A Brief Historical Overview  
   II. Astrology and Correlative Thought  
   III. Almanacs as Mirrors of Society  
   IV. Almanacs and Politics

Chapter 2: Chinese Almanacs to 1895, pp. 30-53  
   I. A Brief Historical Overview  
   II. Day-Selection and Correlative Cosmology  
   III. Almanacs and Chinese Society  
   IV. Almanacs and Politics

Chapter 3: Assaults on the Inherited Cosmology: The Western Experience, pp. 54-70  
   I. Early Attacks by Social Critics and Clergy  
   II. The Impact of the Scientific Revolution  
   III. American Almanacs and the "New Science"

Chapter 4: Assaults on the Inherited Cosmology: The Chinese Experience, pp. 71-88  
   I. Indigenous Attacks on Divination  
   II. The Question of "Cosmological Reformulation"  
   III. The Challenge of External Ideas

Chapter 5: Patterns of Change in Chinese Almanacs, pp. 89-108  
   I. The Late Qing Period, 1840-1911  
   II. Republican-Era Almanacs, 1911-1949  
   III. Almanacs in the People's Republic of China, 1949-Present

Chapter 6: The Persistence of "Tradition" in China and the West, pp. 109-128  
   I. The Contemporary West  
   II. Contemporary China

Conclusion, pp. 129-136

Bibliography of Secondary Works, pp. 137-141
Bibliography of Primary Sources, pp. 142-147
  I. Western Almanacs (selective)
  II. Chinese Almanacs, Calendars and Related Primary Sources

Appendices, pp. 148-154
INTRODUCTION

Webster's dictionary defines an almanac as "a publication containing astronomical and meteorological data arranged according to the days, weeks, and months of a given year, and often including a miscellany of other information." Although the term "almanac" is itself of medieval Arabic origin, almanacs of one kind or another have existed in civilizations throughout the world since the beginning of recorded time--or at least the beginning of astronomy and calendrical science. In pre-modern Europe and America, from the seventeenth century onward, almanacs such as Francis Moore's famous *Vox Stellarum* were a ubiquitous feature of the Western social landscape, as were almanacs (known generally as *tongshu* or *lishu*) in China. In both China and the West, these publications not only marked days, weeks, and months of the year, but also provided supplementary information from weather prediction and other forms of prognostication to practical advice on agriculture, animal husbandry, medicine, and household affairs. As an important cultural common denominator between China and the West for hundreds of years, almanacs offer an especially rich topic for comparative investigation.

A good deal of scholarly work has been done on British and American almanacs of the period from the seventeenth to the twentieth centuries, but very little research has been done on their Chinese counterparts for the same basic time frame. Moreover, to my knowledge, no scholar has yet made an attempt to compare almanacs in the two cultures explicitly, much less methodically. This thesis represents a preliminary effort to make such a comparison, paying particular attention to a variety of Chinese-language primary source materials that have so far been inadequately studied.

Until relatively recently, scholars in both China and the West tended to avoid traditional-style almanacs as the subject of serious historical investigation--despite, or more accurately because of, the great popularity that such works enjoyed with "the masses." In the eyes of elitist historians, the same "superstitious"
content of these publications that made them so popular in their time made them unworthy of the attention of intellectuals in future generations. Modern scholars tended to devote far more of their energy to documenting the rise of scientific rationalism in their respective societies than to exploring the "dark side" of traditional thought. This was especially true of Chinese scholars in the twentieth century, who remained embarrassed over what they perceived to be China's tardy entry into the "modern world" and who were therefore reluctant to celebrate (or even acknowledge) elements of folk belief branded "superstition" (mixin). So deep has been the prejudice of Chinese scholars against almanacs that, ironically, collections of tongshu in Western libraries are far more substantial than those in Chinese libraries.

Westerners, with a bit more cultural self-confidence, at least in the modern era, brought more balance into the picture. Keith Thomas, for example, wrote a book in 1971 entitled Religion and the Decline of Magic in which he documented at considerable length the "superstitious" practices of late medieval Europe. Significantly, however, his primary purpose was to describe the circumstances that made traditional modes of thought "increasingly out-dated" in the seventeenth and eighteenth centuries. By contrast, Herbert Leventhal's In the Shadow of the Enlightenment (1976) brought to light the previously "ignored" continuation of old-style beliefs in eighteenth century America--despite the apparent triumph of science at the time.

Two works written in the late 1970s provide us with an excellent overview of the evolution of almanacs in the West. Bernard Capp's English Almanacs: 1500-1800, published in 1979, supplies substantial information on the form, content, and development of English almanacs, from their astrological assumptions to their changing social and intellectual background. Marion Barber Stowell's Early American Almanacs: The Colonial Weekday Bible (1977) provides a similarly rich account of American almanacs from their origins to the eighteenth century. Neither of these books, however, adopts a comparative approach, much less an awareness of the history of almanacs in other places,
such as China. On the other hand, they have proven extremely useful to my own research.

For many centuries, and to this day in Hong Kong and Taiwan, traditional-style Chinese almanacs—remarkably similar in style and content to those of the sixteenth and seventeenth century West—were among the most widely-distributed publications in the entire country. Yet for the reasons I have suggested above, so far they have gained very little scholarly attention from modern Chinese historians. Some scholars on both the Mainland and Taiwan have shown an interest in the history of astronomy and calendar-making in China, but most of them focus clearly and self-consciously on the achievements (or failures) of China's pre-modern scientific tradition. For example, a contemporary historian in Fujian province (Chen Sidong), when discussing a renowned eighteenth-century almanac-maker by the name of Hong Chaohe, refers to him as an "astronomer" and calendrical specialist but never mentions Hong's divination practices.1 The well-known Taiwan scholar Huang Yi-Long, in a series of recent articles dealing with the theme of Sino-Western competition in the fields of astronomy and calendar-making during the early Qing dynasty (1644-1912), acknowledges the importance of popular almanacs and official calendars in his discussion of the social implications of traditional Chinese astronomy; but his emphasis remains steadfastly on the scientific rather than the cultural aspects of his topic.2

One of only a few contemporary Chinese works to give serious attention to subjects conventionally labeled "superstitious"—although it does not deal with almanacs per se—is a book by the husband-and-wife team of Hong Pimo and Jiang Yuzhen, entitled Zhongguo gudai suanming shu (The Ancient Divinatory Arts of China), published in Shanghai in 1991. But even this pioneering scholarly work follows long-standing conventions

2. See Huang (1990b), etc.
on the Mainland in disparaging the practice of Chinese fortune-telling. Although the authors provide a systematic and relatively objective treatise on the forms and fashions of traditional-style divination in the body of their text, in both their preface and the postface they urge that the old-fashioned "superstitious" mantic practices of China be eradicated. Their avowed rationale for writing the book is to "unmask" this pervasive but pernicious "feudal" tradition and expose it to the light of day, subjecting it to public scrutiny and criticism.\(^3\)

Most of the available literature on Chinese almanacs has been written by Westerners--many of them sojourners to China during the latter half of the nineteenth and the first half of the twentieth centuries. Their early writings describe the form and content of the almanacs and testify to their wide circulation and popular appeal. At the same time, however, their studies are often marred by a strong sense of cultural superiority.\(^4\) The most complete modern scholarly study of Chinese almanacs is Carole Morgan's *Le Tableau du Boeuf du Printemps: Etude d'une Page de l'almanach Chinois*, published in Paris in 1980. The content of this well-researched book is much more substantial than the title would suggest. An American writer, Martin Palmer, in his *T'ung Shu: The Ancient Chinese Almanac* (1986), provides a translation of a traditional-style almanac published recently in Hong Kong. In his preface the author gives an account of the general history of Chinese calendars and almanacs and suggests quite correctly that *tongshu* may be viewed as "a reflection of [Chinese] traditional life and values." However, Palmer's work falls far short of a sophisticated scholarly study.

In a recent book entitled *Fortune-tellers and Philosophers: Divination in Traditional Chinese Society* (1991), Richard J. Smith offers, among other things, a brief discussion of traditional Chinese calendars and almanacs in which he attempts to draw meaningful distinctions between the two types of calendrical works. He points

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\(^3\) Hong, pp. 276-77.

\(^4\) See the accounts of Lister, Martin, Parker, etc.
out, for example, that although both publications designated certain activities as lucky or unlucky for each day of the year, almanacs served as the literary vehicle for a great number of divination systems, not just "day-selection." In his conclusion, Smith calls for further investigation and comparative analysis of "the rich Chinese mantic tradition and its relationship to other such traditions." Responding to this call, I have attempted in my thesis to present a preliminary comparative study of Chinese and Western almanacs over the past few centuries, using British and American almanacs to represent "the West."

I am aware, of course, of the problems of generalizing over long periods of time--especially when dealing with cultures of extraordinary complexity and variety. I am also sensitive to the limitations of my sources. For example, most of the traditional-style Chinese almanacs I have been able to consult date only from the nineteenth century. I have, however, gained access to photocopies of at least a few earlier and many later Chinese tongshu, as well as a number of contemporary almanacs published in Taiwan, Hong Kong, and the Mainland.

In any case, a preliminary comparative analysis of the sort I have attempted seems long overdue. My study has two primary purposes. One is to show how popular almanacs have reflected, and continue to reflect, important beliefs, values and cultural priorities in both China and the West. My aim here is to underscore similar ideas and concerns as well as major differences in the two societies. Secondly, by placing almanacs, as distinctive cultural products, in their respective historical contexts, I hope to be able to trace the patterns of political, social, and intellectual change in the two environments. To put the matter another way, by examining the evolution of almanacs in China and the West--particularly the rise and fall of their influence and popularity--I hope to shed light on the complex process commonly referred to as "modernization." By looking at how individual almanac-makers in the two cultural environments have reacted to changing

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historical trends, I will try to delineate developmental patterns experienced by both China and the West in their transition from "tradition" to "modernity." Although the timing of the process was obviously different, many of the problems seem to have been the same.
CHAPTER 1

Anglo-American Almanacs to c. 1700

I. A Brief Historical Overview

Nowadays, the English term "almanac" usually refers to yearly-updated "books of facts" such as the World Almanac and Information Please Almanac. In essence, these modern works have little, if any, resemblance to earlier publications bearing the same name. Until the nineteenth century, a typical Western almanac almost always had an astrological component, something now generally viewed as an out-dated pseudo-science. For instance, G. Johnson, a mid-seventeenth-century English almanac-maker, named his almanac for 1660 An Account Astrological for the Year of Our Lord Above Expressed 1660. Almanacs also had titles that included terms such as "ephemeris" or "prognostication." An English almanac printed for 1684 bears one such title: Speculum Uranicum, or an Almanac and Prognostication for the Year of Our God 1684. In short, whereas both the modern annual data-book and early almanac are meant to be informational and practical, the former is mainly an objective account of what has happened, while the latter looks at the future and foretells what is going to happen based on astrological assumptions.

A standard traditional Western almanac, such as those that circulated during the sixteenth and seventeenth centuries in England, usually contains a calendar, details of celestial motions and eclipses, a depiction of "Man of the Signs," medical notes, weather forecasts, and prophecies of possible events for the year. Besides these features, it also carries other practical information, such as lists of fairs and festivals, famous names, important anniversaries, and tables of road directions. An English almanac-maker in 1620 boasted that his little book embraced humor, practical knowledge, health-care, "philosophy, physics and poesie,"

1. See Thomas, pp. 293-300 for a convenient summary.
and more. Indeed, the traditional almanac was designed to be used as a calendar (and sometimes as a diary as well), a reference book, entertainment, and moreover, practical guidance for people's everyday life—a valuable tool provided by learned masters of astrology.

The origin of almanacs can be traced back to remote antiquity. The embryo was formed once human beings began to measure time, mark the seasons, and develop cults focused on the power of celestial bodies. Thus, the evolution of almanacs went hand in hand with the development of ancient astronomy and calender-making, astrology, and, much later, printing. Some early almanacs did not even require a formal system of writing. Moses B. Cotsworth describes a system of wooden blocks of various sizes which were simply carved with signs and symbols that denoted times and certain important dates, such as Christian festivals. A close ancestor of sixteenth- and seventeenth-century almanacs was the so-called "clog almanac" of medieval times, employed long before the invention of printing in many parts of Europe. Another close relative was the "manuscript almanac," generally written on parchment. Both the "clog almanac" and the "manuscript almanac" were commonly used in the Middle Ages, but neither could claim the prestige and widespread popularity enjoyed by later printed almanacs.

Almanacs were among the earliest publications in Europe to follow the introduction of printing in the mid fifteenth century. The first English almanac, based on a French model, was printed in 1497 by Richard Pynson; but until the late sixteenth century, the British book-market continued to be dominated by European continental astrologers, whose almanacs and prognostication books were translated and then sold in England. Some of these astrologically oriented prognostication books were cheap editions aimed at the bottom end of the market for almanacs. The most

2. Capp, p. 23.
famous book in the sixteenth century was probably the *Erra Pater*, which continued to circulate widely well into the eighteenth century.\(^5\) Other well-known prognostication books were the *Kalenders of Shepherdes*, *Godfridus*, and *Compost of Ptolomeus*. Such works specialized in fortune-telling and in making long-range weather forecasts. They also listed lucky and unlucky days for various activities. Although sometimes distinguished from more "orthodox" almanacs by their "vulgar" content, both types of works provided advice on "how to make predictions about the future, and to choose days which would be particularly favorable for any given course of action."\(^6\) Books offering "perpetual prognostications" were also very popular, especially among less cultured readers.

During the Elizabethan era, domestic products gradually came to lead the British almanac market, as many native astrologers began to let their voices be heard. It was also during this period that the almanac "rapidly assumed its standard form."\(^7\) A monopoly to sell almanacs was granted to the London-based Stationer's Company, and hence virtually all of the almanacs compiled at this time were published by that company. After the expiration of its monopoly (officially in 1834, but in fact much earlier), more up-to-date and utilitarian materials began to be added by different almanac-makers, who also tried to cater to different readers with different political and religious backgrounds. Meanwhile, the seventeenth century had already begun to witness the "regional specialization" of almanacs. Almanac-makers began making calculations for the meridian of a particular town or village, and then inserting materials to cater to the readers of that particular region.\(^8\) Naturally enough, many such works were designed for the "honorable" or "famous" city of

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5. Thomas, p.295.
6. Ibid., p. 296.
8. Ibid., pp. 3-4.
London—for example Henry Phillipes' *An Almanac for the Year of Our Lord 1658*.

Some almanac-makers apparently did not want to limit the numbers of their readers unduly, however. Thus, although a certain almanac was said to be calculated for the meridian of London, it might "indifferently serve for England, Scotland, and Ireland." Similarly, one 1666 almanac by a "Well-wisher to the Mathematicks" claimed that it could be used "for the whole kingdom of Scotland, but most especially for the latitude and meridian of the honorable city of Aberdene."

The seventeenth century marked the heyday of English almanacs. It has been estimated that there were over two thousand different almanacs issued in the century, involving more than two hundred writers. William Lilly, John Gadbury, and John Patridge were particularly well-known figures at the time. Lilly's claim to fame was that he had often consulted with "Irish angels." The title of his widely known almanac, *Merlinus Anglicus*, derives from the notorious fifth-century Welsh "half-demon" prophet and astrologer. Lilly's book was not only extremely popular in the domestic market—it also found its way to the European continent, including Paris. In 1659 the *Merlinus Anglicus* was said to be selling 30,000 copies a year in England alone.

By this time, however, the cultural momentum of English almanacs had been lost, never to be regained. Most of the almanac giants passed away, one after another, at the beginning of the eighteenth century. In large measure this seems to have occurred because the once commonly accepted astrology, with which almanacs had been so closely associated, was gradually denied a place in the realm of the true sciences during this age of

"enlightenment." Nevertheless, many British publishers continued to issue modified versions of the "old-style," astrological-oriented almanacs until well into the nineteenth century.

Across the Atlantic ocean, the history of almanacs followed a somewhat similar pattern. Just as English almanacs had previously been modelled on European continental versions, early American almanac-makers drew inspiration from their English counterparts. When the American printing industry was first established in about 1640, British-style almanacs were among its earliest products.\(^3\) The first generation of American almanacs came to be known as "Philomath" or "Cambridge" almanacs. They were published exclusively by Harvard University, and most of their writers were young Harvard graduates, eager to show off their new scientific knowledge and skill in versification. Although they relied upon contemporary English almanacs as models for form and content, these young "philomaths" were less astrological-oriented than their English counterparts and therefore paid more attention to the dissemination of new scientific theories. The astrology contained in Philomath almanacs was primarily limited to explanations of the portents associated with eclipses and comets, since this was sanctioned by the Puritan's belief in Divine Providence.\(^4\)

By the end of the seventeenth century, Philomath almanacs had given way to a new generation of American almanacs. Breaking the informal Cambridge monopoly, John Foster set up a printing press elsewhere in 1675 and began to publish his own almanacs. In these works he added some meteorological advice for farmers as well as the traditional European "Man of the Signs," which had been edited out by the Harvard philomaths. John Tulley, another innovative almanac-maker, inserted many humorous and "vulgar" prognostications into his writings. Yet another, Daniel Leeds, added more practical materials for farmers. According to Marion Barber Stowell, these three individuals were

\(^3\) Stowell, p. 40.
\(^4\) Ibid, p. 42.
all crucial figures in producing what became known as the farmer's almanac. Its major features included astrology, humor, folk medicine, weather forecasts, and much practical information on various social and domestic activities.¹⁵

As the glamor of almanacs began to fade away in eighteenth-century England and on the European continent, American farmer's almanacs reached their prime. Each year such works, now produced by many different authors, reached a wide audience. Printing techniques were improved, and more ingredients were put in to cater to the needs and interests of American readers. Several distinguished printing families emerged, such as the Leeds family and the Franklin family, whose almanacs dominated the book market. Many almanac-makers were at the same time printers, physicians, and practical men of affairs. Few, however, were as serious about astrology as their English counterparts of the previous century. In the latter half of the 1700s, almanac-makers became aware of their female readers, and hence the Lady's Almanac came into being. A few women printers also established business that produced almanacs during this period.

As more forms of printed literature became available to American readers, and as more traditional beliefs were discredited by scientific minds, farmer's almanacs, like their English predecessors, gradually lost their immense popularity. In order to maintain their survival in a new and rapidly changing intellectual and cultural environment, American almanac-makers in the modern era found it necessary to add new elements and discard outmoded things, such as astrology. Over time, most almanacs became merely reference books of facts and statistics—a new category under an old name. However old-style almanacs have not become totally extinct. Every year, Robert B. Thomas's The Old Farmer's Almanac, allegedly begun in 1792, continues to make its appeal to not a few readers by offering weather

¹⁵. Ibid., pp. 61-62.
forecasts, planting tables, "zodiac secrets," and "recipes." (See chapter 6, section I.)

II. Astrology and Correlative Thought

As we have seen, what distinguishes traditional almanacs from modern books of facts using the same name is their respective world views. That is, the early English and American almanac-makers held a system of cosmolological beliefs fundamentally different from that of modern-day compilers of almanacs. Whereas the latter merely attempt to provide an objective and practical reference book for their readers, the former, like early Chinese almanac-makers, aimed at a grander goal: to disclose the secrets of the universe, and, if possible, to manipulate cosmic forces in order to benefit human beings.

Astrology, as an integral part of the established belief system in the pre-modern West, was the backbone of traditional Western almanacs and the foundation of all the other mantic arts. Its final removal from most almanacs by the nineteenth century symbolizes the triumph of modern scientific concepts over an ancient cosmological outlook. Yet until the modern scientific revolution, astrology represented the most systematic and comprehensive attempt to explain natural phenomena anywhere, East or West. Its history dates back thousands of years, from its early origins in Mesopotamia to its subsequent development under the Greeks and Romans. The astronomer Ptolemy (2nd century A.D.) played a significant role in shaping its basic rules, which remained more or less the same throughout the medieval period and into sixteenth and seventeenth century Europe. In the Ptolemaic view, the sun, the moon and the five planets were constantly moving around the earth and shifting positions with respect to each other against the backdrop of a fixed zodiac. It was assumed that the movement and position of

17. Capp, p. 15.
these celestial bodies exerted a powerful influence on earthly phenomena. The astrologer's task was therefore to calculate and predict their effects on earth. "Natural astrology" dealt with planetary influences on weather, plants, and human health, while "judicial astrology" focused on celestial effects in the realm of human affairs, such as war, social disorder, death, and personal fortunes.18

This notion of a relationship between celestial bodies and terrestrial beings existed within the larger framework of a correlative cosmology shared by most pre-modern Europeans. They believed that the five visible planets possessed "four qualities" in different mixtures: heat, cold, dryness, and moisture. These four qualities corresponded respectively to the "four elements"--fire, earth, air, and water--of which all terrestrial things were composed. It was also assumed that human physiology depended on "four humors," namely, phlegm, melancholy, blood, and choler, each of which corresponded with one particular "element." A disequilibrium of the four humors within an individual's body would change that person's temper and possibly force him or her to fall ill. All these factors formed a interrelated cosmic network involving celestial bodies, the earthly environment, and human beings. Any change in the sky would trigger a change on the earth or in human society. By observing and calculating celestial motions and conjunctions, practitioners of astrology were believed to be able to predict the future and offer appropriate advice.19

Astrologers did not disagree with Christian clergymen on the existence of a single omnipotent God as the one true Supreme Being. According to astrological theory, the stars themselves were not deities; God simply worked with and through the various heavenly bodies. Until the late seventeenth century, unusual phenomena, natural disasters, and personal misfortune were all

18. Thomas, p. 286.
commonly seen as manifestations of God's displeasure. It followed, then, that faith or repentance on the part of human beings might enable them to avert, or recover from, divine punishment.20 A belief in Providence thus only strengthened faith in the astrologer's art. Furthermore, as Bernard Capp has indicated, "astrology lay at the heart of mediaeval science," with ramifications that extended into "medicine, physiology, botany and metallurgy."21

The Renaissance, which witnessed a strong interest in occult sciences among leading intellectuals, contributed significantly to the intellectual prestige and social influence of astrology. From kings and bishops to mere commoners, the advice of astrologers was eagerly sought, and respected scholars and writers freely used astrological concepts in their writings. Astrology was also an integral part of Renaissance medicine.22 Among a great many prominent and royally patroned European astrologers in the sixteenth century, the Frenchman Nostradamus (1503-1566) proved to be one of the most successful and renowned. His prophesies continued to echo in later centuries, and even today they circulate in various parts of the world—in China as well as the West.

The rise of domestic English astrology began in the second half of the sixteenth century and was closely linked with the rebirth of mathematics. Gradually, translations of foreign astrological books and almanacs became replaced by home-grown vernacular literature. As a result, astrology became immensely popular, and it continued to prosper in the seventeenth century. During the English Civil War, for instance, the predictions of astrologers were used by both warring parties. Astrologers also played a significant role in medicine throughout the late Elizabethan and Stuart periods.23 In addition to the practice of

20. See Thomas, pp. 78-89.
21. Capp, p. 16.
medicine, specialists in astrology made social prophecies and weather forecasts, and chose proper times for carrying out certain activities. A number of these individuals, including William Lilly, were almanac-makers at the same time.

Initially, astrology developed more or less in tandem with mathematics, astronomy, and the other physical sciences. Gradually, however, scientists parted company with astrologers. The dramatic discoveries of individuals such as Copernicus, Newton, and others in the sixteenth and seventeenth centuries fundamentally undermined the position of astrology, at least in the eyes of European intellectuals. By the eighteenth century astrology had lost virtually all of its social prestige and intellectual support. Nonetheless, almanacs with astrological materials continued to be sold in Europe, and in America astrology—especially natural astrology—retained a certain vitality. As Leventhal observes, in the early eighteenth century the American colonists were still exposed to astrology in their formal education, despite its waning influence.24

III. Almanacs as Mirrors of Society

In seventeenth century England, as in eighteenth century America, almanacs were widely read by all social groups. Because these documents sold openly at low cost to the public, we may assume that they reflected the interests and concerns of the people who purchased them—their cosmological beliefs, their social values, their hopes and their fears. An examination of the content of English and American almanacs in the period from about 1600 to 1800 thus yields a panoramic view of two traditional societies on their way towards "modernity." During this time rural values and ways of life were still predominant, but the advancing step of commercialization, urbanization, and industrialization could clearly be heard by the eighteenth century.

Stuart almanac compilers, like the authors of American "farmer's almanacs," paid close attention to the seasonal rhythms of the agricultural calendar; they emphasized farming duties and celebrated the delights of an idyllic life. Each year, they provided their readers with up-dated information concerning various agrarian activities. They introduced new and unusual crops, provided guidance for activities such as grafting, dunging land, gelding livestock, and felling timber. The outlook of these seventeenth century writers is generally considered quite "informed and progressive" by modern standards--at least when compared with contemporary French almanac-makers, who merely recorded traditional times for certain planting and harvesting routines, all in a rather perfunctory way.  

Some of the rest of their material, however, had a far less "modern" character--for example, weather predictions based on astrological theories. These prognostications were usually inserted into calendar pages and broken down on an almost day-to-day basis. By keeping an almanac close at hand, a reader could learn beforehand the conditions of sunshine, the possibility of rain, and the temperature for a certain period of the year. Thus, he was able to prepare in advance for various agricultural, commercial, and domestic activities. Almanac-makers also identified various natural signs, such as cloud conditions and animal behavior, which might denote weather changes. The Poor Robin almanac of 1728 explained, for example, that "if sheep do bleat, play or skip wantonly, it is a sign of wet weather." Of course judgments like these might have nothing to do with astrology and were probably drawn from the experience of country folks over many generations.

Apart from weather predictions, almanac-makers calculated upcoming conditions concerning the harvest of crops, the well-being of livestock, and the market forces of supply and demand. Here, too, astrology and folk wisdom both came into play. Some

predictions sound like the advice of modern stock brokers. Thus we find a certain English almanac for 1678 telling its readers that in this year "hops . . . will be a very ticklish commodity, promising a great price, but suddenly falling, even contrary to all expectations." 27 It is easy to imagine that such predictions failed as often as they materialized—especially since each year the almanac-makers themselves could not reach unanimous conclusions. As a result, their prognostications periodically invited ridicule from contemporaries. Yet because no better system existed to make accurate predictions about nature, at least prior to the eighteenth century, and since natural astrology as a science was still universally believed in, such forecasts remained a standard feature of English almanacs. In colonial America, too, astrology and unscientific folklore guided the rhythms of agricultural life. As in Europe, farmers believed that the positions and phases of the moon were crucial to success in the raising of crops. One modern scholar remarks, "no one in the seventeenth century questioned the validity of moon farming." 28 Astrologically grounded almanacs helped farmers and gardeners in both Europe and America with zodiacal signs, moon phases, and the selection of proper times for sowing, weeding, and harvesting.

The emergence of cities, the growing commercialization, and the overseas expansion of Europe in the seventeenth century and thereafter did not go unnoticed by almanac-makers. Nor were they unaware of the increasing importance of occupations other than farming. Indeed, some almanac-makers compiled special works for occupational groups such as merchants, artisans, and sailors. Tables of accounts, weights and measures, and prices for commodities such as coal, beer, iron and timber were standard features of many almanacs well before the mid-seventeenth century. Yet fundamentally the outlook of almanacs remained agrarian. They praised the ideal country life and self-consciously celebrated the virtues and social importance of the farmer. At the

27. Capp, p. 114.
same time, however, they revealed certain social tensions between rural and urban life. One almanac-maker complained, for example, that the "husbandman" had done so much for the country and yet he was always being "slighted." He went on to assert that the husbandman was the "only happy man" in the world, unbothered by money and city life. 29 And even during the eighteenth century in America, almanac-makers still told amusing anecdotes about how smart countrymen had outwitted arrogant city fellows. 30

Almanac-makers also spoke out as social critics and upholders of conventional morality. Not surprisingly, English almanacs in the sixteenth and seventeenth century devoted a great deal of space to religious writing. There was information about Christianity and the church's various activities. Almanac-makers also engaged in religious teaching, using simple and easy-to-remember language. One early seventeenth century compiler summed up the essence of Christianity in a two-line verse: "Thy sin, thy death, the death of Christ, th'eternal pains of hell,/The day of doom, the joys of heaven, these six remember weil." The verse was so successful that one well-known Welsh Puritan copied it as an elementary summary of faith in his own preaching. 31

The opinions of almanac-makers found expression not only in verse, prefaces, formal essays, maxims, and proverbs but also in predictions of various sorts. Judging from the content of seventeenth century English almanacs, most readers believed in a harmonious but stratified society made up of nobility, gentry, and commoners. Although birth and wealth created inevitable differences among the various social classes, the compilers of almanacs did not endorse the exploitation or oppression of the poor and humble. Almanac-makers believed that the rich should be benevolent and responsible while the poor should remain loyal and peaceful.

29. Capp, p. 103.
30. Stowell, p. 205.
Bernard Capp uses the term "conservative paternalism" to describe the basic attitude of almanac-makers. As one illustration, he cites an almanac note for the last month of the year, which reminds the reader that "Cold December is come in,/The poor man's back is clothed thin,/Then feed and clothe him as you may/The Lord will it three fold pay." Most almanac-makers believed that kindness would be duly rewarded by God and that selfishness and cruelty on the part of the rich would be severely punished. On the other hand, discontent among the lower classes was also discouraged. George Wharton, a staunch Royalist during the English civil war, was fond of quoting from the Old Testament: "Curse not the king, no not in thy thoughts, and curse not the rich in thy bedchamber." Many almanac-makers seem to have envisioned, or at least hoped for, a utopian future in which all social classes coexisted peacefully and harmoniously.

Because English almanac-makers had to be careful not to offend either their noble patrons or their numerous lower class readers, they tended to emphasize ideals and values shared by all sectors of British society. By contrast, their counterparts in eighteenth century America adopted a more "progressive" outlook. Although the theme of harmony between rich and poor was still replayed, and stories of the English nobility continued to entertain American readers, common folks like farmers, tailors, carters, cockers and widows gained comparatively more attention in American almanacs. Almanac-makers depicted their works, their lives and their mutual relations. They encouraged all classes of people to get rich by virtue of hard-work, frugality and honesty in business. This outlook was, of course, perfectly consistent with the Puritan tradition of "pious industry."

The stories, anecdotes, and aphorisms of American almanacs are quite revealing, as a few examples may help to illustrate. Ellicott's Maryland and Virginia Almanac for 1787 tells the story

32. Ibid., p. 102.
33. Ibid., p.103.
34. Stowell, p. 273.
of how a tailor, with his practical skill, survived a famine, while a conjurer had to beg for food. *Hutchin's Improved Almanac* for 1766 describes a "Farmer's Dream," moralizing that "an honest industrious man may always find a pot of gold, whether from a pear tree, or the open field." And Benjamin Franklin's influential aphorisms (most of which were not his own creations), such as "the sleeping fox catches no poultry" and "God helps those who help themselves," established his reputation as the "quintessential ethical capitalist."35

Law was another major subject in both English and American almanacs. Although the compilers dutifully set down the dates and places of courts for their readers' reference, they held a decidedly negative attitude towards litigiousness. One English almanac warned, for example, that he "who speeds to law, shall slowly thrive,/And soon a beggar's path discern."36 Almanac-makers also decried the unfairness of existing laws: The man who stole a sheep was hanged but the robber of a nation prospered. Echoes of this ancient and universal outcry reverberated throughout England in the mid seventeenth century, but the social and political upheaval of the time brought little hope of legal reforms that would in any meaningful way curb the power of lawyers. Subsequent criticisms of the legal system in English almanacs bore reluctant witness to the growing significance of law in British society.

Almanacs frequently condemned specific abuses of the law, such as "excessive" legal fees. Lawyers, the obvious beneficiaries of the system, became a natural target. Thus an English almanac predicted that because of the "terrible abuson of the laws by some double-feeing attorneys," lawsuits during a particular year would prove "to be worse than losing debt."37 American almanac compilers were no more clement to the legal profession. Dr. Ames's almanac for 1750 provided a weather note for a certain

36. Capp, p. 106.
time, saying "I should predict good weather this week, but there's so many Courts, the lawyers may raise a Storm." The Virginia Almanac for 1771 sarcastically remarked on its October page that "the Summer's gone, the Court begins, Whoever lose, the lawyer wins." 38

Many almanacs paid special attention to domestic concerns--marriage, family life, and gender relations. The traditional family as described in these works usually centered on the husband; around him were his wife, children, and, perhaps, servants. In upholding the ideal of family harmony and moral responsibility, almanac-makers preferred to approach the issue from the negative side. Instead of recounting good examples of husbands, wives, and children, they were fond of telling (or foretelling) stories of family disputes, infidelity, and adultery. These tales presumably sounded more interesting to readers than dry lectures on morality. Domestic brawls, female insubordination, and sex scandals were the annual fare of English almanacs. Many almanac-makers liked to predict that at a certain time in the coming year couples would quarrel, and moreover, the wife would "lord over" the husband. An early seventeenth-century version of Erra Pater printed a long list of unlucky days for marriage. And one English almanac-maker seemed so disillusioned about the behavior of wives that he reached the following pessimistic conclusion: however good a woman might be, it was impossible to turn her into a good wife.

The theme of the "bad wife" was also prevalent in colonial America, judging from almanacs of the period. Benjamin Franklin observed in his Poor Richard's Almanac for 1735 that "three things are men most likely to be cheated in: a horse, a wig and a wife." Cuckoldry anecdotes seem to have been especially popular in American almanacs, and sometimes unsatisfactory wives were satirized in verse. Thus the compiler of the Kentucky Almanac for 1797 tells his readers: "Women are books and men their readers be---/In which oft times, their great errata see . . .

38. Stowell, p. 232.
If they are books, I wish that my wife were/An almanac, to change her ev'ry year."

Such misogynist themes reveal a common assumption of the natural inferiority of women. They were considered fragile and less intelligent than men, but more talkative and frivolous. Some almanac-makers spoke of women in relatively positive terms and criticized the double standard of gender that operated in American society; but even Jarah Jinner, the well-known woman almanac-maker who offered a lively defense of women's virtues and abilities, believed that they should not "usurp the breeches" of men. Furthermore, she offered the opinion that women tended to be garrulous and promiscuous.39

Not surprisingly, almanac-makers claimed to be experts not only in human relations but also in the fields of medicine and health-care. Astrology, linked with the "four humor" theory outlined above, had long been a part of traditional Western medicine, and although the influence of astrology had begun to decline at the higher levels of the medical profession in England during the seventeenth century, the wide distribution of almanacs at the same time made astrological medicine immensely popular. Most almanacs of the period contained medical notes as well as a depiction of the "Man of the Signs," also called "zodiacal man" or "Anatomy." This illustration was usually printed on the page following the title page. It displayed a naked and "debowelled" man surrounded by the symbols of twelve zodiac zones corresponding to the twelve parts of his body. The calendar section of the almanac indicated each day's zodiacal sign, so that the reader would be able to figure out which particular part of the body, the head, the heart or the limbs, would be under a particular astrological influence. When a person fell ill, he or she relied on the authority of almanacs to find a propitious time for undergoing blood-letting, purging, or other medical operations.

As repositories of medical information, almanacs quite naturally served also as manuals of pharmacology. They

prescribed, for example, folk remedies made of herbs and other materials, including exotic items such as bull's gall and camel's milk as well as more common products such as vinegar. A few of these concoctions were offered as cure-alls, but most were aimed at particular diseases. Some satisfied hygienic or veterinary needs, such as killing bugs or making cows yield more milk. At the same time, at least a few almanac-compilers provided their readers with astrological charms (known as sigils), which possessed the power to prevent disease, to repel fleas, and even to forestall haunting by ghosts and witches.

In providing practical advice on daily health-care issues, almanac-makers offered a similar blend of time-honored folk wisdom and astrological magic. On the one hand, they tended to emphasize the simple virtues of a balanced and moderate lifestyle. A typical exhortation read: "neither in labour, meat, or drink,/In sleep or venery/Exceed: but keep the golden mean/To hold thy health thereby."40 On the other hand, seventeenth-century almanacs often advised readers on when and how to wash and bathe from the point of view of astrological medicine, since many people still believed that activities such as bathing, hair-cutting, and nail-cutting should be done only in strict accordance with the "increase of the moon."41 In the same spirit, astrologers of medical science determined the proper times to engage in sex, and prescribed herbal or sigil aphrodisiacs or anti-aphrodisiacs. They even provided formulas for contraceptive purposes and discussed abortion methods. This, according to Bernard Capp, suggests "a widespread wish to be able to limit the family size."42 At the same time, however, it is worth noting that some almanacs offered advice concerning conception, and at least one popular English astrological handbook taught people how to conceive sons instead of daughters.43

40. Ibid., p. 117.
41. Thomas, p. 297.
42. Capp, p. 122.
43. Ibid.
In sum, the Western world of the seventeenth and eighteenth centuries, as revealed in almanacs, was one in which time-honored traditions proved remarkably resistant to change. New scientific discoveries and theories, for all their dramatic impact in some sectors of society, failed to eradicate old conceptual and behavioral patterns. It is true, of course, that inventions such as Galileo's telescope "snapped several key links in the chains of correspondence that were supposed to bind the cosmos together, and annulled the cardinal distinction, in Western cosmological thought, between sublunary and superlunary worlds."\textsuperscript{44} But neither traditional Western social values nor traditional Western cosmology met their end swiftly and simply.\textsuperscript{45} Particularly in rural environments, traditional attitudes had remarkable staying power, as Keith Thomas and others have noted. In the words of a British preacher in 1795: "Notwithstanding the great advances in learning and knowledge which have been made within the last two centuries, lamentable experience but too clearly proves how extremely deep . . . [old-fashioned] notions are still engraven upon the minds of thousands." Even religion itself seemed to some commentators to be "rationalism for the few and magic for the many"--at least in the English countryside.\textsuperscript{46}

IV. Almanacs and Politics

Almanacs mirrored political as well as social trends--not least because for much of the period under review, astrological concerns were as central to politics as they were to medicine. After all, one important endowment of astrologers was to foresee future events such as war, rebellion, and the rise and fall of great men. Their alleged foresight made them both a needed and a dreaded profession in the eyes of kings and princes. Since

\textsuperscript{44} Thomas. p. 666.
\textsuperscript{45} Henderson, p. 149.
\textsuperscript{46} Thomas, p. 666.
medieval times, astrologers had often been patronized by royalty, nobles, and even bishops, serving as personal and "official" prophets. However, rulers were well aware that political predictions could easily be used by enemies and rebels to legitimize their plots and to recruit followers. Thus the authorities always kept an eye on astrologers to prevent them from spreading disruptive information to other sectors of society. Astrologers, for their part, continued to ply their trade; but they exercised self-restraint whenever necessary and took care to cultivate and maintain close personal relationships with influential political figures.

Almanac-makers pursued similar strategies. Prior to the mid seventeenth century, the majority of them, at least in England, were cautious in dealing with political issues. Political predictions were vague and usually referred to foreign countries. Many almanac-makers simply shunned political speculations altogether. One reason might have been the growth of doubt concerning judicial astrology, but there was another more crucial factor: pressure from above. The Tudor and Stuart courts maintained strict censorship, supervising almanacs and other publications that contained threatening prognostications. Thus, for example, when an almanac for 1601 predicted social upheavals, it was banned after an uprising actually took place. The legal punishment reserved for imprudent almanac-makers included imprisonment, exile, and even death. Not surprisingly, therefore, we find cases of individuals who found it necessary to explain to the readers of their almanacs that they could not elaborate on certain portents for fear of displeasing the authorities. Many almanacs made a special point of declaring their respectful devotion to the crown, celebrating the kingdom, predicting the defeat and fall of its enemies, and condemning rebellions. Dissenting voices were extremely rare.47

The silence was broken, however, with the outbreak of the English Civil War. During this tumultuous period, many almanac-

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47. Capp, pp. 68-69.
makers (although not all) spoke up, actively making political predictions as well as political comments. Although some adopted a more or less neutral stance in the struggle, most took sides. And as they joined one or another of the two opposing camps, their prophesies and other writings became political propaganda. One of the most famous propagandists of the era was William Lilly. His experience during the "Great Rebellion" exemplified the almanac-makers' active involvement in the politics of the time and their complicated relationship with political authorities. Lilly, a yeoman's son and a former domestic servant, picked up astrology in about eight weeks during 1632. He did not begin to practice astrology in earnest, however, until 1641. By this time, England's political fabric had begun to unravel. Lilly's first printed almanac, the *Merlinus Anglicus*, appeared in 1644, and it soon became a best-seller. In this work he made clear his political stand. He described himself as a "friend to monarchy; to the Parliament of England" but an "enemy to Independency."

Although a supporter of Parliament from the very beginning, Lilly was not initially hostile to Charles I, whom he thought was surrounded by evil councillors. But an attack by a famous Royalist almanac-maker pushed Lilly more solidly into the Parliamentary camp. Thereafter, whenever a confrontation developed between the two hostile forces, Lilly would assure his readers that heavenly signs indicated a victory for Parliament and that the Royalist leaders were doomed to fail. In the siege of Colechester in 1648 Lilly was invited to the front to have his predictions read in order to raise the army's morale. On another occasion, excerpts from Lilly's almanac that predicted the success of a Parliamentary military expedition were read in front of the troops.

Significantly, however, Lilly's support for the pro-Parliament forces was not unconditional. In his almanac for 1645 he openly opposed the Presbyterians and the Independents, both of whom were on the Parliamentary side. He also criticized the

49. Capp, p. 75.
corruption of the "new lords, called committee-men." Later on, he leaned towards the Independents but continued to denounce the Presbyterians. And in a 1649 edition of the *Merlinus Anglicus* he called for a purge of the Parliament, at the same time predicting "with a mournful quill" the execution of Charles I. But while the English Civil War liberated almanac-makers from their political silence, it did not protect them from punishment. Lilly himself was once thrown into jail by an angry Parliament for his attacks on over-taxation and corruption and his prophecy that the people and the army would rise up to overthrow it. (His release was made possible only through the help of some prominent Independent leaders.)

In the Protectorate and Restoration periods that followed the Civil War, censorship tightened. James II, for instance, banned all political speculation. As a result, acquiescence and self-restraint again became the natural choice for almanac-makers--vastly preferable to prison life or exile. Even William Lilly succumbed temporarily to the pressure by complying with government censorship during the Protectorate period--in large part, presumably, because of his close personal ties to Cromwell. After the Protector's death, Lilly immediately endorsed his successor, only to find that his foresight had betrayed him. He threw his lot in with the short-lived military junta and lamented after the 1660 Restoration that the reversal had happened "above nature," revealing God's will.50 Many almanac writers now anxiously sought to show their loyalty to the new regime. They printed lists of English kings and praised the monarchical system. William Lilly was no exception. He declared that he would do nothing against the new king, and in an 1665 edition of the *Merlinus Anglicus* he expressed his gratitude to the monarch for showing clemency in spite of his previous record. Although his inaccurate predictions and the new caution in his writings cost his some popularity, he succeeded in avoiding reprisals from the authorities.

50. Ibid. p. 88.
In America, almanac-makers also played an active role in the political arena, at least in the eighteenth century. But unlike their counterparts in England during the previous century, who claimed to be both wise men and prophets, American writers during the American Revolution dispensed with this pretense and made their almanacs outright political pamphlets. Prior to the Revolution, American almanacs were rarely politically oriented. But after the hostility between the colonies and the mother country intensified, many almanac writers joined the movement for independence. Prefaces, essays, and even calendar pages were utilized to disseminate revolutionary ideas. Dr. Nathanael Low, among others, frequently exhorted his readers to resist British oppression. In his almanac for 1771 he emotionally condemned the "Boston massacre" and declared that, with divine assistance, "we shall work out our political salvation." These almanac-makers used simple but inflammatory language. They avoided abstract theoretical discussions so that every common farmer could follow their argument and heed their call. Their propaganda value to the American Revolution has been abundantly documented by modern scholars.51

In general, then, politically related discussions, whether in the form of prognostications or direct comments on contemporary events, were a standard feature of traditional Western almanacs. Although the authorities always tried to control political materials in the almanacs, and often exerted direct pressure on the almanac-makers themselves, in periods of turmoil and political uncertainty compilers found that they had relatively free rein in using their almanacs as political propaganda. Their wide popularity suggests, in turn, a strong political consciousness on the part of the common people. The contrast with China is striking.

51. Stowell, p. 179.
CHAPTER 2

Chinese Almanacs to 1895

I. A Brief Historical Overview

A great deal of confusion exists in the Western literature on Chinese almanacs. Although some authors correctly translate the term tongshu as "almanac," others render it "calendar." Even among the Chinese themselves, a popular designation, huangli—literally meaning "imperial calendar"—is often used interchangeably with the term tongshu. The problem with this casual usage is that it confuses works that correspond to the dictionary definition of "almanac" (see Introduction) with works of a rather different sort, namely the official annual calendars of each dynasty, promulgated by imperial decree and therefore sacred in status. These exalted publications were known as Shixian li or Shixian shu in the Qing period (1644-1912).1 Despite their different status, one cannot discuss popular almanacs without mentioning state calendars, since the two works shared the same historical origins and basic cosmology. In fact, the former were often consciously modelled on the latter. Moreover, in contrast to the fragmentary and relatively short history of almanacs in the West, the history of tongshu is part of an unbroken Chinese calendrical tradition extending back for thousands of years.

In China, as in many other ancient civilizations, astronomy and calendar-making were closely associated with the rhythms of agricultural life. A desire to understand and follow the ways of Heaven, and thus to live in harmony with the natural order, motivated ancient Chinese astronomers to keep improving their calendrical expertise. Furthermore, to "deliver the heavenly time" to human beings was traditionally regarded as an obligation and prerogative of the monarch, who assumed the role of the "Son of

1. See Morgan on this terminology.
Heaven." According to the classic known as the Shujing or Book of History, during the sage emperor Yao's reign (c. 2300 B.C.), Xi and He were commissioned to "pay reverence to Heaven, observe and denote the signs of the sun, the moon and the stars, and in great solemnity deliver the time to the people." Later on, almanac-makers would claim that this legendary event marked the beginning of a great profession which lasted for thousands of years.

By most traditional accounts, the semihistorical Xia dynasty (c. 2200-c.1500 B.C.) developed an advanced calendar that proved extremely well-suited for agricultural activities. This calendar was still followed faithfully by people of a much later age, and even Confucius is said to have spoken highly of "Xia time" (xiashì).² The Xia calendrical system was further refined during the Shang period (c. 1500-1100 B.C.)--the first fully historic Chinese dynasty. By this time, the state calendar had become closely tied with official sacrifices, including the worship of Heaven, as well as the royal practice of divination. On Shang dynasty oracle bones, there are many records concerning eclipses and other astronomical observations and even mention of an intercalary month, designed to reconcile lunar and solar years.³ The kings of the Zhou period (c. 1100-256 B.C.) followed the Shang tradition in upholding calendar-making as the exclusive prerogative of the throne. The classic Liji or Record of Rites describes the Zhou rituals relating to the construction and promulgation of the calendar, setting the model of imperial calendar making for the next two thousand years. The late Zhou period also witnessed the development of Chinese correlative cosmology (see next section).

The Han dynasty (206 B.C.-222 A.D.), established after the short-lived Qin empire, was a formative period in terms of both calendar-making and the refinement of traditional Chinese cosmology. During this period, by stages, the Han emperors consolidated and centralized their control over the state's massive

³. Ibid., p. 29.
bureaucracy, established correlative cosmology as an integral part of the newly established Confucian orthodoxy, and sponsored various calendrical reforms and related mathematical studies. From the Han era into the early twentieth century, the construction and promulgation of the state calendar in China became a highly ritualized yearly routine. Successive dynasties set up their own royal astronomy boards in which the official astronomers, under the auspices of the throne, carefully made calendars, selected lucky days to perform various rituals and other activities, and predicted and interpreted eclipses and other omens.

Although many Chinese almanac-makers tended to celebrate this divinatory calendrical science as a unique Chinese cultural tradition, alien influences contributed substantially to its evolution throughout the imperial era. During the cosmopolitan Tang dynasty (618-907), Indian astronomy helped to improve Chinese calendrical calculations and enriched the Chinese mantic arts. In the Yuan dynasty (1279-1368), Islamic astrologers were recruited by the Mongol court, and a version of the Arabic calendar was even used for a certain period of time. The Ming empire (1368-1644) that followed the Yuan maintained the service of the Muslim branch of the Board of Astronomy along with a traditional Chinese branch. Moreover, the Jesuit priests who came to Beijing in the late Ming period were given appointments in the Chinese branch of the Board of Astronomy as calendar experts and, much to their discomfort, as royal astrologers. The Jesuits and a few of their prominent Chinese converts proposed to the throne that the calendar be modeled on a more advanced Western system, but to no avail; and in any case the empire itself soon fell to peasant rebels.

Following the ruin of the Ming empire, the Manchu conquerors established the Qing dynasty (1644-1912). The pragmatic Jesuits promptly rendered their technical services to the new rulers, who were finally persuaded to reform the Chinese calendrical system with the aid of Western astronomical devices and mathematical techniques. Commenting on the fact that such a
reform had been suggested in the previous dynasty but was only realized under the new empire, the Qing History (Qingshi) asked rhetorically, "Is this not the Will of Heaven?" Here again we see a reflection of the ancient notion that the official calendar symbolizes the Mandate of Heaven and therefore imperial legitimacy. This idea did not, however, prevent private individuals from making almanacs based on the official model.

Even prior to the Han dynasty, various versions of the official calendar known as "day books" (rishu) circulated throughout much of China. These bamboo-strip rolls were the predecessors of latter-day almanacs. They resembled the imperial calendar but were obviously outside the direct control of the state. Significantly, the elaborate system of "day selection" (zeri) employed in these works, which enabled almanac-makers to choose auspicious and inauspicious times for various daily activities, continued to be used in almanacs from the Han dynasty onward. In fact, the system is still used in the "day charts" of contemporary Chinese almanacs produced in Hong Kong and Taiwan.

The use of woodblock printing in the Tang dynasty greatly enhanced the spread of popular almanacs. By this time, there were not only day-books in the Han fashion but also large numbers of illegal reprints of the imperial calendar itself. Attempts by the Tang authorities to curb this piracy went largely unheeded. In 835, for example, a scholar-official complained in his memorial to the Wenzong emperor that in many areas of China unscrupulous people were "woodblock-printing [official] calendars and openly selling them in the market. Each year, even before the Board of Astronomy proposes to have a new calendar issued, [illegal] calendars printed by them can already be seen everywhere." "This," he lamented, "violates the principle that . . . [the calendar] is a gift of the emperor."5

4. Qingshi, "Calendrical Section."
The Song dynasty (960-1279) saw a further proliferation of both pirated calendars and popular almanacs. By this time, if not before, almanacs had begun to incorporate visual and textual material drawn from Buddhist and Religious Daoist folk culture. Although the almanacs of late imperial China contained far more pages of prose and poetry, extant copies of Song period works show a remarkable resemblance to the tongshu of the Yuan, Ming, and Qing dynasties. By the Yuan period, the influence of popular almanacs was so great that the Mongol rulers, with the help of Chinese astrologers, formally incorporated "day selection" into their state calendars. From this time onward, both official calendars and popular almanacs designated certain activities as lucky or unlucky for virtually every day of the year. Qing almanacs followed the basic format of the Ming, just as Qing calendars conformed to Ming models.

Although many Qing almanac-makers consciously modelled their works on the Qing state calendar and other officially sanctioned astrological works (see below), tongshu differed from Shixian shu in several important aspects. First of all, privately compiled and locally published tongshu lacked the intellectual and social prestige of their imperial counterparts. Whereas the compilers of Shixian shu were all royally paid astronomers with official rank, almanac-makers were mostly private citizens of humbler status. Although some enjoyed good reputations, they managed to maintain and expand their trade only by passing down their skills to their children or to their pupils. A noteworthy example is Hong Chaohe, a native of Fujian province, whose descendents and disciples could be found not only throughout his home province but also in Taiwan and even Southeast Asian Chinese communities.6

Another feature distinguishing almanacs from calendars was that the former were privately printed, inexpensive, and widely available, while the latter were officially produced, costly, and their distribution was carefully controlled. Even when the state

6. Hong Yongyan, Quanzhou Hongshi bainian li, p. ii.
made official works available to the public as "people's calendars" (minli) they were still quite expensive in comparison to almanacs.

Although extremely cheap, tongshu contained a great deal of material that was invariably absent from state calendars. Shixian shu lacked, for example, woodblock illustrations of people, places and things. One of the most important of such illustrations, prominently displayed at the beginning of all Chinese almanacs (but never seen in calendars produced by the Qing government), was the "spring ox" (chunniu) and "herdsman" (shentong or mangshen). These two figures predicted agricultural conditions for the coming year based on elaborate cosmological calculations and a rich color symbolism. Other material not to be found in official calendars were morality tales, divination systems, and all kinds of practical advice. The titles of many almanacs suggest their utilitarian emphasis: Bianmin tongshu (Almanac for the Convenience of the People); Zouji bianlan (A Handy Reference for Selecting Good Luck) and Daquan tongshu (Comprehensive Almanac). Some almanac-makers even gave special attention to particular groups of readers; hence designations such as the Guanshang bianlan (A Handy Reference for Officials and Merchants) or Guanshang kuailan (A Quick Reference for Officials and Merchants). But regardless of their audience and designation, the major purpose of Chinese almanacs was always the same. In the words of the famous tongshu-complier, Hong Chaohe: "The almanac is to help people seek good fortune and avoid bad fortune."8

During the late Qing period, following the Opium War and the imposition of the notorious unequal-treaty system (1842-1860), Western ideas penetrated China to an unprecedented extent. Although very few of these concepts found their way into the almanacs of the nineteenth century (and none at all appeared in official state calendars), Chinese intellectuals found inspiration in Western political writings; and eventually, in 1911, the Qing

7. See Morgan.
8. Jicheng tang Hong Chaohe shou nan Bincheng tongshu, 1815.
dynasty fell to the forces of republican revolution. This event terminated forever the history of imperial state calendars. The new regime adopted a Western-style calendar, and soon a new education system, patterned largely on Western models, was established nationwide. In this revolutionary environment a number of traditional beliefs and practices fell under attack. The traditional mantic arts, for example, were branded as "superstitious." Yet despite such critiques, Chinese tongshu, with their former content entirely intact, continued to enjoy commercial success throughout the entire Republican period on the Mainland (1912-1949)--and to this day in Hong Kong and Taiwan. Only in the People's Republic after 1949 do we find significant departures from the traditional model.

II. "Day Selection" and Correlative Cosmology

In the words of a modern Taiwan astrologer, a tongshu is a book about "the study of day-selection" (zeri_xue). This ancient "science," he claims, is so profound and comprehensive that it not only "covers both Heaven and Earth" but also "encompasses all things in between." As professional "selection masters," responsible for choosing auspicious and inauspicious times for various social and domestic activities, traditional almanac-makers observed "heavenly patterns" (tianwen), studied "earthly configurations" (dili), and examined human nature (renqing; lit. human feelings). Their ultimate purpose, as they often stated, was to help people to make the best use of cosmic forces so as to safeguard and improve individual lives. Their labor yielded not merely a simple calendrical record or a believe-it-or-not fortune-telling handbook but a comprehensive explanation of the universe, designed explicitly to guide people's behavior in accordance with the natural order.

The idea of a correspondence or cosmic "resonance" (gan_ying) between Heaven and Man was basic to traditional

Chinese thinking. China's first calendar, supposedly compiled during the legendary sage-emperor Yao's reign, symbolized at least mythologically the impulse to harmonize human behavior with heavenly patterns. But what exactly was "Heaven" (Tian)? According to Feng Youlan, a well-known historian of Chinese philosophy, the Chinese character tian has had at least five different meanings: (1) a material or physical sky; (2) an anthropomorphic deity presiding over "Heaven;" (3) an impersonal dispenser of fate (ming); (4) an equivalent of the English word "nature;" and (5) an amorphous ethical entity embracing moral principles and responding to the morality of human beings.  

Generally speaking, during late imperial times, and certainly during the Qing dynasty, in their everyday lives elites conceived of Heaven primarily as an amorphous ethical entity, while commoners tended to view it in a less abstract and perhaps more personal way—rather like a supernatural emperor in charge of a bureaucratically organized world of spiritual beings. In any case, to most Chinese there was no single transcendent Supreme Being comparable to God in the Judeo-Christian tradition. A "pragmatic rationalism" was prevalent in the society and people were mostly concerned with the well-being of their present life.  

The tradition of the Chinese monarch's identification as the "Son of the Heaven" is supposed to have started with Qi (c. 2000 B. C.), the purported founder of the Xia dynasty, who, as the Shujing tells us, declared that he would "with due respect execute laws and punishments on behalf of Heaven." From that time onward, Chinese rulers performed yearly sacrifices to Heaven, which, like

11. In the Lunyu or Analects, Confucius defines Heaven as the great origin of the seasons and of all creatures. One modern Marxist scholar maintains that this attitude, which is typical of the text of the Yijing or Book of Changes shows a strong "materialistic" orientation in early Chinese philosophy. See Lü Shaogang, pp. 122-44.  
12. Li Zehou, p. 303-4.
the promulgation of the state calendar, were viewed as an exclusive royal right. As the mediators between Heaven and Earth, Chinese rulers were responsible for maintaining cosmic harmony. If Heaven was displeased with the ruler's performance, it could demonstrate its sentiments by means of weather changes, floods, earthquakes, eclipses and comets. These celestial signs served notice to the "Son of Heaven" that the social order and the natural order were not fully congruent, and that the emperor would have to take steps to rectify the situation, usually through administrative reform.

Also central to the Chinese world view was an ordered universe in which the forces of yin and yang, the so-called five elements (wuxing), the eight trigrams of the Yijing or Book of Changes, the ten "heavenly stems" and twelve "earthly branches" of the sexagenary cycle, and a great many other cosmic variables--including both "real" stars and "star-spirits"--interacted with each other and resonated with "things of a similar sort" (tonglei). During the Qing dynasty, the imperial court sponsored the compilation of several key works, including the Xingli kaoyuan (An Investigation into the Origins of Astrological Calendars) and Xieji bianfang shu (Book on Harmonizing the Seasons and Distinguishing the Directions), which systematically expounded the general theories and major concepts of this orthodox world view. Private almanac-makers, for their part, helped to popularize the orthodox cosmology, both in their own day-charts (see below) and in the divination systems they included in the body of their texts.

In many respects, China's correlative cosmology can be compared with that of the pre-Enlightenment West. The five elements of the Chinese tradition, for example--identified with earth, wood, fire, water and metal--are roughly comparable to the four elements of the Western tradition. And just as the four elements corresponded to the four qualities and four humors, so the five elements corresponded to similar numerical configurations, including the five directions, the five organs, the
five senses, the five musical notes, the five grains, the five sacrifices and so on.\textsuperscript{13}

Traditional Chinese astrology also had a correlative component. For instance, each of the five visible planets corresponded with one of the five elements. But the primary operators in the heavens were over two hundred star-spirits--some of which were positive (\textit{shen}) but most of which were negative (\textit{sha}). These star-spirits had special significance, for ultimately they determined whether activities would be auspicious or inauspicious at any given moment, in any given place. Most star-spirits did not exist as actual celestial bodies in the fashion of the planets, but they still possessed tangible power. The influence of a given "star," whether manifest or invisible, depended on its relationship to other stars (whether in harmony or opposition), its phase (ascendant or descendant), the time of its apogee, and its correlative relationship to the "five elements" and the cyclical characters of the year in question.\textsuperscript{14}

Like celestial officials, star-spirits operated under the general "jurisdiction" of Heaven. But Heaven, however conceived, was not willful in the fashion of the Judeo-Christian God. And whereas God in the West revealed only what God chose to reveal, the Chinese believed that all the secrets of the universe were ultimately accessible to human beings--or at least to those who possessed sufficient "sincerity" (\textit{cheng}). This was the divinatory premise behind the hallowed \textit{Yijing}. Thus, even orthodox Confucian scholars held as an article of deep faith that "fate" (\textit{ming}) could be known--and to a degree manipulated--by means of moral learning and by following the ways of Heaven. Commoners perhaps placed less emphasis on self-cultivation than on magic in "establishing fate" (\textit{liming}), but all sectors of Chinese society gravitated toward the mantic arts.

\textsuperscript{13} For details on traditional Chinese correlative cosmology, see Henderson, chapter 1.
\textsuperscript{14} Smith (1992), pp. 10-11.
These arts—from astrology, geomancy, and numerology, to physiognomy, weather prediction, and the analysis of Chinese written characters—embodied the cosmological world view outlined above. This cosmology was also an official and integral part of the state's ideology—expressed concretely in the "day charts" of the annual calendar as well as in popular almanacs. These charts of vertical columns, which marked every day of the year, provided cosmologically grounded advice on whether certain activities would be auspicious or inauspicious for a given day. Reflecting, perhaps, a Chinese obsession with order, these stipulations were far more detailed than those of Western almanacs, and they emanated from the throne itself.

The Collected Statutes of the Qing dynasty list sixty-seven such activities under the heading "for imperial use" (yuyong) and sixty for "almanac selection" (tongshu xuanze). Of the sixty-seven categories of imperial concern, a number dealt with the specific responsibilities and prerogatives of the emperor and his agents: the promulgation of decrees, the bestowal of favors and rewards, personnel matters, diplomatic and military affairs, banquets, and so forth. The rest had to do with more mundane activities, such as education, domestic rituals, travelling, moving, building, seeking health care, etc. These activities were also included in the long list entitled "almanac-selection."

The categories stipulated for "almanac selection" were the following: "sacrificing to ancestors, praying for good fortune, praying for a son, sending documents to superiors, being ennobled, sending a memorial to the throne, receiving an official appointment, inheriting noble rank, meeting with relatives or friends, starting school, "capping" (a mark of adulthood for young males), travelling, taking up an official post, going on a tour of inspection and mingling with the people, undertaking various marriage ceremonies (several separate categories are mentioned here), adopting a child, moving (as in changing residence), setting up a bed, getting rid of things, taking a bath, shaving the head, clipping fingernails and toenails, seeking medical treatment, caring for the eyes, sewing or embroidering, cutting out clothes,
building a dam, breaking ground for a building, erecting pillars and setting up roof beams, building or repairing a storehouse, working metal, using a grass thatch, weaving silk, reopening a business, issuing bonds, doing business, opening a storehouse, selling goods, buying or repairing property, cutting a canal, digging a well, setting up a treadle-operated pestle (for grinding grain), mending walls and repairing holes, sweeping the floor, decorating walls, leveling roads, pulling down a house, demolishing a wall, cutting lumber, catching animals, hunting game, fishing, crossing a river by boat, planting, herding or tending animals, breaking ground for burial, burying the dead, and beginning to save money.  

Significantly, although the day-columns of official calendars were consistent empire-wide, almanacs did not always agree them in particulars. Nor did almanac-makers always agree with one another in their predictions regarding "lucky" and "unlucky" activities for various days. Nonetheless, there seems to have been enough of a "fit" to maintain public belief in the inherited cosmology.

III. Almanacs and Chinese Society

Like Western almanacs, Chinese tongshu provide a valuable perspective on values, beliefs, and social practices. From the dawn of recorded history to this day, China has remained an overwhelmingly agrarian society. For more than three thousand years, at least four-fifths of the Chinese people have worked the land. This demographic reality has exerted a profound influence on every aspect of Chinese life, past, and present.

Naturally enough Chinese almanacs were literally "farmer's almanacs," designed to guide various agricultural activities, and to mark the dates for a wide range of rural activities, from periodic festivals and ancestral sacrifices to the worship of various deities.

15. Ibid., pp. 13-14.
on their "birthdays." With the aid of devices such as the "spring ox" and "herdsman," almanac-makers also told their readers, with an authoritative tone and in poetic style, whether a certain region would have a dry or rainy year, whether sufficient grain or silk could be produced, and whether the livestock would be safe. However, compared with the detailed weather prognostications of traditional Western almanacs, the information they provided was highly symbolic and ritualistic.

"Day selection" furnished almanac readers with mantic guidance for many agricultural routines. For each day of the year, as indicated above, special "day selection notes" (rijiāo) predicted whether it was auspicious or not to undertake planting, harvesting, fishing and hunting, livestock-raising, well-digging and various other construction projects. These "selection notes," which were easy to understand, even for those who were not fully literate, helped to dictate the structure of peasant life. At the same time, however, selection-masters took care to include non-agrarian activities into their day columns. Stipulations regarding travel and doing business, for example, suggest an obvious awareness of a commercial clientele. Likewise, advice on sending memorials and undertaking official responsibilities indicates a scholarly audience. Indeed, we may assume that urban dwellers made up a significant proportion of tongshu readers. Yet even in the nineteenth century--at least prior to 1895--there is nothing like the interest in overseas navigation and trade shown by Western almanacs of the seventeenth century.

Although orthodox Confucianism disdained merchant activity and condemned narrow self-interest, almanac-makers were not ashamed to "talk of profit" (yanli). In addition to providing selection notes on business-related activities, they usually supplied several fortune-telling techniques designed in part to reveal the reader's financial prospects. Some, like Li Chunfeng's "Numerological Calculations" (liuren shike)--which found its way into most Qing-period almanacs--determined whether or not a particular deal made at a particular time would yield a good result. Most other divination systems included in
almanacs, such as geomancy, physiognomy, dream analysis, and omen interpretation, also show a preoccupation with making (or losing) money.

Selection notes and the explicit concerns of these same divination schemes also attest to the extraordinary importance in Chinese society of propriety, etiquette, and ceremonial duties. Life-cycle rituals were matters of cosmic significance, and thus the ceremonies surrounding birth, adulthood, marriage, death, and ancestor worship loom especially large in Chinese almanacs. So do family affairs generally. One of the best indices of Chinese hopes and fears regarding domestic life can be found in the sections of almanacs known as "The Duke of Zhou's Interpretation of Dreams" (Zhongong jiemeng). These sections, which typically consist of at least a hundred seven-character phrases explaining the content of dreams, reflect a strong desire to maintain a happy and peaceful family life and to produce male heirs. They also provide one of the rare outlets, aside from popular novels and short stories, for explicit discussions of sexual misconduct.

Generally speaking, the interpretations assume a male reader, although the dreamer may be male or female. If a person dreams of a bright sky or of fondling small stones, the family will have a healthy male baby. The same thing will happen if a renovated door appears in a dream. But if a door opens by itself, it means one's wife may be having an affair. If a door breaks by itself, one's servants will desert the family. Picking up a mirror denotes finding a good wife; but if someone else has one's mirror, it means that something terrible might happen to his wife. Oddly enough, fighting between a couple indicates reconciliation. If a city gate is wide open or the entrance to the palace is blocked in a dream, one must be wary of gossip or quarrels (koushe). If the dreamer is dressed in white, somebody must be plotting against him.

Social conflict was a common anxiety among the Chinese--expressed in almanacs not only in the sections on dream analysis, but also in the parts related to omen interpretation. Thus, for example, we discover that if a person hears a ringing in the left
ear at the chou hours (1 a.m.-3 a.m.) there will be some sort of quarrel. The same may be true if one's ears feel hot at the xu or hai hours (7 p.m.-9 p.m. and 9 p. m.-11 p. m., respectively), or if one's cheeks feel hot at the wei hours (1 p.m.-3 p.m.). Of all forms of social discord, lawsuits were especially unpleasant. A deep stigma attached to all forms of litigation in traditional Chinese society, and in most respects the Chinese legal process was terrifying by design. As a result, people tried to avoid recourse to law at all costs. Yet virtually all the divinatory material in Chinese almanacs suggest that the fear of litigation was a real and constant one.

"Lord Guan's Spiritual Slips" (Guangong lingqian), contained in many Qing almanacs, had a number of individual predictions relating directly to lawsuits. Some told the person consulting the oracle to avoid or cease litigation, and in some cases, to seek "reconciliation" (he) in a dispute. A slip denoting "extremely bad luck" tended to indicate that, among other possible misfortunes, the inquirer would suffer from a time-consuming lawsuit that could have disastrous results. There were, to be sure, a few slips of "very good luck" that foretold "victory" or "finding justice" in the courts; but the most one could normally hope for was a slip that suggested "an immediate ending" or "an immediate solution" to a lawsuit.

One reason many Chinese people feared the legal system was that it applied unequally to the various social classes. By statute, "mean" people (jianmin; about one percent of the population, consisting of indentured servants, entertainers, beggars, former criminals, etc.) were subordinate to commoners, just as commoners were subordinate to degree-holders (shenshi, or "gentry) and officials. It followed, then, that a crime committed by a "mean" person against a commoner (or a commoner against a member of the elite) had to be punished more severely than the

17. For a brief discussion on the traditional Chinese concept of law and the imperial legal system, see Smith (1983), pp. 26, 42.
same crime committed by a commoner against a "mean" person (or an elite person against a commoner). This alone encouraged lower class Chinese to seek social mobility through the the civil service examination system. This theme ran throughout Chinese almanacs throughout the Qing period. Whereas early English almanac-makers tended to champion benevolence in an aristocratic society, and American compilers defined personal success in professional and business terms, Chinese almanac-makers measured it terms of scholastic accomplishments (examination degrees) and bureaucratic advancement.

In theory, even a humble peasant's son could one day become rich, respectable, and politically powerful simply by studying hard and passing the various levels of the imperial examinations. This was China's version of the Horatio Alger myth. As late as 1904, one year before the examination system was abolished, almanac-makers still actively encouraged the dream. The compiler of the Guanshang bianlan, for example, like many of his colleagues in China, illustrated by means of physiognomy (in this case, face reading) the kind of people who could acquire noble rank, become top ministers, or at least attain a place in the middle ranks of the Chinese bureaucracy. In order to climb the ladder of success most rapidly, however, one often needed the support of a benevolent social superior, some sort of personal "connection" (guanxi). Thus, "meeting a noble character" (guiren) is a constant theme in tongshu predictions. In the absence of this sort of patronage in traditional Chinese society, bureaucratic advancement was often difficult--especially for those who had only the lowest degree, or who had purchased their rank. Recognizing their anxiety at time when competition for bureaucratic posts was especially acute, some almanac-makers in the late Qing period provided helpful information and rules concerning the "filling official vacancies" (buque).

Like prestige and wealth, good health and longevity were as important to the Chinese as to Westerners--perhaps more so in

light of the enormous respect given to the elderly in traditional China. A copy of a tongshu not only helped a person to "seek good fortune and avoid bad fortune"; it also gave advice on how to maintain health and long life, offering both natural and supernatural remedies to cure diseases. These ranged from herbal medicines to "charms" designed to exorcize evil spirits, heal afflictions, and even to "subdue" mosquitoes. Almanacs were also full of health and life-span predictions, as well as warnings over possibly hazardous situations in life— notably the nearly universal "Twenty-six Dangerous Passes [for a Growing Child]" (ershiliu guan).

The theme of health runs through almost all of the sections of Chinese tongshu. As in the early seventeenth-century West, almanac-makers in China often claimed expertise in the field of medicine and for the same basic reason: Traditional Chinese medical science fell comfortably within the larger framework of Chinese correlative cosmology. One modern scholar goes so far as to say that it represents the "great achievement and the typical pattern" of the Chinese cosmological system.19 The ancient medical work known as the Huangdi neijing (Inner Classic of the Yellow Emperor) discusses at length how yin and yang and the "five elements" function in human beings according to relationships of cosmic correspondence. Naturally enough, Chinese diviners and doctors had a close affinity to each other. They held the same world view, engaged in similar practices, shared the same social status and were often subjected to the same social prejudices. In fact, many individuals in traditional China practiced both medicine and the mantic arts.20

What readers wanted, and what almanac makers offered them, were various means of keeping good health and dealing with illness. The author of the Daquan tongshu for 1819 provides a typical example of the way almanac-makers played the role of folk physician and pharmacist. Among the many problems he

19. Li Zehou, p.165.
sought to deal with were various forms of dysentery ("red and white"), blood-related diseases, hernias and other intestinal afflictions, as well as more common maladies such as coughing, vomiting, lack of milk after child-birth, cramps, and snake- or dog-bites. He also provided formulas to keep people from going bald, to kill mosquitoes and bed bugs, and even to help shrink the already-small bound feet of women. Furthermore, he analysed the nutritional elements and medical value of a great many food items based on traditional Chinese medical concepts. Among the miscellaneous prescriptions offered by the Daquan tongshu were a large number of conventional herbs as well as a few more exotic items such as ashes from an infant's burned hair and turtle shells.21

In the traditional Chinese view, sex and medicine, like divination and medicine, were closely related, since all reflected the same assumptions about cosmological correspondence. Generally speaking, however, sex was a taboo subject for open discussion in traditional China. Nonetheless, some works, such as the Daquan tongshu mentioned above, made an outright exception by talking in detail about sexual intercourse, pregnancy, and menstruation. Based on the principles of yin and yang medical theory, the author spoke out against early marriage, sexual indulgence, drinking alcohol before having sex, and having sex without the female partner's emotional participation. However, the primary intention of the author was not to teach the people to have a better sex life but to show the right way for husbands to "beget male children." The pragmatic-minded compiler also prescribed several aphrodisiacs and contraceptive formulas and even included a prescription for aborting an "illegitimate" foetus. However, such explicit discussions were quite rare in Qing almanacs.

Almanac-makers not only offered practical advice in their pages; they also acted as the upholders of social morality. However, lacking the prestige and responsibilities of Confucian

scholar-officials, they did not trouble themselves with the burden of expounding abstruse Confucian theories and concepts. Rather, they simply reiterated the established moral principles of the society in a straightforward way, without much flowery style. As with the sections on day-selection and prognostication in Chinese almanacs, much of the moral teaching to be found in *tongshu* revolved around family life and relations. Filial piety (*xiao*) was a particularly powerful preoccupation. Thus many almanacs printed versions of the well-known "Twenty-four Models of Filial Piety" (ershisi *xiao*), which celebrated the devotion of children to their parents.

Many of these stories are straightforward accounts of individuals such as Wu Meng, who invited mosquitoes to feed on his own flesh rather than that of his parents; or "Old Laizi," who at the age of 70 entertained his parents by pretending to be a child. But one story focuses on the theme of divine retribution. It tells of a young model couple who, in time of famine, decided to bury their baby in order to save food for the husband's aging mother. But as they were digging the hole, they unearthed a pot of gold. The moral of the story was that the filial virtue of the couple had moved Heaven to reward them. On the other hand, of course, unfilial behavior invited punishment. Thus we find in one 1873 almanac twelve pages of moral stories, including one about how three undutiful daughters-in-law were turned into lower animals in their next life.

This emphasis on filial piety in Chinese almanacs had no real counterpart in English or American almanacs. In fact, Westerners in nineteenth-century China were horrified to learn that Chinese *tongshu* carried stories that sanctioned infanticide in the name of filial piety.22 They knew, of course, the story of Abraham, and how he was asked by God to sacrifice his son. What they found difficult to imagine was that the Chinese people could substitute the authority of an invisible Supreme Being with the authority of human beings--namely ancient sages like Confucius and their own

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22. Lister, pp. 241-42.
parents. Although the Ten Commandments decreed that people should honor their fathers and mothers, these Commandments came from God and were actually challenged in Christianity by Christ himself. At several points in the New Testament, Jesus explicitly denies his worldly family for the sake of his "Heavenly Father." "Woman," he says to his mother at one point, "what have I to do with thee?" No respectable Chinese could say such a thing.23

On the whole, however, the culture gap between Qing China and the premodern West was not as great as one might think. In general, traditional Chinese society as reflected in the pages of Qing almanacs shared some important features with pre-Enlightenment England and early colonial America: an emphasis on a rural economy and rural values, a commitment to social harmony in a stratified order, the unquestioned dominance of males in the family and society at large, a belief in occult powers, and similar medical assumptions and practices. The primary difference was that the West was poised for a dramatic breakthrough in its social life, generated in large measure by economic forces and expansionistic impulses that can be detected in the content of Western almanacs since at least the mid-seventeenth century. By contrast, until the end of the nineteenth century, Chinese almanacs reflected no sense of incipient social or political change, much less a sense of revolutionary possibilities.

IV. Almanacs and Politics

In Qing dynasty China, where the maintenance of social order and political orthodoxy were of vital concern to the alien Manchu rulers, almanacs as a widespread means of printed communication were inevitably subject to close supervision. Almanac makers had to be aware of two potential threats they might pose to the imperial authority: One, a possible infringement upon the emperor's right and power to "fix the time" and to

regulate activities for all of his subjects; and two, the possibility of social disturbances created by irresponsible prophesies. Most Qing almanac makers seemed to understand the dangers involved and knew very well what they could and could not do.

The profound political importance of the calendar is a distinctive feature of the Chinese tradition. A modern Western scholar comments that the obsession with perfecting the calendar on the part of successive Chinese dynasties "suggests that the calendar was not primarily a practical but rather a ritual vehicle, reflecting more the sovereign's cosmic identity than his stewardship of an agriculturally oriented realm." 24 As the supreme patriarch on earth and the key harmonizer between Heaven and man, it was the sacred duty of the "Son of Heaven" to observe the heavenly signs and designate time for human beings on earth. The Qing court, like its dynastic predecessors, turned the yearly promulgation of the state calendar into a set of elaborate rituals. Several different versions of each year's calendar, in different designs and in different languages--Manchu, Chinese and Mongolian--were issued in great solemnity to Manchu nobles, Chinese officials, Mongolian princes and envoys from tributary kingdoms such as Annam (Vietnam), Korea and the Liuqiu (Ryukyu) Islands. The use of the imperially designed calendar symbolized the emperor's legitimacy and his "universal" sovereignty. By law the court made calendar-making an imperial monopoly and violators were subject to severe penalties. As previously indicated, the state prohibited any unauthorized publication of Shixian shu, and declared that popular almanacs must not only adhere to imperial designations for lucky and unlucky activities but also follow orthodox divination principles and submit to official supervision.

Any usurpation of calendrical prerogatives was taken as a symbol of a political challenge to the established authorities. Even works that made no claim to be "official" might be suppressed, such as the early nineteenth century handbook entitled San Fo

yingjie tongguan tongshu (Comprehensive Almanac for Responding to the Kalpas of the Three Buddhas). According to the Jiaqing emperor, the rebel Lin Qing used this dangerous document to "deceive the people" and "violate the authority of Heaven." After discovering the almanac, the emperor ordered all copies destroyed and engaged in a massive manhunt for the authors and publishers. In 1851, soon after the Taiping Rebellion broke out, the rebels issued their own calendar and proclaimed their own reign title (nianhao) as a way of repudiating the legitimacy of the Qing court. This was considered to be a mortal threat by the Manchus. And when the dynasty was finally toppled at the end of 1911, one of the first measures taken by the new regime was to abolish the Shixian calendar, adopt the Gregorian system, and establish a new way of dating official documents: The First Year of the Republic (1912). In short, Chinese calendars were always closely associated with political authority.

With the few exceptions noted above, Qing almanac-makers played it safe. When their traditional calculations occasionally came into conflict with the imperial authorities, they easily made compromises. In the sixth year of the Yongzheng emperor (1728), for example, an edict transmitted through the Board of Astronomy (Qintianjian) sought to regulate the "styles of the popular almanacs" (minshu shiyang). The edict ordered that daily prediction notes about "happy occasions" should all be deleted on the dates of the death anniversaries of imperial ancestors. It also provided a list of activities that it termed "happy occasions," such as submitting memorials, visiting relatives and friends, marriage and childbirth. In response, many almanac-makers reproduced the edict verbatim on their front pages. The Daquan tongshu for 1819, published in Foshan, dutifully stated that "in conformity with the edict," which was issued almost a hundred years ago, it would print the imperial death anniversaries on their respective

dates "so that readers can easily observe them and know what to follow and what to avoid." 26

As evidence of their devotion to the Qing dynasty and their complete subordination to state authority, all almanac-makers used the present emperor’s reign title to mark the year, and many claimed the Shixian shu and the Xieji bianfang shu as their self-conscious calendrical and divinatory models. They also sought official support for their effort to "translate" the content of these exalted imperial publications into a more comprehensible form. Sometimes Qing officials themselves took the initiative in disseminating such works. Thus we find Jiangsu governor Fei Chun remarking in a preface to the Zouji bianlan, which enjoyed wide distribution in late eighteenth and early nineteenth century China, that the imperially sanctioned Xieji was undisputably authoritative and accurate, "but because of its extremely large size, it is not only difficult for people from remote areas to purchase, but also difficult for them to carry along." Having found an impressive, privately compiled almanac based on the Xieji, the governor ordered it copied into a smaller version and put into print, so that "common folks" (shumin) could share its benefits. 27 Wu Hancai, a retired official with a jinshi degree, wrote a similar preface in 1796 for a tongshu compiled by his relative Hong Chaohu. In it, he remarked that although great imperial works like the Xieji had long been circulating, "some people have only heard about them and have never had access to them, while some people are unable to understand their meaning even though they have read them." 28

Clearly the most politically correct and publicly prestigious almanacs were those that enjoyed such official support. It is possible that bureaucrats benefitted financially from their sponsorship of almanacs, but I have found no direct evidence to suggest this form of corruption. Rather, the prefaces written by

26. Daquan tongshu, 1819.
27. Zouji bianlan, 1820. Fei’s preface was written in 1797.
officials seem to show the degree to which most tongshu-makers bowed to the omnipresent Chinese state. This did not mean, however, that they failed to see the advantages in invoking bureaucratic power in order to safeguard their own economic interests. On the contrary. Thus, for instance, the publisher of the Guanshang kuailan for 1908 printed a long statement by a local government official to the effect that any unauthorized reproduction of the book in question would be severely punished by the government.29

In any event, no official would dare to risk befriending a "selection master" if there were even the slightest hint of political heresy in his work. For this reason, mainstream almanac-makers shunned political topics entirely. Conscious of their social position and their professional specialization, they cared more about the fate and well-being of individuals than about the country's future. Even during the late Qing period, at a time of "internal disorder and external calamity" (neiyu waihuan), almanac-makers remained profoundly apolitical. A tongshu for 1895 did not even mention the fateful Sino-Japanese War that had broken out the previous year—although in a new section devoted to foreign heads of state the compiler nonchalantly printed, among other figures, the portraits of the Japanese and Korean emperors.30 Only after China's devastating defeat at the hands of Japan did Chinese almanac-makers begin to break out of old patterns of thought. And even then, their main concession to the modern era was the inclusion in tongshu of new information from the West and Japan, not the articulation of a new political awareness. For better or worse, China produced no William Lilly.

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29. Guanshang kuailan, 1908.
30. Zouji bianlan, 1895.
CHAPTER 3

Assaults on the Inherited Cosmology: The Western Experience

I. Early Attacks by Social Critics and Clergy

Even during the heyday of English almanacs in the sixteenth and seventeenth centuries—at a time when astrology was still an important component of such books as well as the foundation for all other popular forms of divination—the practice of star-gazing as a means of finding clues to the future was not without its skeptics and outright enemies. In fact, the very commercial success of almanacs helped to intensify debate over the validity of astrology. But those who first occupied the frontlines in the war against astrology during the Rennaisance and Reformation were not true scientists. Like critics of divination in earlier times, from Cicero to Pico della Mirandola, they questioned the principles of astrology not on scientific grounds but on one or more of four fundamental assumptions: (1) Astrology seemed to defy "common sense;" (2) astrologers seemed to be "frauds;" (3) predictions of the future often had unhealthy social effects; and (4) astrology seemed to be incompatible with certain prevailing religious beliefs—specifically, the idea that the stars rather than either God or the free will of human beings determined the future.¹

Of the two major forms of astrology, judicial astrology, with its emphasis on the way the stars were supposed to influence human activities, was more controversial than natural astrology. Increasingly people questioned how different individuals born at the same time, and thus with the same nativities, could have different fortunes; and, conversely, how men born at different times could share a common fate in battle.² But many criticisms of astrology during the sixteenth and seventeenth century were

¹. Thomas, p. 360.
². Ibid., p. 352.
inspired simply by the faulty predictions of astrologers in the realm of nature. Forecasts about the weather and economic prospects, for example--both of which were commonly made in almanacs--increasingly came under attack. As Bernard Capp remarks, weather prediction, with its usual failures, had a "long history of ridicule."³

Inaccurate predictions were not new, of course, but they gained force as more and more people had access to printed forecasts in almanacs and related works of prognostication. Readers of such works also became more aware of the conflicts and contradictions among astrologers themselves--not least when almanac-makers themselves attacked each other, accusing rivals of being quacks while assuring readers of their own reliability. During the English Civil War in particular, as different almanac-makers threw their lot in with different factions, they all predicted victory for their respective sides. Thus, during the siege of Colchester in 1648, while William Lilly and John Booker were encouraging the attacking parliamentary troops with their optimistic prophesies, a man named Humphrey stayed with the loyalist garrison, predicting the failure of the attacking enemy. After the battle, the defeated loyalists felt cheated by the almanac-maker, who had to run for his life.⁴ The fact that many people viewed the predictions of almanacs as a form of political propaganda rather than a scientific system of forecasting the future did not diminish criticisms of diviners.

Some criticisms of astrology in the sixteenth century were based on what contemporaries saw as the negative economic effects of erroneous predictions. One English critic wrote, for example, "What a dearth of victuals you [astrologers] cause in the commonwealth while farmers . . . . believing your oracles of the intemperance of weather do so craftily dispose their wares that in abundance of all things the common people suffer a great and

³ Capp, p. 203.
⁴ Ibid., p. 251
grievous scarcity." Throughout the sixteenth and seventeenth centuries in England, critics of astrologers and almanac-makers repeatedly charged that they were in fact responsible for contributing to famine conditions by making false forecasts of bad weather and poor harvests, thus encouraging the practice of hoarding food. Astrologers were also periodically accused of creating social disturbances and inviting family discord. Their predictions about infidelity, quarrels, rivalry and interference in people's lives often provoked strong resentment. Lilly once received threatening mail for interfering in people's lives, and an astrologer named John Lambe was actually killed by an angry mob in a London street, presumably because of his meddling ways.

Yet these criticisms did not pose a fundamental threat to astrology as a belief system. In the first place, the predictions of astrologers were usually couched in highly ambiguous language, which, as Jonathan Swift satirically remarked in his *Prediction for the Year 1708*, could "equally suit any age or country in the world" and might be applied to any event that had happened. Also, astrologers were adept at offering straightforward and plausible explanations for their mistakes. They claimed, for instance, that like every other existing science, astrology was not yet perfect. Moreover, not every astrologer was a great master. Thus, as they frequently reminded people, errors were inevitable.

A number of astrologers emphasized that they were merely pointing out the "probability" of events, as indicated by astral signs. Man's free will could, they argued, play a crucial part in reaching the final result. Furthermore, and obviously, if man was able to change the "natural" course of events, so was God. Thus, after making various predictions in his almanac for 1647, Vincent Wing stated that "the Almighty [might] dispose otherwise and so frustrate the portents of Heaven." Similarly, having failed to foresee the Restoration in his own almanac, William Lilly simply

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6. Ibid., 347.
remarked that God must have created a "miracle." The unexpected events that had occurred, asserted Lilly, were "acts above nature." 7

Clergymen and theologians could hardly allow astrologers and almanac-makers to speak for God in this way—particularly after the Protestant Reformation. As they saw things, the claim by astrologers that stars had the power to influence human life and history was a denial of the ultimate supremacy of God. In his An Admonition Against Astrology Judicial (1561), John Calvin accused astrologers of "put[ting] . . . clouds before our eyes to drive us away from the Providence of God." An English writer argued in the early seventeenth century that those who regulated their lives by means of almanacs were showing a distrust of God. 8 At the same time, the idea of astral determinism, which seemed to deny man's free will and moral responsibility, was also incompatible with Calvin's notion of "predestination." If astrology were to be accepted, one English Protestant asked, "shall we not then have predestination [in the acts of election and reprobation] urged to depend upon the destinating star?" Finally, many clergymen and theologians openly associated astrology with witchcraft and demonism; and more than one critic described astrology as the "Devil's work." 9 As is well known, Protestants vigorously denied the magical claims made by the Medieval church, and criticized many of its traditional religious concepts and rituals as "superstitious."

In short, astrology came under heavy fire during and after the Reformation as yet another form of "popery superstition." Significantly, however, as Keith Thomas convincingly demonstrates, the attacks on astrology by post-Reformation clergymen did not necessarily represent the triumph of a new scientific spirit and rationality among a new generation of religious thinkers. In fact, much of the bitterness between clerics

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8. Thomas, p. 365.
and astrologers arose from their "professional" rivalry. Clergymen often complained that people spent too much time consulting their almanacs instead of reading the Scriptures, and that too many people put their ignorant trust in astrologers rather than in God. As Thomas remarks, the fact that people should turn to star-gazers for help rather than to traditional pastoral agencies of the church seemed a direct threat to the "moral supremacy" of the clergy, "whose privilege it had always been to resolve disputes and to give advice."10

In a similar vein, Capp suggests that after the church in England abandoned the notion that it could manipulate supernatural powers, astrologers filled the vacancy that a great number of priests had left and became "major beneficiaries" of the clerical defection.11 Moreover, quite a few clergymen apparently still practiced astrology or at least consulted astrologers. Almanac-maker John Gadbury stated, for instance, that "many of our best in astrology have been divines"; and William Lilly's case book indicates that clergymen as well as lay people came to consult him about personal and religious matters. Common questions included promotion and benefices. Many clerics had to visit him in secret, however, to avoid embarrassment, reflecting the diminishing acceptability of astrology among the clergy.12

Interestingly enough, in denouncing the pseudo-science of astrology, some clergymen demonstrated a decidedly anti-scientific spirit. Instead of trying to separate star-gazing from true science, some theologians simply accused astrology of exploring the wrong area with the wrong method. One early seventeenth century English critic held that "Heaven is God's book, which we must leave to him."13 To such people, the attempt to use systematic, mathematically based techniques as a means of exploring questions of mankind, nature and the future disrupted a

13. Ibid., p. 359.
mysterious world created and governed by God. In their eyes, both astrology and science contradicted the "inspirational and subjective nature of religious revelations."  

In any case, almanac-makers and other astrology believers did not stand speechless amid the ferocious assault led by clerics and theologians. Rather, they vocally defended their profession. One approach was by prestigious association. In his A Defence of Judicial Astrology (1603), Sir Christopher Heydon tried to prove astrology's authenticity by making a long list of leaders, clergymen and scholars in history who believed in it. Another approach was to do battle with religious critics on their own theological ground. For instance, in an effort to counter biblical warnings against star-worship, almanac-makers used Biblical references to demonstrate the legitimacy of their profession. To refute the notion that astrology was a pagan belief, a few even found a way to "prove" the divine origin of astrology, claiming that it was Abraham who passed it on to the Egyptians, and later, the Arabs picked it up. They also claimed that Noah, Moses, David, and even Jesus were all great ancient astrologers. One almanac-maker went so far as to add the three Magi to the list.  

The compilers of almanacs naturally tried to reconcile astrology with Christianity whenever possible—if only to ease their customers' doubts and fears. Some argued that since inauspicious astral signs were indications of God's wrath, and since God in his mercy issued omens so that men would have an opportunity to repent, imminent disaster could in fact be averted. As one almanac-maker explained, the whole purpose of prognostication was meant as "a premonition to prevent the danger ensuing." Here again we see the argument that the stars do not usurp God's sovereignty but only act as his agents. Another almanac-compiler argued ingeniously that it was not right for the followers of "Master Calvin" to "take away all the influence of Heaven"; and yet another, John Booker, declared in his 1657  

15. Capp, p. 33; also Thomas, pp. 382-83.
almanac that the stars were "militia" of God's government. They were, he said, the "host of Heaven" with God being "the Lord of Hosts." Echoing the refrain of individuals such as Vincent Wing and William Lilly, almanac-makers emphasized that God could always intervene to change a future course which had previously been indicated by the stars. When predicting possible disasters, almanac-makers reminded their readers that "so threat the stars, but One on high/Above the Stars, when His will's bent, Can stay their force, and put them by,/they nought can do without's consent."17

By 1700 astrology seemed to losing much of its "religious respectability." Yet without the dramatic discoveries of the Scientific Revolution, it is difficult to imagine that either the criticisms of laymen or the clergy's determined assault could have fundamentally discredited astrology as a belief system. As long as astrologers were willing to say that the stars were God's agents rather than independant operators, and that the independent activities of both God and man might change a future that had been previously indicated by heavenly signs, the theoretical foundations of astrology remained intact. As Sir Walter Raleigh remarked: if people acknowledged that God had give virtue to everything on earth, "why should we rob the beautiful stars of their working powers?"18 It was only when the operating assumptions of astrology--its actual mechanics--began to be undermined by scientific discoveries that astrology suffered a mortal blow.

II. The Impact of the Scientific Revolution

When Nicolaus Copernicus' De Revolutionibus Orbium Caelestium was published in 1543, nobody, including the author himself, realized that a great scientific revolution had begun. In

17. Ibid.; Also Thomas, p. 383.
about one and a half centuries, the revolution it ushered in would profoundly transform Western philosophical and cosmological inquiry. It would also sound the death-knell of astrology as a serious and respectable science. The process began simply enough. In trying to solve some mathematical problems in astronomy which the traditional Ptolemaic system proved insufficient to explain, Copernicus formulated his own hypothesis, the heliocentric theory, to reach a new mathematical harmony in explaining celestial movements. Although the author did as much as he could to maintain the overall structure of the traditional cosmology, his book, in the words of Thomas Kuhn, "gave rise to a revolution that it had scarcely enunciated." 19

Although initially the new heliocentric hypothesis of Copernicus did not offer more effective and accurate calculations than the previous Ptolemaic system, its geometric neatness had a great "aesthetic" appeal to an increasing number of contemporary and later "Copernicans," leading to a history-making revolution in the field of astronomy. 20 In the hands of people like Kepler, Galileo, and Bruno, Copernican theory was became improved, refined, and expanded. By the end of the seventeenth century, Issac Newton, standing on the shoulders of other intellectual giants, expanded the Copernican Revolution well beyond astronomy, into other fields of mathematics, natural science, philosophy and cosmology. As a direct result, people's ideas about nature and man's relationship to nature underwent a profound reorientation. The old world-view began to crumble.

As the old cosmology decayed irretrievably, astrology as a "science" collapsed with it. In the new cosmological landscape, the earth was deprived of its centrality and uniqueness and the stars were denied their judicial superiority. Now the earth was just like any of the other five visible planets, all of which constantly moved around the sun in predictable patterns. Eclipses and comets, too, were natural, predictable events. Even the solar

19. Kuhn, p. 135  
20. Ibid., p. 175.
system was not nearly so significant in a vast universe with countless stars and other "solar" systems. In the light of this new vision, it became hard to imagine that celestial bodies, so numerous and so far way, could exert any discernible and calculable effects on the earth. Furthermore, the Newtonian mechanical view completely reshaped people's ways of looking at things and seeking explanations for them. As Lynn Thorndike remarks, Newton's new laws of nature overthrew and replaced the whole set of Aristotelian concepts, which "lay at the very core of the astrological belief pattern."

However, this intellectual transformation was a gradual process. Its rate "varied greatly with social status, professional affiliation, and religious belief." The old cosmological beliefs and many related practices lingered on well into the eighteenth century in spite of the apparent triumph of science and rationality. Even the pioneering "Copernicans" were often caught between the two world-views. As indicated above, Copernicus himself was only aiming at a technical renovation within his own specialty; he had no intention of changing the traditional world-view--even as he recognized that he might be "at once hissed off the stage" for his strange ideas. Galileo, too, had been hesitant in questioning the validity of astrology. More than once he denied that the new discoveries made through his telescope could disprove the existence of celestial influences on earth. Kepler, for his part, showed a even stronger interest in astrology. Apparently he remained interested in omens and nativities, and even practiced astrology to "earn my keep and retain my title and house." In 1602, he wrote that he did not reject astrology "entirely," and that the failures and complexity of this science only obliged one to "work harder."

23. Ibid., p. 137.
25. Ibid., pp. 233-34.
Considering the equivocal attitude of these great scientists toward astrology, the unthreatened initial response of English almanac-makers to their discoveries is hardly surprising. Most compilers were, after all, interested in astronomical study, which had always been an integral part of traditional astrology. Some, indeed, were established astronomers in their own right. They thus kept a close eye on the development of astronomical science on the European continent, and on every recent discovery and theory. As Bernard Capp observes, "many compilers showed a marked awareness of scientific advances and were active in reporting them." The result was that almanac-makers helped to promulgate the new knowledge in a popular and elementary form. In time, their reaction to unfolding conceptual changes had a significant impact on British society at large.

As early as 1576 Thomas Digges spoke out in defense of Copernicanism in his father's Prognostication. Several other prominent contemporary almanac-makers also endorsed the new theory. By the mid-seventeenth century many almanac-makers had accepted the revolutionary ideas of Copernicus. Some, like Lilly, remained "lukewarm" believers, but others, such as Nye, Wing and Warton, became staunch supporters. There were, of course, vocal critics of the heliocentric theory, but most of them turned toward the Tycho system instead of simply relying on the original Ptolemaic scheme.

By stages, almanac-makers began to identify themselves ever more fully with the new historical tide, confident that their own prognostic profession would prosper with it—or at least that their credibility would not be fundamentally threatened by new data and novel ideas. John Patridge once wrote that it was "not a rush matter which your principles are, whether geocentric, heliocentric or selenocentric." But as time went on, the

27. Ibid., p. 191.
29. Ibid., p. 192.
dichotomy between the new world-vision and the old cosmological outlook became more and more apparent. Many traditional magical and divinatory belief systems were discredited by the new scientific spirit. In the words of Keith Thomas: "The old dichotomy between things sublunar [terrestrial] and things celestial [superlunar], which had been the very foundation of astrological theory, . . . became increasingly untenable. Once abandoned, it became impossible to define the nature of that one-way astrological influence which the stars had been supposed to exert upon the earth."\textsuperscript{30}

Although the astrological profession continued to prosper during most of the seventeenth century in England, there was growing pressure for its justification and modification. As the Copernican Revolution gained momentum, the seventeenth century saw sustained efforts by many established almanac-makers to harmonize astrology and the new sciences. One common tendency was to distance star-gazing from magical practices such as witchcraft, and to purify and "rationalize" astrology itself. Judicial astrology in particular became a major target for reform. "Vulgar" divinations of lucky and unlucky days, traditionally carried in \textit{Erra Pater} and even more prestigious almanacs, increasingly came under scrutiny. Thomas Digges' \textit{Prognostication} continued to set the rules for these divinations, but, as he pointed out, these rules were based on the "ground I see not."\textsuperscript{31}

Some almanac-makers began to limit their "astrological" predictions to relatively minor matters, such as choosing appropriate days for blood-letting. Others openly questioned the validity of prophecies, elections, and horoscopic prognostications, denouncing these practices as groundless and faulty. Richard Allstree, for one, claimed that he had practiced traditional astrology for twenty years until God, "opening mine eyes" showed it to be full of "deceits, frauds and lies." He continued to provide details of elections in his almanacs, but disclaimed them to be

\textsuperscript{30} Thomas, p. 350.  
"foolish fables." Celestial influences, many people argued, were not "magical" but merely natural forces. One almanac-maker maintained, for example, that just as natural things such as food and poison could affect people, so could "natural" celestial bodies.\footnote{Ibid., pp. 182, 184.} The persistence of such opinions made natural astrology more difficult to eradicate than judicial astrology.

The effort by almanac-makers to improve and consolidate astrological theories by assimilating new scientific data, methods, and theories took several forms. Some attributed astral influences to the functioning of light, while others entertained the idea of "atomic" factors. Meanwhile, information concerning the relationship between the moon and the tides, and between the sun and the daily temperature, reaffirmed the belief that celestial bodies could indeed affect the air, the weather, and therefore the "humors." Several attempts were made to prove the actual effects of astrological influences by accumulating past data in a "scientific" manner. In the end, however, by participating in the spread of new knowledge, and by attempting to remodel astrology at the expense of its original integrity, almanac-makers were in fact unconsciously working towards astrology's destruction. By the early eighteenth century, astrology was no longer considered to be a serious and respectable science by the majority in educated circles. From this point onward, there were no more vigorous attempts by intellectuals to defend and improve astrology as a "science."

A few almanacs with astrological materials continued to be printed in eighteenth century England; but as the previous great compilers passed away, one after another, few almanac-makers of the younger generation took astrology seriously. Instead of reforming the art, their response was to purge it from their almanacs. People like Richard Saunders, who had been attacking astrology and its well-known practitioners (including Lilly, Gadbury and Patridge) since the late seventeenth century, inspired other critics. The Ladies' Diary, founded in 1704,
contained no judicial astrology, and informed its readers straightforwardly that "there's no such thing as foretelling
events."\textsuperscript{33} In place of explicitly astrological materials, compilers
added practical and up-to-date information, including social
advice.

It is true that many eighteenth century almanacs still
contained certain social and political prophecies, ostensibly based
on astrology. But these predictions were cursory and stereotyped-
designed more to be entertaining than to be informational or
instructional. For most readers, as Benard Capp believes, astrology
had become "fun" rather than significant, a reflection of the
general tendency of almanacs to acquire the characteristics of the
modern popular press.\textsuperscript{34} On the other hand, certain elements of
"natural astrology," such as those dealing with weather forecasts,
farming, and medicine, retained a certain degree of credibility.
After all, this form of astrological interpretation still provided
answers to questions in people's daily life that the new science
had yet to provide. In the medical field, for example, Newtonian
physics had limited value; thus the traditional "Four Humor"
school, with its astrological rules, still had some appeal.\textsuperscript{35} Modern
pathology and bacteriology did not emerge as established sciences
until the end of the nineteenth century. Furthermore, throughout
the eighteenth century, traditional-style weather forecasts, moon
phases, and zodiac signs remained standard features of English
almanacs. On the whole, however, traditional cosmology no longer
influenced the content of these publications.

III. American Almanacs and the "New Science"

In the 1700s, at a time when English almanacs were in
decline--dramatically stripped, it seemed, of their astrological
core--American almanacs were beginning to enjoy their own

\textsuperscript{33} Ibid., p. 239.
\textsuperscript{34} Ibid., pp. 258-59.
\textsuperscript{35} See Russell Nye, pp. 72-80.
golden era. As indicated in chapter 1, by this time the "academic" almanacs of the Harvard philomaths had given way to a more popular genre: the farmers' almanac. It was in this type of publication that astrology occupied a particularly prominent place. The commercial-minded compilers claimed that it was in response to the readers' demand that they included astrological materials in their works, which presumably was so. Thus, in "the shadow of the Enlightenment" (to borrow Leventhal's colorful phrase and book title), old-style prophesies and weather predictions, celestial prognostications and even Zodiac Man, came to be common ingredients in American farmers' almanacs of the eighteenth century.

This is not to say that Americans were untouched by the intellectual currents of contemporary Europe. Like their English counterparts, colonial almanac-makers had to confront the contradiction between the new scientific outlook and the old beliefs. Basically they faced the dilemma of wanting to please the populace and yet follow new intellectual trends. Although none sought to eliminate popular astrology from the pages of their almanacs entirely, only a few were dedicated believers. One of these was Dr. Ames, who, just before his death in 1764, still maintained that astrology had what he described as a genuine "philosophical foundation." According to him, celestial forces, which could "agitate and move the ocean," must also be able to cause changes in the human body and human mind, and hence affect human conduct. On the other hand, Dr. Ames engaged in teaching new scientific knowledge to his readers, seeing no incompatibility between old astrological assumptions and new ideas.36

Most American almanac-compilers were more skeptical about traditional divination methods and prophecies. In his 1725 almanac Titan Leeds acknowledged that moon eclipses might cause social unrest, but he also maintained that "the improvement of astronomy" had proved that eclipses were natural. The Poor

36. Stowell, p. 165.
Robin for 1742 described prognostications based on eclipses as simply "ridiculous." Yet the public continued to demand elements of the old cosmology. In explaining why he still printed the Zodiac Man in his almanac for 1770, one publisher remarked simply: "Should I omit to place this Figure here, My book would hardly sell another Year." As well-informed yet business-minded men, American almanac-makers found a satisfactory compromise: they provided common astrological contents in their publications on the one hand but greatly trivialized them on the other. They not only made clear that some astrological clichés were reluctantly included in their pages, but they also turned many of their weather predictions and prophesies into satirical or humorous notes, which thus became pieces of entertainment rather than true astrological prognostications. One almanac for 1779 informed its readers that in November, "him that then goes with his gloves in his pocket, the weather may invite to put them on, and him that is in bed with another man's wife, her husband may invite to come out." Thomas Moore's almanac for 1775 simply predicted for a certain day that "if it rains about this time it ain't my fault." Even Dr. Ames adopted humor in some of his predictions.

The mocking tone of these astrological and quasi-astrological predictions indicates a widely shared disbelief in, and even contempt for, astrology among American almanac-makers. Apparently their readers shared this view, although they enjoyed the material as entertainment, and perhaps continued to have some faith in the more serious prognostications provided. But as time went on, more and more almanacs dispensed with astrology altogether. A work edited by D. W. Fish for 1867 exemplifies the new style of American almanac. Designed primarily for school teachers, it contained predictions of eclipses and comets, but fell short of making astrological prophesies. It also recorded the

37. Ibid.
38. Leventhal, p. 36.
moon's phases and traditional zodiac positions without referring to their astrological implications. Further, it provided a table for weather predictions, which according to the author, was the result of "many year's actual observation." Another almanac, The Farmer's Northern Almanac for 1864, specially designed for farmers, reflected an even more radical departure from the traditional model. It abolished all materials relating to weather prediction, moon phases and the zodiac signs. Instead, it offered practical advice for farming and gardening, as well as advertisements of newly-patented agricultural machines. As in England, by the nineteenth century astrology had lost the day in almanacs.

In sum, as the Scientific Revolution gained momentum, first in England and then in America, astrology gradually lost its intellectual credibility. To a degree this development can be attributed not only to the discovery of new scientific "truths," but also to changing attitudes on the part of the Church--particularly the rise of "the notion of a Providence which itself obeyed natural laws accessible to human study." At about the same time, other changes undermined a belief in many of the traditional methods of prediction that were so important to old-style almanacs. New agricultural and medical technologies, for example, helped to control the environment, increasing productivity and life expectancy while lessening the incidence of misfortune. Life was thus more predictable in a certain sense. Furthermore, the development of methods of statistical probability in the seventeenth and eighteenth also helped make people aware of "patterns in apparently random behaviour." This, as Keith Thomas notes, made it possible to "supersede much previous speculation about the causes of good or bad fortune." 

Still, it is important to remember that even with the scientific and technological developments of the seventeenth and eighteenth century, the triumph of the new word-view was

41. See Ibid., pp. 641-63.
gradual. Commenting on this process Kuhn believes that much of it had much to do with people's "subconscious reluctance" to see the destruction of a cosmology that had for centuries been the basis of everyday practical and spiritual life. Graubard also uses the concept of "subconsciousness" in describing the unfolding of the West's profound cosmological revolution. As he points out, new ideas, like bacteria growing within "old tissues," often invisibly and sporadically transform the whole previous structure. Thus, the new historical tide sweeping over Western society from the late fifteenth century onward appeared calm; but it proved to be huge and overwhelmingly powerful. And, it would profoundly change not only the whole Western landscape, but the entire world.

42. Kuhn, p. 226.
43. Graubard, pp. 253-54.
CHAPTER 4

Assaults on the Traditional Cosmology: The Chinese Experience

I. Indigenous Attacks on Divination

As with pre-modern Western astrology, traditional Chinese astrology was inextricably bound up with the inherited cosmology. But whereas astrological calculations in the West depended primarily on visible operators such as stars and planets, Chinese "astrology" (and every other major type of Chinese divination) was based almost entirely on invisible operators—the forces of yin and yang, the eight trigrams, the heavenly stems and earthly branches, and so on. Even the "stars" of Chinese astrology were mainly "star-spirits," with no physical existence. This, together with the extraordinary complexity of traditional Chinese cosmology, made empirical testing and falsification by astronomy or other means especially difficult.¹

Nonetheless, astrology and other divinatory arts had their critics throughout Chinese history. One of the earliest was Mozi (Mo Di, c. 470-391 B. C.), who composed three essays entitled "Rejecting Fate" (feiming). In these writings he denounced fatalism as encouraging moral passivity and social irresponsibility. Mozi held that because there were too many "believers in fate," states tended to be governed by ineffectual rulers. As a consequence people suffered from poverty and lost their morale. In essence, Mozi's view was not too far removed from the Western argument that a belief in astrology denied the role of both God and free will in the determination of man's destiny. Nor were other criticisms offered by Chinese scholars significantly different from those offered by individuals hostile to astrology in the West (see chapter 1).

In China, however, the forces of institutional support for divination were far stronger than in the West, and its institutional enemies were far weaker. In fact, there was very little religious opposition to the mantic arts at all. Ideologically, both Buddhism and Religious Daoism emphasized the importance of thoughts and deeds as the determining factors in shaping one's future; but in actuality, clerics and lay worshippers often resorted to the mantic arts. So did Confucian scholars, whose belief in divination received validation both from the hallowed classic known as the Yijing or Book of Changes as well as from the official policies and practices of the government. In any case, institutional religion was extremely weak in traditional China—especially during late imperial times. The Confucian state, which invariably supported the orthodox cosmology because it legitimated the reigning emperor (see chapter 2), completely dominated the Buddhist and Religious Daoist establishment. There was no possibility of a conflict between church and state; from an institutional standpoint, the state remained all powerful.

Despite the Chinese government's unwavering support of correlative cosmology from the Han period onward, scholars did not necessarily agree with all of the principles and divinatory practices associated with it. One of the earliest and most famous critics of the system was Wang Chong (27-97), author of Lunheng (Discussions Weighed in the Balance). Contrary to a central principle of Han orthodoxy, Wang denied that human actions could influence Heaven. In his Lunheng, he argued that Heaven did not possess feelings or consciousness, and therefore it could neither answer prayers nor issue portents. He also criticized the practice of selecting lucky and unlucky days for certain activities, and pointed out the absurdity of certain widely held correlative assumptions related to the theory of the "five elements" (wuxing).2

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Yet even so radical a critic as Wang, who is usually regarded as an early "materialistic philosopher" by Chinese Marxist historians, believed in many of the basic principles of yin-yang/wuxing interaction, had faith in physiognomy, and felt that astral influences played an important role in human destiny.\(^3\) For all his alleged skepticism, Wang was actually a central figure in the history of Chinese divination.\(^4\) The same was true of another well-known scholar, Lü Cai (600-665), of the early Tang dynasty. Although an expert in geomancy and other forms of prognostic calculation, Lü assailed the prevailing practice of "fate extrapolation" (tuiming) based on the time of one's birth. In a fashion reminiscent of Western critiques of astrology in the seventeenth century, Lü wanted to know how it was, for example, that the 400,000 prisoners of war from the Zhao State, who represented all kinds of different birth dates and times, were buried alive simultaneously by a Qin general during the Changping Incident of 260 B. C.\(^5\)

The basic quarrel of these men was not with the premises of divination, but rather with specific misapplications of the mantic arts by "petty individuals" (xiaoren)--professional diviners in particular. By the Ming and Qing dynasties, such criticisms had become commonplace--in part because the practice of divination had become so widespread. From the fourteenth century onward divination penetrated deeply into people's social and private lives at all levels of society\(^6\). Taking the civil service examinations, conducting business, travelling, marrying, and making burial arrangements--all these activities and many others required advice from fortune-tellers. Qing vernacular novels such as Rulin waishi (Ai: Unofficial History of the Scholars) and Honglou meng (The Dream of Red Mansions) testify to the prevalence and influence of divination in Chinese life, as well as to the remarkable

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4. Hong, p. 11.
5. Ibid., p. 262.
6. Ibid., p. 235.
knowledge of the authors regarding fortune-telling concepts and techniques.\textsuperscript{7}

A story in \textit{Honglou meng} reveals both the widespread appeal of divination and careerist, far from the ideal Confucian model, careerist, far from the ideal Confucian model, one of the principal criticisms leveled against it. At one point in the novel, Jia Yucun, a poor but aspiring scholar on his way to the capital to take the imperial civil examinations, stays in the house of a gentry member. Offering him some money and some clothes, the kind host arranges a date for his departure, telling him that "the almanac gives the nineteenth day as a good day for travelling." But Jia departs earlier, without bidding farewell, leaving a message saying that "a scholar should not concern himself with almanacs but should act as the situation demands." Here, Jia Yucun's remark reflects the Confucian theme of intellectual and moral autonomy—a central concern in many Chinese discussions of divination.\textsuperscript{8}

Confucians invariably feared that over-reliance on "vulgar" systems of prognostication such as those contained in popular almanacs would blunt the impulse to self-improvement by encouraging a kind of blind fatalism. Echoing themes that can be found not only in Chinese Buddhist and Religious Daoist literature of the Qing period, but also in Western Christian literature of the same general era, Confucians argued that doing good deeds would ultimately bring about happy results whereas immoral words and deeds would surely lead to misfortune.\textsuperscript{9} Calamities and blessings (huofu) were nothing but ephemeral phenomena in the eyes of Confucian gentleman, who believed that history would finally reveal good and evil. Human beings were therefore bound to

\textsuperscript{7} Ibid., p. 242; also Smith (1991), p. 186.

\textsuperscript{8} Smith (1991), p. 89. Interestingly enough, Jia is virtually a villain in the novel, portrayed as a selfish, snobbish and pragmatic careerist, far from the ideal confucian model.

\textsuperscript{9} See Hong, p. 274.
strive relentlessly towards moral perfection and not simply "rest satisfied with fate" (anming).\textsuperscript{10}.

Of course there were always social and political issues at stake in divination. Like their predecessors for centuries, Qing elites accepted the notion of spiritually inspired foreknowledge set forth in the \textit{Yijing} and various other Confucian classics, but deplored the use of fortune-telling techniques by "lesser" individuals. China's Manchu rulers took the lead in perpetuating this cultural double standard, following a long-standing historical tradition. On the one hand, they employed fortune-tellers in every realm of official life, from the compilation of the state calendar and the determination of auspicious days for various special rituals and imperial celebrations, to the selection of proper geomantic sites for government buildings and imperial graves. On the other hand, they kept a close eye on all non-official divinatory activities, wary of any political threat or social disturbance they might provoke. In fact, the Qing legal code expressly forbade the unauthorized practice of astronomy or astrology, banned \textit{yinyang} fortune-tellers from entering officials' houses to deliver "false prophesies," and prohibited magicians, shamans, and the like from performing a variety of "heretical" (\textit{xie}) divination activities.\textsuperscript{11}

Apart from issues of moral autonomy, social bias, and practical political concerns, Qing scholars were critical of certain specific divination schemes. Like Lü Cai before them, a number questioned whether fate-extrapolation could yield a satisfactory discussion of human destiny. In the words of Quan Zuwang (1705-1755), "many people are born on the same day, yet some are fortunate and some are not; some will enjoy longevity and others will die young."\textsuperscript{12} During the Qing period, the most common method of individual "fate calculation," roughly analogous to Western astrology, centered on the so-called eight characters (\textit{bazi})--four sets of two characters each that represented the year,

\begin{itemize}
  \item \textsuperscript{10} Smith (1991), pp.72-73.
  \item \textsuperscript{11} Ibid.
  \item \textsuperscript{12} Ibid.
\end{itemize}
month, day and hour of a person's birth. This system was deeply rooted in all Qing almanacs and expressed in several different formats. It also found expression in the various forms of divination connected to Chinese life-cycle ritual—geomancy in particular. But in the eyes of many scholars, notably such influential individuals as Gu Yanwu (1613-1682) and Lu Shiyi (1611-1672), both the theory and the practice of "eight-character" calculations revealed serious flaws.\textsuperscript{13}

Facing such skepticism, divination masters countered in various ways. Some simply referred to the subtlety, depth, and complexity of the ways of Heaven, which made divinatory predictions hard to perfect. A Qing scholar by the name of Wu Zhichang cited several incidents which defied eight-character predictions, but he concluded by emphasizing the profundity of the fortune-telling art.\textsuperscript{14} As with Western astrologers, the limitations and imperfections of individual practitioners did not bring the whole profession to disgrace. Rather, exponents of the art were urged to seek a greater authority. For this reason Qing almanac-makers made a special point of claiming that they were the only reliable "selection masters," while accusing competitors of misleading people. The parallel with almanac-makers in seventeenth century England is striking.

Another approach of fortune-tellers was to offer specific explanations for what seemed to be contradictory situations. One Qing author, for example, recounted an anecdote concerning two babies with the same eight characters who actually led two drastically different lives. One baby was an official's son, delivered on a boat during a trip. The other was a local smith's son, born at the same time. Twenty years later, the former child emerged as a promising official while the latter followed his father's humble profession. After pondering the two sets of circumstances, the former boy's father, now a retired official, realized that in both cases the children's eight characters were

\textsuperscript{13} Ibid.
\textsuperscript{14} Ibid., p. 263.
dominated by the "element" fire, which needed the balance of water. His son, he then remembered, was born on the river, which solved the problem; but the smith's son, delivered near a furnace, was doomed to a less attractive fate.\textsuperscript{15} By demonstrating the way that various cosmic forces could operate to change a person's fate, the story-teller hoped to show the complexity of the fortune-telling process.

Still other fortune-tellers tried to forestall criticism by emphasizing the theme of moral responsibility. In an apparent compromise with Confucian, Buddhist, and Religious Daoist principles, Chen Suan, a Qing diviner, wrote that what was most important in order to guarantee a good fortune was to do "good deeds." Let every single thought be virtuous and every single deed be righteous, he maintained. One immoral thought could have the power to change the whole course of one's fate. "Those who are blindly confident in their good fate," he asserted, "and thus do not care to refrain from doing evil things, and those who blame everything on their poor fate and thus do not reconsider things, are the people with the least intelligence and no will-power." He went on to say that "all divining methods are secondary (\textit{mo}); the primary thing (\textit{ben}) is to accumulate good deeds."\textsuperscript{16}

II. The Question of "Cosmological Reformulation" in the Seventeenth Century

The debate between diviners and their critics briefly summarized above took place within a much broader framework of intellectual inquiry in Qing dynasty China. For a number of scholars, the question was not simply whether one or another divination technique was inaccurate; whether one or another practitioner was a fraud; or whether one or another moral principle was manifest. At issue was a far more fundamental

\textsuperscript{15} \textit{Ibid.}, p. 273.
\textsuperscript{16} \textit{Ibid.}, pp. 4-5.
question: Was the traditional cosmology that lay behind the various mantic practices itself fatally flawed.

Two related changes in the intellectual atmosphere of the early Qing era gave rise to the larger cosmological question. One was the emergence in the seventeenth century of an influential school of textual and exegetical study known generally as "empirical research" (kaozheng or kaoju). It centered on restoring the Confucian classics to their "original" meaning—that is, before the "corruption" of these texts by neo-Confucian scholars in the Song dynasty and thereafter. The other development was a revival of mathematical learning and its application to astronomical study. The former enabled Qing savants to discredit certain correlation theories on the grounds that they were in fact "unclassical." The latter, partly inspired by new knowledge introduced by the Jesuits (see next section), challenged the old numerological bases of calendar-making, and exposed much of the out-dated astronomical and geographical information that had been a part of the traditional cosmology.

The kaoju scholars brought formidable linguistic and philological skills to their task. Motivated by a passionate desire to "seek truth from facts" (shishi qiu shi), they critically evaluated a wide range of early classical texts, hoping to purge them of undesirable additions. Convinced that much of the allegedly ancient orthodox cosmology of the Qing dynasty dated only from the Song, they launched a sustained and wide-spread attack on various correlative systems, such as five-elements theory. Through careful textual study, prominent early Qing scholars like Huang Zongxi (1610-1695) and Wang Fuzhi (1619-1692) pointed out many unclassical origins of the established correlative patterns. A number of commonly accepted concepts, they argued, were not developed by the ancient sages but instead by later commentators such as the Han cosmologists and the neo-Confucians of the Song dynasty. These commentators, they maintained, had distorted the original meaning of the ancient sages' teachings.
In particular they faulted the numerological disarray of the inherited schemata. There were, the early Qing savants argued, too many "forced fits"—efforts to establish correlations between phenomena which distorted reality and proved incongruous with the new astronomical, meteorological and geographical knowledge these scholars had acquired. Since "the transformation of heaven and earth are subtle by dint of their irregularity and are balanced by dint of their irregularity," argued Wang Fuzhi, one could not "truncate a duck to augment a crane" for the sake of making a false fit. The cosmos did not submit, he felt, to simple and arbitrary rules. Wang ridiculed the arbitrary and awkward grouping of the five elements with the four seasons, while his intellectual ally, Huang Zongxi, opposed drawing correspondences between the "material force" (qi) of the five elements and heaven and earth, maintaining that "although wood, fire, metal, water, and earth are of five categories, they are of one qi; they are all heavenly. When they complete their forms and become the myriad things, they are all earthly."17 Even Yuan Mei (1716-1798), a free-spirited scholar unconcerned with the kaoju agenda, pointed out correctly (as we now know from research on oracle bones) that the heavenly stems and earthly branches were invented by the ancient sages only to record numbers. They were, asserted Yuan, nothing but one, two, three, and so on, and had no cosmic power whatsoever. Nor could they possibly link up with the five elements to influence someone’s fate.18

The many correlative systems built up around the symbols and numbers of the Yijing also came under assault in the early Qing. In part this was a continuation of the historical debate between two divergent approaches to Yijing study— one, a numerological interpretation; and the other, a moral-metaphysical understanding. Kaoju scholars such as Gu Yanwu carried on the tradition of the moral-metaphysical school; but, compared with their predecessors, they demonstrated a more conscious and

18. Hong, p. 262.
determined effort to repudiate Yijing-associated numerology. Gu argued that the Yijing-inspired numerological schemata devised by the Han cosmologists had little foundation in the authentic Confucian canon. Through painstaking textual analysis and investigation, Gu, Huang, Hu Wei (1633-1714) and others worked hard to trace the origins of various numerological patterns related to the classic and discredited many by proving their heterodox sources.

Qing commentators also demonstrated with forceful logic the lack of fit between the objective world and certain Yijing-related numerological schemata. Huang, for instance, showed the invalidity of the influential najia system, which correlated the eight trigrams of the Yijing with the phases of moon. Calendrical specialists, notably Wang Chanxi (1628-1682) and Mei Wending (1633-1721), joined the assault. Wang attributed the constant calendrical changes in Chinese history, as well as the relative backwardness of mathematical astronomy in China, to the tradition of calculating calendars on the basis of Yijing figures and harmonic intervals. Mei criticized the numerological features of the traditional calendrical system, and denounced the practice of day-selection in the Shixian li. Although he, like other Qing savants, unquestionably believed in certain types of "classically-inspired" divination, he argued that the inclusion of day-columns in the state calendar had the unfortunate effect of "blurring the distinction between these noble works and the base almanacs of the popular masses." 

Scientifically minded critics also raised doubts about systems of correspondence like the Yueling ("Monthly Ordinance"), which correlated various imperial activities with the months of the year, and fenye ("field allocation"), which in turn matched certain zones of the heavens (lunar lodges, or xiu) with certain regions of the Chinese empire. All such schemes, according to Wang Fuzhi, involved a basic disjunction between the cosmos as

perceived and interpreted by man, and the cosmos itself--or, to use Wang's words, between the "Heaven of Man" (ren zhi tian) and the "Heaven that is [actually] Heaven's" (tian zhi wei tian).\textsuperscript{21} John Henderson believes that these and other such criticisms amounted to a "cosmological reformation" that paralleled both chronologically and epistemologically the Copernican Revolution in seventeenth-century Europe.\textsuperscript{22} According to Henderson, the cumulative effect of kaoju scholarship was to end an epoch in the history of China, to mark the irreversible decline of traditional Chinese cosmology. But what was the real extent and impact of this "reformation"? Did it actually succeed in transforming or even effectively undermining the traditional cosmological views shared by both the scholar-elite and the general populace up to that time?

Certainly the cosmological criticism in seventeenth-century China was unprecedented in its extent. At no previous time in imperial history did so many influential scholars attack the inherited cosmology with such vigor and effectiveness. Nevertheless, Henderson may have exaggerated the historical significance of these early Qing criticisms. In the first place, the fundamental principles of Confucian metaphysics, including the idea of a "spiritual resonance" (ganying) between Heaven and Man, were rarely questioned. And, as even Henderson admits, kaoju critiques "remained focused narrowly on the faults of one or another schema, rather than on the inherited cosmology as a whole." No prominent Confucian scholar during this period (or any other) denied in principle that a spiritual link existed between Man and the cosmos, and none proved willing to abandon correlative thinking altogether. Scholars such as Wang Fuzhi rejected certain schemata associated with Yijing, but they did not question the value of the classic as a device for fathoming basic patterns of cosmic change--including those of the future.\textsuperscript{23}

\textsuperscript{21} See Henderson, pp. 179-95, esp. p. 179.
\textsuperscript{22} Ibid., p. xv; p. 173.
It is also important to remember that the people defending and perpetuating the established cosmological concepts greatly outnumbered the critics of these concepts at all levels of Chinese society. 24 Henderson himself indicates, for example, that "there is little evidence that cosmological criticisms articulated by major scholars of this era were widely disseminated among the people." 25 Furthermore, and significantly, the Manchu authorities defended the inherited cosmology with a vengeance. Although they readily allowed certain scholastic conclusions of the early Qing kaoju scholars to be included in the official reviews of books printed in the massive imperial collection known as the Siku quanshu (Complete Collection of the Four Treasuries; 1785), other imperially-sponsored works such as the Xingli kaoyuan (An Investigation into the Origins of Astrological Calendars) and the Xieji bianfang shu (Book on Harmonizing the Seasons and Distinguishing the Directions) upheld virtually all the orthodox cosmology, including various yin-yang and five element correlations and Yijing-inspired numerological schemata.

The throne's defense of the traditional cosmology was not only a matter of reverence for the past and the reflection of a certain intellectual inertia; it was also a matter of political self-interest; The idea of the Mandate of Heaven—which justified the Manchu conquest, was, if nothing else, cosmologically-grounded. The political dimension of the early Qing cosmological question can clearly be seen in China's response to the introduction of new Western calendrical knowledge by the Jesuits.

III. The Challenge of External Ideas

On July 29, 1644, a petition caught the attention of the Manchu rulers, who had just entered Beijing and founded the Qing dynasty. Addressed to the new emperor, the petition stated: "Your subject presents to Your Majesty predictions concerning an eclipse

24. Ibid.
of the sun that will occur on September 1, 1664, calculated according to the Western method, together with illustrations of the percentage of the solar eclipse and the sun's reappearance as it may be seen in the Imperial Capital and in various provinces." The petitioner asked for a public test to be arranged, so that he would be able to demonstrate the superiority of his predictions by comparison to those of the throne's Chinese and Muslim official astronomers. This bold petitioner, the self-proclaimed loyal "subject," was Adam Schall von Bell (1591-1666), a Jesuit missionary from Europe.26

On September 1, Schall and the imperial astronomers held a technical competition under the supervision of top Qing officials. The result turned out to be a total triumph for the Jesuit brother. In recognition of his demonstrated expertise, the Manchu authorities appointed Schall to be Director of the Imperial Board of Astronomy (Qintianjian jianzheng) with fifth degree civil rank, and gave him full responsibility for calendar-making and astronomical predictions. This dramatic event highlighted an intellectual challenge that had faced China since the arrival in Beijing of the Italian Jesuit Matteo Ricci (1552-1610) at the beginning of the seventeenth century. The challenge was the new Western science, especially in the fields of astronomy and mathematics.

When the Jesuits sailed eastward in waves to China from Europe, the antenna of a new science touched the "Middle Kingdom." Along with their Bibles, these Christian missionaries brought recent books on astronomy and mathematics, and even a new invention: the telescope. After thousands of years of mutual isolation, the two civilizations had finally begun to converge; but now one of them was already rapidly breaking away from its old traditions and heading toward a new cultural course. It is true that in certain ways the Jesuits themselves were a bit behind the times—not least because of Rome's initial and vehement condemnation of Copernicanism. Nonetheless, many of the

26. Spence, p. 3.
religious and scientific ideas they brought to China were quite new by traditional standards, and represented a revolutionary threat in the minds of some. How, then, did the Qing dynasty respond to these ideas?

Initially, Western astronomical science met a warm reception in China. At the outset of Manchu rule, the new dynasty formally adopted "Western methods" (xifa) in the making of one of its official calendars, known as the Qizheng li (Calendar of the Seven Regulators). Stimulated by access to Western learning, some Chinese scholars such as Mei Wending and Wang Chanxi "rediscovered" the mathematical traditions of ancient China, which led to a revival of Chinese mathematics and the use of mathematics in solving astronomical problems. Nathan Sivin remarks that these changes "amounted to a conceptual revolution in [Chinese] astronomy."27 Works on the calendar, astronomy and mathematics were soon compiled under royal auspices, assimilating new knowledge introduced by the Jesuits.28 Influenced by his contact with intelligent and articulate Christian missionaries, the Kangxi emperor acquired a strong personal interest in Western learning. In 1715 he helped edit a letter to the Pope written by two missionaries, asking Rome to send more experts in astronomy, mathematics, and other fields to China.29

But the use of Westerners in Chinese calendrical affairs involved more than astronomy and mathematics; it also involved divination. As members of the Imperial Board of Astronomy, Jesuit missionaries found themselves caught between the pursuit of science on the one hand and their involvement with what they considered to be pagan "superstition" on the other. In addition to predicting eclipses and other celestial events, Schall and his colleagues were responsible for the day-selection columns of the state calendar, as well as for choosing proper times for special imperial rituals connected with activities such as burials and

construction. One Dominican living in Beijing sarcastically described Schall's official duty as to "choose lucky and unlucky days and hours for everything except eating, drinking, and sinning." Although Schall did much more than this, there was some truth to the charge.

Uncomfortable with his role as an imperial diviner, Schall, like his predecessor, Matteo Ricci, attempted to eliminate the old-style day-selection tables from the official calendar. In an early memorial to the throne, he began by acknowledging that "the value of the calendar lies in its conformity with the patterns of Heaven above and its correspondence to human affairs below." He then went on to say that the so-called Seven Regulators (Qizheng: the Sun, the Moon, and the Five Planets) were related to agriculture, military affairs, medicine and commercial activities. To improve the accuracy of calendrical predictions, he proposed to use a "new method," taken from the "applied Western astronomy" (i.e. natural astrology) to reform the calendar's day-selection notes. "This," Schall claimed "would greatly benefit the nation's economy and the people's livelihood." Although the emperor agreed in principle, Schall's calendrical reform was never actually implemented.

Schall's successor, Ferdinand Verbiest (1623-1688), tried to take a firmer stand against Chinese divination, arguing that his main strength was in predicting celestial movements, not in forecasting lucky and unlucky days. As far as prognostication went, he once told the emperor, all he knew was how to choose the proper time for medical treatment, bathing, and planting.

31. See also Huang (1991b), Huang (1990c), Huang (1990a), and Rowbothan on Schall and his successors' use of Chinese astrology and othertraditional beliefs for their own political and sectarian purposes.
33. Ibid.
34. Ibid.
In fact, Verbiest went so far as to publish three essays attacking the practice of day-selection. In these works he not only pointed out its absurdity (in the general fashion of Mei Wending), but he also accused the traditional selection masters in the Board of Astronomy of being ignorant in real astronomy. His criticisms, like those of contemporary Chinese cosmological critics, produced no lasting changes. Nor did Schall's effort to modify day-selection practices in popular almanacs. Although he once advocated that the special, Western-influenced Qi zheng li be published nationwide in order rectify the content of tongshu, the Kangxi emperor dismissed his proposal on the fascinating grounds that even if the Qi zheng li were widely distributed, local almanac makers would not use it.\textsuperscript{35}

In 1677 Verbiest was reprimanded by the throne for the Board of Astronomy's negligence in reporting abnormal celestial phenomena. The Kangxi emperor stated that since it was the sovereign's sacred duty to notice warnings from Heaven, and because heavenly signs were all related to the governance of the country, all auspicious and inauspicious phenomena must be duly reported. In order to avoid punishment, Verbiest had to resume the traditional role of reporting, in classical Chinese terminology, all eclipses, meteors, comets, and any strange celestial conjunctions. Even in matters that had to do solely with empirical observation, Verbiest found that his influence was limited if the information posed a threat to the inherited cosmology. For instance, on the basis of early astronomical investigations in China, the Jesuits knew that the traditional position of two neighboring constellations was wrong and that they should actually be reversed. This would have disrupted a whole network of time-honored correspondences, including those of the fen ye system. At the height of their power, both Schall and Verbiest were able to correct the error, at least temporarily, in the restricted Qi zheng li; but when their power waned, the old system reasserted itself. This was particularly the case during the eighteenth century.

\textsuperscript{35} Ibid.
when papal intervention related to the so-called "Rites Controversy" led to a disastrous decline in Jesuit influence.\footnote{Huang (1991a). Also see Rowbothan for a narrative account of the "Rites Controversy," which involved the Jesuits, their rival missionaries, Rome, European theologians, and Kangxi emperor.} Through it all, Chinese almanacs-makers produced tongshu in the traditional fashion, oblivious to the politics of either cosmological criticism or calendrical reform.

Ironically, neither the Jesuits nor the Qing government viewed China's adoption of Western science as an end in itself. The former used their advanced knowledge as a stepping stone to get closer to the top echelon of Chinese society and to build the way for their soul-saving mission in China. In this goal they failed. The Chinese authorities, for their part, were willing to use the scientific expertise of the Jesuits, but not for change-religious or otherwise. From a Chinese standpoint, the goal of using Western knowledge was ultimately to consolidate the established institutions and values. The Manchu rulers needed a good calendar to legitimize their conquest and to demonstrate that they indeed possessed the Mandate of Heaven. The more accurate the throne's celestial predictions, the more in tune the emperor was with the rhythms of the cosmos--and the more prepared he and his agents were to "choose the proper time." Some local almanacs-makers said as much, praising the dynasty's unparalleled achievements in calendrical reform.\footnote{Jincheng tang Hong Chaohe shou nan Bincheng tongshu, 1815.}

In the end, neither indigenous cosmological critiques nor the new science of the Jesuits could overturn the traditional Chinese world view. In Nathan Sivin's words, the "conceptual revolution in astronomy" that took place in seventeenth century China failed to "generate the same pitch of tension as the one going on in Europe at the same time." It did not "burst forth in a fundamental reorientation of thought about Nature," nor did it "cast doubt on all the traditional ideas of what constitutes an astronomical
problem and what significance astronomical prediction can have for the ultimate understanding of Nature and of man's relation to it.\textsuperscript{38} China remained in an institutional and even intellectual equilibrium, thanks to the enormous power of the Chinese state and the limited horizons of its cosmological critics. If the ultimate goal of the Jesuits was to save souls, the ultimate goal of kaoju scholars was to preserve the moral and metaphysical truths of the ancient Confucian classics. And even the revival of mathematical and astronomical learning in seventeenth-century China--partly inspired and partly in reaction to the new Western knowledge introduced by the Jesuits--had serious weaknesses, for many of the scholars involved claimed that Western learning actually originated in China. By asserting the superiority and integrity of Chinese tradition, and encouraging later scholars to turn their attention towards ancient mathematics, they actually blocked the spread of new ideas flowing from the West.\textsuperscript{39}

\textsuperscript{38} Sivin, p. 102.
CHAPTER 5

Patterns of Change in Chinese Almanacs

I. The Late Qing Period, 1840-1911

"Hundreds of years from now," the Kangxi emperor once warned his princes and ministers, "the oversea nations such as those in the West will surely become trouble for China." Less than two centuries later, Western soldiers would torch the grandiose Summer Palace in Beijing, which the Jesuits had helped to build. In this second encounter between the two civilizations, China could no longer, as it had always done before, subject the intruders to its own cultural norms. Although for a long time the Manchu authorities and Chinese literati were still inclined to regard the Europeans as nothing more than troublesome "barbarians" (yi), the new ideas of the intruders, backed by overwhelming material force, eventually caused at least some Chinese to reconsider their position.

Before the first Anglo-Chinese Opium War (1839-42), few Chinese, including learned scholars, knew or cared to know anything about the West. This confrontation, however, caused certain scholar-officials, such as Lin Zexu (1785-1850) and Wei Yuan (1794-1857), to begin learning something about these distant countries—their geographical location, history, military strength, and mutual relations. They also acquired a consciousness of the superiority of Western firepower. In the 1840's, Wei Yuan advocated "learning the superior skills of the barbarians to subdue the barbarians." Other Chinese scholar-officials learned that "the superior skills of the barbarians" could also be used to suppress the domestic rebellions of the mid-nineteenth century. The Self-strengthening Movement that began in the 1860's saw a sustained effort to purchase and make foreign-style weapons,

ships, and machinery. Most common people, however, had no interest in the West—as long as they could simply be left alone.

Western imperialism would not leave China alone, however. In the nearly twenty years from the conclusion of the first Opium War in 1842 to the signing of the Beijing Conventions in 1860, the notorious unequal treaty system took shape. Held in place by the threat of further military action, the treaties created a solid structure of Western influence, both positive and negative. Initially five treaty ports were opened to foreign residence and trade; by the end of the nineteenth century there were about two dozen such places. Protected by extraterritoriality, Western missionaries, merchants, diplomats, military men and free-booting adventurers operated at will. Although they had a disruptive effect on the Chinese society and economy, they also brought to China new ideas, products, practices and skills. As enclaves of foreign privilege, treaty ports were reminders of foreign imperialism as well as showcases for the technological achievements of the West.

In the initial stages of this new era of Sino-Western interaction, Chinese almanac-makers remained, like most other Chinese of the time, profoundly apolitical. Foreign knowledge had no public appeal, and therefore it found no place in Chinese tongshu. We can see, however, a slightly broadened world vision in at least a few almanacs printed in treaty port areas. In one, for the year 1849—a decade after the outbreak of the Opium War—we find a crudely printed map based largely on the old cosmography. Above the square terrestrial map there is a round chart of celestial bodies. This idea of a round Heaven covering a square earth is a standard feature of traditional Chinese cosmological symbolism. On the earthly map, China is placed at the center and occupies most of the space. Surrounding the empire are oceans and numerous barbarian tribes and tributary states, scattered at the edges and corners. Significantly, however, in the upper left-hand corner, the northwest, the words "thirty-odd states of Europe" appear. They lie to the west of the "Far Western
Region" (xiyu), the "Western Muslim Barbarians," and the Kunlun Mountains.  

Although far from precise, and less than cosmopolitan, this map was already more advanced than most Chinese maps of the time. The vast majority of Chinese cartographers located the European nations on the southeastern edge of China, and identified them with vague and derogatory names like the "Red Barbarians" (Hongyi). Even much later, the readers of most Chinese almanacs had no apparent desire to know about the West. It is true that in 1876 a Foshan publisher claimed that his almanac, the Liwen tang xin tongshu (New Almanac of Liwen Hall) contained some "wonderful [divinatory or calendrical] techniques from the West" (xiyang-miaofa). But this announcement was most unusual for its time, and virtually the only indication of the penetration of Western ideas in traditional Chinese tongshu for the next two decades. Meanwhile, thirty-five years after the conclusion of the Opium War, this Foshan almanac printed a crude and grossly inaccurate map which made no pretense of covering the whole world. On the northeastern corner, outside the Great Wall, the compiler printed a note saying only that "further to the northeast is a wide range of mountains extending to the ocean that cannot be fully recorded." Europe and the "Greater Western Ocean" (Da xiyang, the Atlantic) were nowhere to be seen.

Occasionally during the nineteenth century, Western missionaries and their converts tried to compile almanacs with a Christian character and at least a degree of Western information. One of the earliest extant examples is a Hua Fan hehe tongshu (Sino-foreign Concordant Almanac) for the "Twenty-seventh Year of the Daoguang emperor or the 1847th year of Jesus Christ." On the front cover, as an indication of the almanac's explicitly religious content and inspiration, the compiler printed a statement that it was the Supreme Heavenly God (shentian shangdi) who had

2. Jicheng tang Hong Chaohé shou nan Binhuai sun Zhengti tongshu, 1849.
3. Linwen tang xin tongshu, 1876.
created the sun, the moon, the day, the night, and the stars. But such works, like those of the Christian-inspired Taiping rebels in the 1850s, had no impact on the content of traditional Chinese almanacs, and seem to have had an extremely limited readership.4

The growth of foreign imperialism in the last two decades of the nineteenth century fundamentally altered China's awareness of the rest of the world. But it took almanac-makers a surprisingly long time to register the change in their publications. As the treaty port system expanded internally, China faced the rising tide of foreign aggression externally, from all sides. In 1880 China nearly went to war with Russia over disputed territory in Central Asia, paying an indemnity for the privilege of losing some of its long-claimed land. The short Sino-French War in 1885 ended China's long-standing tributary relationship with Annam (Vietnam). And a decade later, the Japanese crushed China in the Sino-Japanese War of 1894-1895. This last event was a terrible blow to Chinese pride, and almost instantly produced a surge of Chinese nationalism. China could no longer maintain its self image as the Middle Kingdom.

The shock of the war stimulated many intellectuals to look more closely at the achievements of the Western powers, not to mention their able student of imperialism, Japan. The abortive "One Hundred Days of Reform" in 1898 exemplified the attempt by a few enlightened Confucian scholars to revitalize China by assimilating certain elements from Western political and educational systems into Chinese society. In the early 1900s, more intellectuals, including those trained in Japan and the West, began to call for radical political and economic changes. Although until the very end of the Qing dynasty the majority of Chinese literati still had faith in the superiority of Chinese cultural traditions, ever greater numbers were acquiring the sense of an enlarged world, of the challenge presented by "Western learning," and of the threat posed by Western imperialism.

I have found no evidence to suggest that almanac-makers participated in these unprecedented events—not as advocates for intellectual change at least. However, their annual publications do reflect, in their own way, the changes that were occurring in this tradition-dominated society. Towards the end of the nineteenth century, as modern geographical knowledge penetrated deeper into the society through translations of Western works and the new Chinese periodical press, maps in almanacs became much more accurate. Many maps of China published at the turn of century were intended to show the railways that were newly built in China. In the Shanghai-based Guanshang kuailan (A Quick Reference for Officials and Merchants) for 1908, the compiler printed a map illustrating the electric lines in the country. On the opposite page, there was a table of the "famous mountains and rivers of the the world," listing their height or length, as well as the country and the continent where they were located. By this time, Chinese sinocentrism has largely been abandoned. The compiler's map of China, like that of many other of his contemporaries, even omitted regions like Mongolia, Tibet and Xinjiang, which were still theoretically under the empire's suzerainty. On the other hand, both Korea and Taiwan, lost to Japan in 1895, always remained parts of this incomplete map of China carried by many tongshu. Perhaps it was a subtle reminder to readers of the loss; but the compiler of the 1908 Guanshang kuailan refers to Taiwan as "Taiwan, Japan" in the table mentioned above.

Almanac-makers were well-aware of the social and economic changes brought about by Sino-Western contact, and they were quick to amplify their materials in order to better serve the needs of their readers and to satisfy their curiosity. The printer of the Guanshang bianlan (A Handy Reference for Officials and Merchants) published in Shanghai for 1905 observed, "recently the general mood [fengqii] of the country has become more liberal. Day by day the Chinese and Westerners are getting more and more intimate." Thus, to serve the needs of both officials and merchants, whose business involved "foreign affairs"
(yangwu), the publisher, like many of his contemporaries, provided new information concerning "Western methods" (xifa)--information on railways, shipping lines, and telegraph and postal services. Many tongshu compilers also provided comparisons of Chinese and Western weights and measures. Although the presence of the foreign concessions in China's treaty ports was a humiliation to the Manchu authorities and an irritant to Chinese patriots, almanac-makers saw the situation in purely practical terms. To help the visiting businessmen, the printer of the Guanshang bianlan mentioned above maintained: "we have carefully collected all the old and new regulations set by the concession authorities," so that visitors can be well-informed and thus avoid "unintentionally making mistakes."

Guanshang bianlan and Guanshang Kuailan of the early 1900s often included Western calendrical equivalents and religious worship dates to assist people who dealt with foreigners. The 1904 Guanshang kuailan devoted a section to introducing the history of Western calendars, and also provided a column of sunrise times for different countries. Another column listed different countries' prevalent religions, as well as a brief introduction to the "founding sages of various religions" (kaijiao zhusheng), including Moses, Jesus, Sakyamuni, Confucius and Mohammed. Foreign flags and portraits of foreign heads of state also became a standard feature of late Qing almanacs. In the 1905 Guanshang bianlan, among the portraits of foreign leaders were the Japanese emperor, Prince Edward of England, Russia's Czar Nicholas II, and President Theodore Roosevelt of the United States. A capsule biographical note was attached to each portrait. On the pages proceeding this section were the pictures of the reigning Manchu emperor, Manchu princes, and certain top Chinese generals such as Yuan Shikai and Duan Qirui. The world as depicted in late Qing almanacs, was now no longer a closed Middle Kingdom with some unimportant barbarian states dwelling at the distant edges.

For much of the nineteenth century, the guiding principle of reform was "Chinese learning for the fundamental principles [tjl],
Western learning for the practical application [yong]." Debate centered on what kind and how much of the "Western learning" yong should be incorporated into the Chinese ti. Tongshu-makers were a prime example of tiyong practitioners. Excluded from the higher intellectual circles, they created their own balance of ti and yong. One 1905 almanac noted, "recently it has become the general mood in China to follow Western fashions in matters such as family life, health-care, medicine, pharmacy and food. In view of this trend we have chosen from the miscellaneous Western ways all those that are beneficial to the Chinese. As to those which do not fit the Chinese, one should not rashly try them and we dare not publish them either."5

As new ideas flowed in from the West, almanac makers did not hesitate to choose those that would enrich their materials and enhance their appeal. Some even looked to the West for mantic inspiration. A Tianjin printer of a Guanshang kuailan for 1903 devoted a full page to propounding two new ways of reading fate by palmistry and phrenology, which he claimed had originated in the West (Taixi). But in spite of these drops of new wine that the almanac-makers squeezed into their old bottles, much of the taste remained unchanged. Unlike English almanac-makers of the late seventeenth century, no tongshu compiler felt the need to defend his profession against attack, or to attempt to synthesize modern science with the ancient mantic arts. Their devotion to old beliefs and customs was not merely emotionally motivated. Many Chinese did not see any inconsistency between China's new realities and the old world view, and naturally felt no need to carry out any fundamental intellectual changes.

During the last decade of the Qing dynasty the comological elements of both almanacs and calendars remained completely intact. Judging solely from the "day charts" and other such materials in these publications, the decline of Chinese cosmology described by Henderson is hard to detect. But appearances can be deceptive, for although most of the elements of the orthodox

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5. Guanshang bianlan, 1905.
cosmology remained deeply imbedded in the popular consciousness, radical Chinese intellectuals had begun to attack the idea of cosmological kingship—the ancient notion that the emperor was the "Son of Heaven," charged with maintaining cosmic harmony. They did so primarily because the throne was so closely tied with the hated Manchus and their conservative policies. In nationalistic eyes, this ancient concept only propped up a foreign dynasty too corrupt and too self interested to change. From a political standpoint, the preservation of this aspect of the cosmology made it impossible to replace monarchical rule with a republican form of government.

II. Republican Era Almanacs, 1912-1949

The imperial Shixian shu for the "Fourth Year of the Xuantong Reign" was promulgated with its usual fanfare in the latter part of 1911. But the year it was supposed to guide did not exist in history. Following the successful Wuchang Uprising of October 10, 1911 and the eventual abdication of the last Qing emperor several months later, this year became officially 1912 or the "First Year of the Republic." Republican revolution had toppled the monarchy. The interim government of the Republic of China chose January, 1, 1912 to pronounce its formal establishment, and declared that the Gregorian calendar was now the national calendar. The Central Observatory of the new Ministry of Education, under the leadership of the liberal scholar Cai Yuanpei (1868-1940), issued a new state calendar which abolished the traditional lunar calendar and its age-old day-selection principles. State-sponsored divination became a thing of the past.

The early Republican era was a time of political fragmentation and social unrest. As it turned out, the new democratic institutions of the Republic were too weak to hold the center, while the concept of the monarchy was too thoroughly descredited to restore. The "father" of the new Republic, Sun Yat-sen, lacked the military power to maintain effective control, and
the overall result was warlordism. It lasted from about 1916 to 1927, and brought devastation and demoralization to much of China. It was also, however, a time when people with new ideas—often educated in the West or Japan—rose to positions of predominance on the intellectual scene. During the so-called New Culture Movement (1915-1927) which called for "Mr. Democracy" and "Mr. Science" to rule the society, students and intellectuals became increasingly strident in their denunciation of traditional values and practices. In China's new schools, modelled on the West, traditional cosmology had no place in the curriculum.

As the traditional cosmology rapidly lost its social and intellectual prestige, divination practices, now labelled as "superstition" (minxin) fell under sharp attack. Looking back with regret on the situation, one almanac-maker in Taiwan recently remarked that it was a time when some "new fashioned intellectuals" took it upon themselves to shake the very cultural foundations of the Chinese nation. Under the pretext of championing "science" and "progress," they dragged down the various divination professions from their previous "very high position."6 Despised by the New Culture generation of young intellectuals, and cut off from the new government's sponsorship, post-Qing almanac-makers nevertheless demonstrated that the old cosmology had remarkable staying power at the lower levels of Chinese society. Large quantities of traditional-style almanacs continued to circulate in many parts of China, and all contained the same basic cosmological and cultural ingredients of their Qing dynasty predecessors, including day-selection charts and fortune-telling materials.

Deliberately defying prevailing intellectual currents, they emphasized their conformity to the authentic rules set down in the previous dynasty by Qing tongshu masters such as the famous Hong Chaohe of Fujian province. Rather than dispensing with divinatory materials in the fashion of English almanac-makers in the eighteenth century, Republican-era almanac-makers added

new divination materials into their works. One was a prophetic text entitled "Liu Bowen's Cake Song," which predicted (in fact, retrospectively) the rise and fall of the Ming and Qing dynasties with riddle-laden lines. The prediction of the post-Qing future was brief and vague. Another new divinatory section, "The Secret Format of Zhuge's Magic Numbers," allegedly formulated by Zhuge Liang (181-234), consisted of a series of prognostication poems for personal use. These two items later became standard features of modern-day Hong Kong almanacs.

The persistence of these traditional elements does not mean, however, that post-Qing tongshu-makers turned a blind eye to the changing social environment. Practical information, including material relating to "foreign affairs" continued to be provided; and some Cantonese compilers also printed pronunciation instructions for basic English words, supplying Chinese characters to be read in Cantonese for guidance. These elements, too, became standard fare in later-day Hong Kong almanacs. Furthermore, almanacs of the early Republican period depicted proper rituals for new-style marriage ceremonies, now termed "enlightened" or "civilized" (wenming). Thus readers could know the appropriate contemporary forms and yet still consult the traditional divination charts for information on horoscopic compatibility.

Although the officially mandated change of the calendrical system to a Gregorian model complicated the problem of designating days in traditional-style almanacs, it was easily solved by supplying both lunar and solar terms for each day column. No confusion arose, and everyone's interests were satisfied. According to Liao Shihao, a present-day Taiwan almanac-compiler, the "common masses" (lao baixing) at the time cared little about the scholarly debate over which calendar was better than the other. They continued to carry a copy of almanac and followed the old days and months. Only when they had to deal with government agencies would they convert the lunar dates into the Gregorian system.7

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7. Ibid., p. 58.
Like their predecessors for hundreds of years, almanac-compilers of the Republican era were sensitive to Chinese political realities. In spite of their avowed allegiance to Qing divination principles, they did not hesitate to adopt the new regime's title: Republic of China. At the same time, however, in the politically insecure environment of the warlord era, it was dangerous to specify allegiances too carefully. Chinese almanac-makers did not place themselves and their reputations in jeopardy by making political predictions in the fashion of their English counterparts during the Great Rebellion. Rather, they printed, with due respect, numerous portraits of the prominent military and political figures of the period, designating them all as "the Great Men of the Republic." Some, like President Yuan Shikai and General Duan Qirui had appeared in the previous Qing almanacs but they now had their costumes and titles changed. In real life, a number of these "great men" actually plotted and waged war against each other.

Many almanacs of the early Republican period reflect the powerful surge of Chinese nationalism evident at the time. The Xin lishu (New Almanac) printed in Canton for 1921 included an ingenious "Three-character Scripture of the Republic," modeled on the famous "Three-character Scripture" used to teach rudimentary Confucian ethics to children in the Qing period. The traditional version began: "At their beginning, men [ren] are naturally good. Their natures are much the same, but their habits are quite different." The new version, highly politicized, began: "At their beginning, the people [min] are naturally good. The Chinese [Han] are much the same, but the Manchus [Man] are quite different." The new scripture then recounted in similar three-character phrases and accompanying illustrations the modern history of China, celebrating the themes of nationalism and Republican revolution.

In this work, the author provides an impressive array of heros and villains from Chinese history. The heros are, of course, those who defeated or resisted non-Han barbarians; the villains are naturally non-Chinese and their Chinese lackeys. Modern
examples of the former include figures such as Sun Yat-sen and Taiping rebel leader Hong Xiuquan; instances of the latter include Qing officials Zeng Guofan and Li Hongzhang, who had helped the Manchus to put down the Taiping Rebellion. The almost three hundred years of Manchu rule are described as a period of foreign occupation and the author calls for the Han people to reunite and drive away the Manchus. Foreign heroes from Korean and Annamese patriots to Napoleon and Washington in the West are invoked to boost Chinese nationalism. Such a piece of writing, heavily imbued with rare political content, reflected a growing political consciousness and political participation among the lower classes of the Chinese people. However, the new "three-character scripture" was expressing nothing but safe and orthodox views, after all, the Manchus had already been overthrown.

Nationalistic sentiment also appeared in the form of commercial advertisements, another innovation in almanac-making during the Republican era. One 1925 almanac contained, for example, a large illustration promoting a cigarette with the brand name "Patriot." This cigarette, the advertiser suggested, should be "chosen by all patriotic people." But Chinese nationalism did not mean blind rejection of everything foreign. Among other advertisements in almanacs of the period, we find a catalogue of many new Western-influenced books (many of which were translations), ranging from the social sciences and world history to physiology textbooks exploring the secrets of sex.

When the Nationalists (Kuomintang) under Chiang Kai-shek finally reunified China in 1927, almanac-makers quickly moved to show their allegiance to the new government. In his almanac for 1929, a Shanghai printer included a couplet on his front cover decorated with auspicious designs. It read: Unity to China; Long live the Republic. Even the traditional coin-tossing divination section in the book used the author's self-designed Nationalist coin

8. Linshu ge xinyou sui xin lishu, 1921.
with two Nationalist flags on it. In 1930, most almanac-makers printed Sun Yat-sen’s portrait under a cross of the Nationalist party and state flags on the front covers. Many also printed the full text of Sun Yat-sen's Will, calling for further revolution based on the "Three People's principles."

Such eager demonstrations of loyalty were motivated in part by a desire on the part of the selection masters to save their age-old mantic arts and profession, for the new authorities had shown a far greater interest in the elimination of "superstitions" than the previous Beijing regimes. Between 1928 and 1930, the Nanjing government passed a series of laws abolishing "old-style" almanacs and suppressing many traditional divination occupations such as geomancy and astrology. The new government even went to the extreme of denouncing traditional Chinese medicine on the grounds that it was "unscientific." In February of 1929, the authorities outlawed the practice of traditional medicine and banned all the schools training traditional medical practitioners. Nationwide petitions revoked the law about a month later, but the episode epitomized the new leadership's enthusiasm to cultivate scientific values and eliminate all "old superstitions."

Diviners did not put up an active resistance as the doctors had done; but by demonstrating their loyalty and submissiveness to the new regime they proved equally successful in maintaining themselves. The compiler of one almanac for 1930, who, like many of his contemporaries, renamed his work the Gouminli tongshu (Almanac with Nationalist Calendar) printed a note explaining his attitudes towards the government's reform efforts. The compiler wrote, in an apparently honest and humble tone, that he had studied the government's decrees and understood its noble and benevolent intent. Following the regime's guidelines, he had decided to delete some conventional materials like the "spring ox" chart. Most major divination and selection materials, however,

were retained so as to help the people, which, as the compiler respectfully suggested, must also be the government's wish.\textsuperscript{12}

Until 1949, when the Nationalist regime lost its grip on the Mainland, almanacs published in various parts of the country managed to adapt successfully to rapidly changing political conditions while maintaining their traditional mantic core. As we shall see in the next chapter, this extraordinary continuity in style and substance can still be found in Taiwan and Hong Kong--testifying not only to the personal resilience of almanac-makers but also to the vitality of the traditional culture in times of great intellectual, social and political upheaval. Yet it would be a mistake to over-emphasize the theme of continuity on the Mainland. After all, China in 1949 was a far cry from the Qing dynasty, even at its end. In the intervening forty years much had changed irrevocably. A vibrant nationalism, a new social awareness and political activism, and a critical scientific spirit had become the common property of many if not most Chinese intellectuals. On the eve of the Chinese communist takeover, revolutionary change was on many people's minds.

A scholar's preface to a 1949 almanac exemplifies the new critical spirit in China, and recalls disclaimers in Anglo-American almanacs written under similarly changed circumstances at an earlier time in Western history. Writing for the \textit{Bolishi qizheng jingwei lishu}, ([Cai] Boli's Almanac of Seven Regulators, Latitude, and Longitude) an almanac based on long-standing traditional principles, the author emphasized that the primary function of a calendar was to tell time. He acknowledged that traditional divination and day-selection materials were still retained in the book, but he explained it away by saying "one has to follow the popular custom." He asserted that this almanac was not to be read merely as a guidance for daily selection matters; rather, "its emphasis is on marking time." This preface was in fact a polite but clear message to all tongshu makers and readers: an almanac was mainly a calendar, and could not help people "seek good

\textsuperscript{12} \textit{Zhonghua Minguo shijiu nian guominli tongshu}, 1930.
fortune and avoid bad fortune," as they used to believe. It was also a none-too-subtle suggestion that contemporary almanacs should be reformed along more rational lines. The times, he intimated, were changing.

III. Almanacs in the People's Republic of China, 1949-Present

On October 1, 1949, Mao Zedong declared the founding of the People's Republic of China in Beijing. The remnant Nationalist regime, still claiming to be the sole legitimate government for all of China, found its haven on Taiwan. Once again, the calendar played a highly symbolic role in the struggle for political legitimacy. While Taiwan continued to number years with its Republican reign title, the Mainland employed Western-style dates, using 1949 to mark the beginning of a completely new era in Chinese history. From that time onward, the Chinese Communist Party has launched a relentless drive to modernize the country, as well as to indoctrinate the whole society with Marxism. Although so far neither goal has been successfully reached, the effort has led to a profound transformation in all the political, social and cultural spectra of the country. In the process, however, modernization has taken a heavy toll on Chinese cultural traditions. The fate of old-style almanacs in the People's Republic of China tells us much about the relationship between the past and the present in a society in which the state continues to exert an extraordinarily powerful influence.

Almanac makers welcomed the new communist regime in 1949 with their usual submissiveness. One 1954 almanac, for example, adopted the title of the new regime and demonstrated its support for the government's Korean War efforts. On the front cover it printed a prevailing couplet-slogan on the two sides of the colorful year gods: "Resist America and Assist Korea; Protect Home and Defend the Country" (Kang Mei yuan Chao; Bao jia wei guo). Printed above the gods was another communist slogan: "Work Hard and Expand Production" (Nuli shengchan). But while paying lip service to the new authorities, the compiler retained all of the
traditional cosmological and divinatory materials in his almanac. As we have seen, this approach had always worked in the past. However, the new regime demanded more than just political submission of the people it governed.

For the first few years of the People's Republic, when the country was still supposedly in a transitional period from the so-called "new democratic revolution" to the "socialist revolution," many economic, social and cultural elements from the "old society" had yet to be eliminated. Soon, however, the state began to attack what it called the "Four Olds:" "old ideas," "old culture," "old customs" and "old habits." Believing themselves to be the torch-bearers of the May Fourth Movement, the communist leaders cherished the great ambition of totally transforming both the physical and the mental world of the Chinese people. One obvious area of change was in the realm of "feudal superstition."

The process had, of course, begun even prior to "Liberation" in 1949. Beginning with Mao Zedong's masterful "Report on an Investigation into the Peasant Movement in Hunan" in 1926, party propagandists urged the rejection of old-fashioned supernatural beliefs. A well-known story written by Zhao Shuli--a leading Chinese communist novelist in the 1930s--ridiculed a village fortune-telling and day-selection believer named Er Zhuge (Second Zhuge) and his neighbor, a woman spiritualist named San Xiangu (Female Immortal the Third), for trying to prevent their children from marrying each other because of their incompatible "eight characters." These two elder figures have come down in contemporary Chinese literature as prototypes of "superstitious" people, to be mocked and criticized.

In their effort to reform old-style tongshu, which also began well before "Liberation," party cadres published small "farmer's almanacs" which disseminated basic agricultural information and propagated revolutionary ideology and party policies in north China. Naturally enough, these works included no "superstitious" material related to divination, although they had a somewhat

traditional appearance. After "Liberation," in tandem with other large-scale campaigns to reform the cultural and ideological aspects of Chinese society, the state authorities began to publish "new almanacs" (xin tongshu) to replace the traditional models.

The Hua'nan Tongshu (South China Almanac) for 1953, published by the South China branch of the People's Publishing House, provides an excellent example of a new-style tongshu. On the front cover are a man and a woman dressed in peasant's clothes, surrounded by several happy children. They are all obviously enjoying the "new society." Chairman Mao's portrait follows on the inside of the front cover. The main content is divided into four parts -- "politics and society," "the calendar and astronomy," "agricultural production," and "hygiene." Aimed at a rural audience, the almanac not only introduces readers to rudimentary scientific knowledge and practical information, but also indoctrinates them with communist ideology. In a fashion reminiscent of the 1921 Republican era version of the "Three-character Classic," it teaches themes such as the greatness of the party, the idea of revolution, patriotism, anti-American-imperialism and Sino-Soviet friendship. This "new almanac" also introduces a recent set of regulations designed to suppress "counter-revolutionary" activities as well as the text of a newly passed law which emphasizes freedom of marriage and equality between men and woman. "Superstitions" are eliminated from the book and receive explicit denunciations.

As the party's social and ideological control tightened, "old almanacs" disappeared completely from the Mainland. Meanwhile, "new almanacs" continued to reflect the various twists and turns of official policy. One such work for 1966, the year which saw the beginning of Mao's Great Proletarian Cultural Revolution, indicates the state's intensified interest in eradicating the "four olds." Despite years of scientific and political education in the countryside, traditional ideas obviously still held some ground. The almanac therefore carried a series of short essays under the

heading of "Stress Science and Destroy Superstition." Castigating the worship of deities such as the "King of Hell" and "the Stove God," as well as practices such as geomancy and eight-character fortune-telling, the editor emphasized that these beliefs and techniques not only cheated people of their money but also allowed the reactionary ruling class of the past to "scare" and "paralyze" them.  

In addition to propaganda the state used intimidation to discourage the "Four Olds." Those who practiced or believed in day-selection, geomancy and other forms of fortune-telling often received public humiliation and legal punishment. Some diviners and spiritualists were even executed during the 1960s and 70s. By the early 1980s, however, following the rise to power of Deng Xiaoping and the inauguration of the so-called "Open Policy," restrictions on fortune-telling and related activities began to loosen. At the same time, state-sponsored efforts to promote the "individual economy" produced a flourishing private printing industry and the establishment of private book stores. The result was that "new almanacs" began to undergo a transformation.  

A "new almanac" for 1985 suggests the changes. In the first place, the slogan "To get rich is glorious"--so prominent in the 1980s and so antithetical to the Maoist viewpoint--is celebrated throughout its pages. Many entries on agriculture and the domestic economy are obviously designed to help farmers to make money. At the same time, under the guise of building "socialist spiritual civilization with Chinese characteristics," many traditional Confucian values are re-emphasized. We see, for example, moral teachings about loyalty in marriage, responsibility to children, and filial piety to parents. In certain respects, of course, new-style almanacs of the 80s carry on the tradition of previous decades. They remain divination-free, full of political slogans, aimed at rural readers, and focused primarily on practical information in the areas of agriculture, meteorology, veterinary medicine and pest control. The almanac mentioned above includes  

a four-page section on "recent developments in science and
technology," which introduces several agriculture-related
inventions and discoveries made in various parts of China as well
in America, South Korea, Britain, Switzerland and East Germany. It
also supplies cooking recipes, notes on medicine, and useful
information on health-care and child-rearing.\footnote{16}

Ironically, the reforms of the 1980s, designed to propel
China more rapidly into "modernity," have led to a revival of
traditional beliefs and practices. In recent years, official
newspapers have repeatedly called attention to the re-emergence
of "feudal superstitions," especially in the countryside, where
eighty percent of the people still live. Even in urban centers, the
comparatively liberal intellectual environment has led to renewed
interest in the \textit{Yijing} not only as the object of serious scholarly
study but also as a practical book of divination. Some mainstream
scholars have expressed their concern over such a "superstitious"
approach in \textit{Yijing} study.\footnote{17} Fortune-tellers have reappeared in
both rural and urban areas to resume their ancient profession,
often unbothered by the authorities. Meanwhile, illegally printed
divination pamphlets have begun to surface in the small rooms
and pushcarts of private book-peddlers, and old-style almanacs
have also begun to make a quiet come-back. These works use low
quality paper, are crudely printed, and poorly bound, yet they
obviously have a following.

One such privately and illegally printed almanac for 1988
reveals a curious mixture of motives (and media) on the part of its
anonymous compiler. Attempting to invoke modern as well as
ancient sanction for his work, he claims that it is based on
calculations by both the famous ancient "astronomer," Master Luo
Tonglie, and the Zijinshan Observatory of the contemporary
Science Institute of China. Quoting Mao's famous phrase about the
treatment of China's traditional heritage, he says that he will "let
the essence be absorbed and the dross be discarded." Under this

\footnote{16} \textit{Xin tongshu}, 1985.
\footnote{17} See Lü Shaogang, p. 386, as an example.
principle, the compiler retains only a limited number of traditional almanac items—such as "the Twelve Palaces" and "day-selection notes"—while including in his list of important holidays and anniversaries the Communist Party's founding date and the birthdays of Mao Zedong and Zhou Enlai, among others. Finally, either in seriousness or with tongue in cheek, he tells his readers that his little almanac will "help the broad masses . . . [and others] to enrich their knowledge, seize the proper farming seasons, obtain a good harvest and thus contribute more wealth to the Four Modernizations."18

Recently the Chinese authorities have tightened their control in the realms of culture and ideology in the wake of the Tiananmen Square Incident. "Superstitious" books have been targeted for attack along with works of pornography and publications spreading ideas of the so-called "bourgeois liberalism." It is doubtful, however, that this kind of control can last for very long. In the view of a contemporary almanac-maker on Taiwan, traditional-style tongshu will be especially difficult for the Mainland authorities to suppress. This, he says, is because almanacs have always been an inseparable part of Chinese people's lives, not something that can be eradicated simply by issuing paper orders. "Once the control is loosened a bit," he predicts, old-style almanacs "will soon come back to people's lives as they were forty years ago."19 Judging from recent developments in China, and looking at the experience of Hong Kong and Taiwan—not to mention the contemporary West—his prognostication might not be too far off the mark.

CHAPTER 6

The Persistence of "Tradition" in China and the West

I. The Contemporary West

In 1828 the Society for the Diffusion of Useful Knowledge published an almanac containing only factual information. It was believed to be the first English almanac "free from astrological nonsense."¹ Contemporary optimists celebrated this as a breakthrough that would end the "empire of astrology" forever.² However, tradition proved to possess a much greater vitality than these people expected. Old-style almanacs continued to be published in the nineteenth century; and when the monopoly of the Stationer was formally broken in 1834, a revival of popular almanacs occurred. Among these publications, the **Old Moore**, founded in 1842, emerged as especially successful, enjoying great popularity even to the present day. In 1902 a scholar lamented that "simple folk" in Britain were being "misled" by the **Old Moore** and other "nonsensical prophesies" in old-style almanacs, but such criticisms do not seem to have affected sales.³ According to Bernard Capp, the **Old Moore** boasted a readership of 1.25 million in 1975.⁴

In America, meanwhile, **The Old Farmer's Almanac**, claiming an annual readership of some nine million, celebrates its 200th anniversary this year (1992). The editors of this work take pride in its long history and its retention of many traditional features. In terms of astrological content, it contains the familiar zodiac man, called the "Famous Debowelled Man of the Signs," together with explanations of his prognostic use. Moon signs are also calculated. One moon-sign chart is for gardening, and another

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² Capp, p. 268.
⁴ Capp, p. 269.
provides a month-by-month timetable providing propitious times for a variety of activities, such as losing weight, buying clothes, seeking favor, starting or ending projects, and undertaking farming activities. Sun signs are also printed each year, predicting the fortunes of individuals. Apart from astrologically related material, The Old Farmer's Almanac contains a standard calendar, amusing anecdotes, scientific predictions and explanations of celestial events, practical instructions for planting, business and house care, lists of holidays and church holy days, tables of exchange and tides, cooking and medical recipes, and miscellaneous advertisements for various items, including gardening equipment, household appliances, medicine, and books as well as astrological consultation, and witchcraft instruction.

It is difficult to know what to make of works such as the Old Moore and The Old Farmer's Almanac. Are they simply quaint and amusing holdovers of a bygone era? Or do they still provide information that readers consider useful? In its 1992 edition the editors of The Old Farmer's Almanac published the views of certain celebrities in American politics, business, entertainment, and the press, who have remained faithful readers "for a number of years." Their opinions suggest a range of opinions. One celebrity remarked that weather prediction was the "dumbest" part of the almanac, while another said that he thought it was very "useful." Some people liked the prognosticative materials, while others claimed not to understand them and found them "useless."  

The editors, for their part, appear interested only in attracting the widest possible readership—a commercial impulse all almanac-makers, past and present, would obviously understand. Their attitude seems to be one of eclecticism and detachment. They do not feel compelled to take a stand on behalf of either modern science or traditional beliefs. Up-to-date information concerning astronomy, geology, meteorology, and agriculture appears together with all sorts of astrological material—rather in the fashion of at least some sections of Hong Kong.

almanacs. The editors do, however, make an effort to separate the
two realms. Every year, for example, they caution readers not to
confuse the astronomical position of the moon with the
astrological one printed in the same book. They explain that
because of precession and other factors, the two zodiacs do not
agree, so the reader should consult different sections of the book
for different needs. Furthermore, the editors appear anxious to
"maintain . . . [the almanac's] traditional elements and yet reflect
the current year."

They claim, for instance, that their forecasts
"are determined both by the use of a secret formula devised by
the founder of this almanac in 1792 and by the most modern
scientific calculations based on solar activity." This statement
recalls the various efforts discussed in the previous chapter by
Chinese almanac-makers in the twentieth century to reconcile the
past and the present, and to summon both ancient and modern
authority in support of their work.

No doubt much of the appeal of The Old Farmer's Almanac
is that it preserves a part of the nation's cultural legacy. President
George Bush said as much in congratulating the almanac on the
occasion of its two hundredth anniversary. It was, Bush said, "the
journal of American Tradition." Viewed in this light, the
retention of the almanac's old-style content, including astrological
materials, might be simply a matter of nostalgia. Perhaps urban
people in the modern era, benifitting from advanced technology
but overwhelmed by the complexity of their daily lives, read The
Old Farmer's Almanac because it offers them a form of mental
escape, a psychological return to America's rural past. We should
not assume, however, that the achaic content of publications such
as The Old Farmer's Almanac has no other social purpose. It is also
possible, for example, that its astrological materials, like its
anecdotes, provide a kind of amusement for readers--comparable
to horoscopes in modern Western newspapers. Polls taken in 1984

show that about 50 percent of the population in the West reads astrological columns, "at least occasionally."\(^8\)

As the twentieth-century equivalents of (and historical successors to) traditional Anglo-American almanacs, modern magazines such as *Harper's Bazaar* and *Redbook* continue to offer astrologically related advice on a wide array of subjects from romance to finance. Thus we find articles such as "Danger Signs," designed to show readers of *Harper's Bazaar* how an understanding of astrology can help modern women to avoid men who are born "heart-breakers."\(^9\) Another article, this one in *Red Book*, shows how men can please their women by buying gifts according to the ladies' horoscopes.\(^10\) Yet another reports on astrologers who have charted the Dow Jones average with amazing accuracy, "turning heavenly signs into dollar signs."\(^11\)

Of course, as with *The Old Farmer's Almanac*, it is difficult to know how seriously modern readers take such articles. Statistics show, however, that of the 50 percent of the Western population that reads astrological columns "at least occasionally," about one in twenty is a strong believer in astrology.\(^12\) This, together with information gathered from a number of other recent polls, suggests that astrology is far more prevalent in the West than one might imagine. For example, *USA Today* claimed in 1983 that about 30 percent of adult Americans believed in astrology to some degree.\(^13\) Five years later, a Gallup poll based on a representative national cross-section of American teenagers from 13-17 years old, revealed that 58 percent believed in astrology--up from 55 percent in 1984 and 40 percent in 1978. That same year, 1988, *Time* magazine reported that about 50 million

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11. Dubin, p. 86.
Americans read astrology, though not all "in DEAD earnest."14 Roger Culver and Philip Ianna, authors of Astrology: True or False (1988) remark in obvious despair: "We are in the midst of an astrological renaissance such as the world has not seen in over four centuries."15

All this is quite surprising, given the concerted effort on the part of modern scientists and other intellectuals to discredit the mantic arts. In 1975, for example, in response to "the increased acceptance of astrology in many parts of the world," 186 leading American astronomers, astrophysics and scientists in other fields issued a statement publicly rejecting astrology as "part and parcel" of the old, unscientific, and irrational magical world-view. These scientists, disturbed by the prevalence of astrological materials in the media and press in "this day of widespread enlightenment and education," expressed their belief that the time had come to "directly" and "forcefully" challenge the "pretentious claims of astrological charlatans."16 Yet clearly their counterattack has fallen short of its goals.

How do we explain the persistence of age-old belief systems such as astrology in this "modern" age of science and rationality? Several theories have been offered. One is that divination, as a kind of "pseudo-science," helps to bridge the social and intellectual gap between science and religion: "Like science, divination is concerned with natural phenomena and predictable, orderly process; but like religion, it relies heavily on faith and presupposes some sort of personal connection with the constantly unfolding but mysterious patterns of cosmic change. Divination satisfies a basic human need to know about the future, and to make sense of it all."17 This "psychological" interpretation, which has nothing to do with whether people can actually read the

15. Culver and Ianna, p. 2.
future from the stars, receives support from several quarters, both scholarly and popular. Keith Thomas, for one, observes that "astrologers and fortune-tellers continue to be patronized by those for whom psychiatrists and psycho-analysts have not provided a satisfactory substitute."18 An article in USA Today (1983) cites scientific testimony that too many people with "real" psychological problems go to astrologers for guidance. This, the authority asserts, delays effective help and thus endangers their physical and psychological health.19 On the other hand, some authors claim that astrology has begun to play "a starring role" in the field of traditional psychotherapy itself.20

According to Evan Zuesse, a scholar writing in the Encyclopedia of Religion (1988), fortune-telling provides a means of coping with the tensions and frustrations of modern life in the West--a kind of counter-cultural response to feelings of alienation. In an increasingly fluid, anonymous, and heterogeneous society, he asserts, practices such as divination restore a sense of control to personal lives "through the aesthetic and probabilistic terms in which predictions are couched." They "desubstantialize" oppressive personal relationships and provide "exotic" alternative identities.21 This idea of using divination as a way of acquiring a feeling of power, comfort, or personal distinctiveness conforms to the findings of an influential survey of the San Francisco Bay Area in 1973, which indicates that astrology has the greatest appeal to "traditionally marginal" social groups in America: the poorly educated, the unemployed, people of color, females, the unmarried, the overweight, the ill, and the lonely.22

Another explanation for the appeal of fortune-telling in the contemporary West is that a number of exponents have made a concerted and self-conscious effort to update their material--to

make it appear to be a true "science" and not simply a "pseudo-science." They have, for example, adopted modern terms, techniques, and methodologies and have made use of new discoveries or hypotheses in the fields of astronomy, physics, chemistry, and biology. Thus we find one advocate of astrology employing the idea of an interaction between "planetary plasmas" and solar activity to account for astrological influences.23 This sort of language sounds good to many modern-minded people. To the extent that clients bring what Thomas calls an "uninformed allegiance" to esoteric fields of knowledge--whether modern medicine or updated astrology--practitioners have a certain "magical" advantage.24 In any case, the strategy seems to be working. A recent survey indicates that thirty-eight percent of the American population believes astrology to be "scientific" or at least "sort of scientific."25 Another study from an earlier period shows no apparent correlation between belief in astrology and rejection of science.26

The use of modern scientific techniques to validate the claims of astrologers has also contributed to a rekindled faith in divination on the part of some people. Michel Gauquelin, a French scholar, has devoted his entire career to measuring the alleged effects of celestial influences on human beings. Gauquelin does not consider himself to be an astrologer, and, in fact, on the basis of his research he has repudiated many conventional astrological beliefs. But, according to him, there seems to be a significant correlation between the success of certain careers and the positions of certain planets, thus revealing "a golden grain of truth in astrological superstition."27 Fundamentally, however, the application of scientific data and methods has been more harmful than productive to the cause of astrology. Most scientists and

25. King, p. 64.
27. Grim, p. 16.
scholars who have taken it seriously as the subject of their experimental research have found no evidence of its validity. Even Gauquelin's findings, upon closer examination, fail to offer a satisfactory proof of astrological effects. Thus, in the minds of some, a better strategy to fend off scientific attacks is to declare that conventional science is simply irrelevant to astrology.

This approach conforms to another of Zuesse's counter-cultural themes: that divination represents "a muted protest against . . . generally accepted scientific values and cosmology." Over the past few decades, there has been an increasing tendency to emphasize the "psycho-spiritual" aspect of astrology, making astrology a kind of mythical and metaphysical belief system that defies common rational and scientific rules—at least those inspired by the principles of Aristotelian logic and of Newtonian classical mechanics. Dane Rudhyar, a champion for "spiritual astrology," claims that astrology's truths are spiritual rather than simply empirical, and that the problem with science (as opposed to astrology) is that it is unconcerned with individual human beings. Rudhyar and other spiritual astrologers hold that "spiritual astrology" sees man and the universe as an organic whole. To them the orthodox interpretations of Newtonian physics offer an incomplete picture of reality.

Their claims are influenced and bolstered by the theories of so-called "quantum mystics." Gary Zukav, author of The Dancing Wu Li Masters (1979), maintains that the time has come to challenge the established Newtonian mechanical world-view. Inspired by the theories of quantum mechanics and influenced by ancient Chinese and Indian correlative concepts, Zukav calls for the construction of a new cosmological outlook that will embrace both the rational and the irrational. Fritjof Capra, in his

28. See Kelly, in Grim, pp. 63-70.
30. See Kelly, in Grim, pp. 70-77.
31. See Gary Zukav, "Einstein Doesn't Like It," in Grim, pp. 285-301.
influential book entitled *The Tao of Physics* (1984), also combines modern particle theories and traditional "Eastern" ideas to establish the concept of the universe as a "unity of all things," in which every element, including mankind, relates to the whole and corresponds with everything else.\(^{32}\) Understandably, a number of astrologers have enthusiastically endorsed these concepts—which, among other things, have helped to recover and redefine the correlative cosmology that has been so vital to astrology.\(^{33}\)

It is clear, however, that the philosophical implications of quantum mechanics have yet to reshape the thinking patterns and outlook of the American public as a whole. It is also clear that although a significant percentage of Americans seem to believe in astrology for one reason or another, divination is still fundamentally a counter-cultural phenomenon.\(^{34}\) One striking indication of its limits in the mainstream of American culture is the public response to the revelation in May of 1988 that astrological considerations affected certain decisions in the Reagan White House. This response provides an illuminating illustration of the enduring social, political, scientific, and theological issues raised by divination in the West since at least the seventeenth century.

The news was that the Reagans often let astrologers' calculations influence their schedules for travelling, diplomatic meetings and press conferences.\(^{35}\) The response was immediate from many influential sectors of American society. Although the Reagans had some loyal defenders, many scientists and intellectuals registered obvious dismay over the news. One author lamented "the defeat of reason."\(^{36}\) More severe reactions came from religious circles—especially Christian fundamentalists. As in

\(^{32}\) See Fritjof Capra, "The Unity of All Things," in Grim, pp. 274-84.

\(^{33}\) Kelly, in Grim, p. 72.

\(^{34}\) Ibid., pp. 51-52.

\(^{35}\) See the discussion in Seaman.

\(^{36}\) Hirst, p. 9.
the past, the antagonism of the religious establishment was motivated by both their faith and a feeling of professional rivalry. A group of evangelical and fundamentalist leaders expressed their disappointment with the Reagans and emphasized that astrology was far from "Biblical truth." An editorial in Christianity Today argued that under the circumstances the church must assume the "burden" of displacing astrology and filling the "spiritual vacuum" of the modern age. In the writer's view, the problem was that the predominance of science, and of Enlightenment thought generally, had failed to make man feel in control of his destiny.

The important point is that in the midst of the storm, the Reagan administration found it necessary to make a public disclaimer. The White House explained that it was Nancy Reagan, not the president, who was "the big star gazer in the family," and that she needed personal "comfort and consolation" from astrologers. President Reagan, meanwhile, reassured the public that "no policy or decision in my mind has ever been influenced by astrology."

II. Contemporary China

The fact that the Reagan White House may have made decisions based on astrology might not be surprising to many Chinese. After all, Mao Zedong himself is widely believed to have availed of divination on occasion. Yet as with President Reagan, Mao's public stance toward such "superstitious" practices had to be one of detachment and denial. In fact, in Mao's case, it was one of outright hostility. To this day on the Mainland, despite a limited revival of interest in traditional almanacs and various other

38. Neff, p. 15.
mantic devices (see chapter 5), they are still officially condemned, discouraged, and often actively suppressed. On Taiwan and in Hong Kong, by contrast, they continue to flourish. Although the "modern" educational systems of both the island and the colony downplay "superstitious" elements of the inherited culture, including divination, there has been no official effort after 1949 to suppress traditional-style almanacs. And, in contrast to the West, where official support for works such as The Old Farmer's Almanac, has been cast solely in terms of their value as monuments to tradition, and where news of the use of astrology in the Reagan White was a source of national embarrassment, in Hong Kong and Taiwan many figures in the government see the divinatory features of traditional-style almanacs as still valid and useful. In fact, in Taiwan we find high-ranking government officials writing prefaces to old-style almanacs in a fashion similar to that of their counterparts in the Qing dynasty.40.

Visitors are often amazed to see the deep entrenchment of age-old divination practices in Hong Kong and Taiwan, despite the growing influence of Western culture.41 Even in urban centers, where modern influences have penetrated to a remarkable degree, commercialized divination services are defiantly ubiquitous, attracting a steady flow of clients. At the same time, in both Chinese environments, almanacs based on traditional models continue to play a significant role in people's lives. A recent survey conducted by the Ethnology Research Center of Taiwan's Central Research Institute revealed that at least 83 percent of the families in Taiwan have a copy of a traditional-style almanac. Of the respondents, 69 percent believed that an almanac was "very

40. In Lin Xianzhi's Tongshu bianlan, for example, the compiler includes four prefaces written respectively by a national legislator, a vice-president of the Taiwan Provincial Congress, a provincial construction bureau chief, and the mayor of Lin's native town--all praising the compiler's scholarly and professional accomplishments and his noble intentions.

necessary" or "necessary" to the conduct of their affairs, 19 percent thought it was "not very necessary, and 5 percent gave "no comment." Although I know of no comparable figures for contemporary Hong Kong, my guess is that the percentage of almanacs owned, as well as the percentage of owners who find them necessary in their daily lives, is at least as high, if not higher than on Taiwan.

The almanacs of Hong Kong and Taiwan can be roughly divided into two basic categories. One we may call tongshu, since they bear a close resemblance to either late Qing or early Republican almanacs. In Taiwan such works are commonly known as tongshu bianlan, or "almanacs for convenient reference." Normally they use (or imitate the use of) old-style thread-binding and block-printing styles in order to acquire a classical look. These Taiwan tongshu usually contain nothing but standard divination materials based on late Qing models. In Hong Kong, the Cantonese people do not like to use the character shu (book) in the term tongshu, since it sounds like another character that means "to lose" (shu). As a result, they employ a more auspicious-sounding character, sheng ("to win") to replace shu; hence the Hong Kong name for almanacs is tongsheng. Tongsheng are also bound and printed in a traditional style, but in content and style they are more like early Republican almanacs than late Qing ones.

The second type of almanac is issued in the fashion of contemporary paperback books and written in modern vernacular Chinese. In Hong Kong it is often called tongli, and in Taiwan, minli ("people's calendar") or nongmin li ("farmer's calendar") For convenience's sake, we may call this type of almanac minli. Compared with tongshu, minli have a greater diversity in content and liveliness in style, and are more intentionally directed to the needs and interests of modern-day lay readers. Although their basic structure is more or less the same as tongshu, their choice of illustrations, divinatory techniques, and other materials reflects a great deal of individual discretion.

The past continues to guide most almanac-makers in contemporary Taiwan and Hong Kong. Tongsheng are particularly full of old-style morality tales and traditional folk wisdom. Furthermore, the basic divinatory features of Qing almanacs—including day-selection notes, astrological techniques, geomancy, fate-extrapolation, physiognomy, coin-tossing, Yijing-related divination and dream interpretation—are all more or less replicated in both tongshu and minli. Although it is not uncommon for individual almanac-makers to differ in their prognostications, especially in Taiwan where divinatory authority is quite dispersed, all almanacs claim to follow the same basic cosmological and divinatory principles that have been handed down from China's ancient imperial past. In fact, one important reference work is still the Xieji bianfang shu, compiled by the Qing court in the eighteenth century. Almanac-makers also emphasize their connection with past masters. On Taiwan, for instance, the well-known compiler Lin Xianzhi boasts an especially long and distinguished line of transmission, dating back to the Tang dynasty. A younger competitor, Gao Mingde, claims to have studied under the tutelage of Lin himself—thus adding Lin's background to his own credentials. In Hong Kong the most respected selection master has long been Cai Boli.

Most Chinese almanac-makers emphasize their reliance on past models and past masters as a way of enhancing the prestige of their yearly publications. A sense of history is still strong in both Hong Kong and Taiwan. Some individuals, however, also see their almanacs as a way of preserving traditional Chinese culture against the onslaught of Western civilization. One such person is Li Deyi, the compiler of the Fu lu shou li shu (Almanac of Blessing, Riches and Longevity) in Taiwan. In 1982 Li wrote a preface explaining why he compiled this particular work. In it, he claimed that the aim of his publisher, the Dayi (Great Righteousness) Publishing House was to "set human relations straight, restore traditional morals, and encourage people to do good deeds."

Moved by this effort to restore China's cultural heritage, uplift social morale, and rectify popular customs in the face of what he
called "the diffusion of degenerate fashions from Europe and America," Li compiled the *Fu lu shou lishu*. Anxious to help the publisher achieve his "noble" purpose in the most effective way, he based the work "on the fortune-telling principles established by the three Hongs [of the legendary lineage of Hong Chaohe]."

Yet despite the powerful influence of the past on their work, almanac-makers in Taiwan and Hong Kong also appreciate the need to keep abreast of current trends. This is particularly true in Taiwan, where *minli* sometimes include material that reads like modern Western popular magazines. A couplet printed on the front cover of the *Jintaibai minli* for 1990 proclaims: "Follow the Times; Preserve Tradition." The two phrases reflect an eagerness on the part of contemporary almanac-makers to produce works that are both "modern" and "Chinese," a familiar theme in China's twentieth-century history. In Hong Kong—a British colony and a buffer area between Taiwan and the Mainland—the "modern" content of almanacs shows a distinctive blend of cultural influences. Most *tongsheng*, for instance, have a list of English phrases with a Cantonese guide to pronunciation, as well as a table of "simplified characters"—the official form of written words used in Mainland China—together with the traditional-style characters still used in Hong Kong and in Taiwan. In Taiwan, Gao Mingde's *Woguo minli* (People's Calendar of Our Country) for 1991 carries an article explaining how the stock market works and offering some practical advice on how to succeed in stock market speculation.

The divinatory concerns of almanacs also reflect "modern" interests and anxieties. Although predictions about making money and avoiding financial loss have always been central to the Chinese mantic tradition, especially as reflected in *tongshu*, the stress is now on modern business practices. Thus, in addition to his straightforward analysis of the stock market, Gao Mingde also offers a special way of predicting stock and bond prices based on calculations involving the traditional system of heavenly stems and earthly branches. In his yearly *Tiebizi minli* (Master Iron Pen's People's Almanac), Zhong Jintian gives his prognostications
for the coming year, including Taiwan's general economic situation as well as real estate or stock market prospects. And the *Tianxin caishen lishu* (Almanac of the Mind of Heaven God of Wealth) for 1991 offers a protective amulet designed to prevent one from losing money in the stock speculation.

Catering to modern businessmen on Taiwan, many almanac-makers now give special attention to the geomantic principles that determine an auspicious site, direction, and layout for offices, commercial buildings, and factories, in addition to houses and graves. Numerology is now extended to the choice of telephone numbers and license plates. Chen Pengren, compiler of the 1991 *Nongmin li* (Farmer's Almanac), informs his readers that modern transportation and communication techniques have greatly improved people's livelihood, and yet a lucky number for a phone or a car plays a crucial role in determining the success of one's business and career. He also explains certain rules concerning the choice of an auspicious name for a company and how to paint a signboard for one's business in such a way as to bring about good luck. Even physiognomy becomes helpful in modern-day business practice because, among other things, it can be used to find effective and reliable salespersons.

Almanac-makers also try to provide solutions for the new and mounting pressures of modern life. Entrance examinations for college, fears over traffic accidents, and even the problem of suicide have all become the compilers' concern. Uncertainty about "love"--something that premodern Chinese seldom had to bother with, since marriages were all arranged--is now a major issue. Many almanacs devote considerable space to traditional style mantic techniques designed to reveal the inquirer's luck in love affairs, or what particular kind of person would be suitable for him or her. One Taiwan *minli* teaches readers to cast lots to find answers to questions such as "Is the person a true lover?" or "Will that person who has left me come back?" The *Tianxin caishen lishu* for 1991 provides amulets not only for the stock market, but also for more romantic purposes, including "improving a triangle
love relationship" and "maintaining love," as well as "harmonizing the relationship between the husband and the wife."

Modern political prophesies also appear in some contemporary Taiwan almanacs. Every year Zhong Jintian's *Tiebizi minli* predicts not only the economic prospects of Taiwan, but also the political situation on both Taiwan and the Chinese Mainland. Significantly, however, Zhong's political prophesies are strictly contained within an orthodox political framework. He is always careful to praise the Taiwan authorities and to denounce "the bogus Mainland government" under Deng Xiaoping. Other Taiwan compilers are equally careful. Whereas Hong Kong almanacs stopped using Republican reign titles after 1949, Taiwan almanacs, both *tongshu* and *minli*, continue to calculate dates in terms of this or that year "of the Republic." Moreover, almanac-makers on Taiwan are not above shameless flattery. Liao Shihao, for instance, in the preface to his *jintaibai minli* for 1990, makes a special point of ascribing the vitality of divination and religious worship in Taiwan to the Nationalist government's "democratic" system and its benevolent policy of preserving China's cultural heritage. In comparison, Liao points out that the disappearance of traditional-style almanacs on the Mainland reflects the authoritarian nature of the communist regime over the last forty years. Occasionally Taiwan almanac-makers will address controversial political issues, but not often. One noteworthy example is Chen Pengren, a Buddhist-oriented diviner who, in his *Nongmin li* (Farmer's Almanac) for 1991, criticized the death penalty, offering a motley collection of views involving science, humanism, Buddhism, and geomancy to make his case.

Despite their obvious emphasis on Chinese culture, at least some almanac-compilers in Hong Kong and Taiwan have demonstrated an interest in assimilating divination arts from foreign countries as well. Zhong Jintian printed a picture of himself posing with a renowned Japanese fortune-teller in his 1990 *Tiebizi minli*. Wei Qianli, a Hong Kong diviner, included in his *Zhongguo tongli* (Chinese Almanac) a translation of a Japanese author's treatise on a physiognomic study of female characters,
complete with surprisingly explicit sex jokes. In the Buyuan tang tongshu (Almanac of the Buyuan Hall) for 1991, a Buddhist physiognomer offered a comparison of Chinese, Indian, and Western techniques of face and palm reading and pondered possible connections. And Gao Mingde's Woguo minli for 1992 included a system for evaluating the character and future prospects of a person based on his or her blood type. Perhaps the most genuinely syncretic attempt to link Chinese and foreign mantic techniques was undertaken by the compiler of the Tianxin caishen lishu. In it, he devoted a large section to modern Western astrology, emphasizing the importance of horoscopic influences on one's love life and career. According to the author, Western astrology should be consulted together with the traditional Chinese zodiac, for if one system gives an inauspicious prediction but the other yields an auspicious sign, then the bad luck might be neutralized. On the other hand, if neither is ideal, then one has to be prepared for the worst.

Like the editors of The Old Farmer's Almanac in America, a number of Chinese almanac-makers have felt free to incorporate scientific concepts into their works without worrying about the possible contradictions between this "modern" information and traditional Chinese folk beliefs. Many Hong Kong tongsheng include up-to-date astronomical charts and scientific discussions of eclipses as well as illustrations of traditional baneful and benevolent stars and their influence on human affairs. Tongsheng often print reasonably accurate illustrations of the development of a human foetus in the mother's womb on the same page with magic charms to protect the baby and the mother. And several almanacs in both Hong Kong and Taiwan provide various "secret formulas" to determine an unborn child's sex—combining traditional divinatory ideas with modern genetic, physiological, and chemical concepts.

Although many contemporary Chinese almanac-makers treat information about the West as an attractive or amusing

adjunct to their own "traditional" content, they also feel the need to take Western learning--particularly Western science--more seriously as a challenge to their craft. Like some astrologers in the West, they are constantly struggling to secure their controversial place in the "modern" world; and in so doing, they have tended to employ similar tactics of legitimization or rationalization--from trying to demonstrate the "scientific" character of ancient Chinese practices to equating or synthesizing them with modern Western science. Some individuals have also questioned whether Western analytical categories are in fact capable of explaining the special, "spiritual" features of China's age-old mantic arts. Examples of all three approaches can be found in the writings of Zhong Jintian, editor of the Tiebizi minli.

Zhong's lecture on geomancy, carried in the 1991 edition of his Tiebizi minli, reveals a clear emphasis on the need to adopt a "scientific methodology" for the study of fengshui, a new set of interpretive rules. According to him, a geomancy based solely on "myth" has no future in the modern age. In approaching geomantic questions, he argues, sectarian authenticity is much less important than whether predictions are accurate, demonstrable, and ultimately practical. Not all the ancient rules should be followed, he asserts, since in science, new discoveries can always replace old "truths." Those who hold blindly to the old ways are indeed "superstitious" practitioners. A true geomancy, in Zhong's view, is a systematic study of nature's various invisible and even unknown forces, designed to help human beings create an ideal living environment.

Zhong and other contemporary diviners have tried various ways to "prove" the validity of their mantic arts. Several of these individuals, Zhong included, have attempted to use scientific concepts such as magnetism to explain traditional correlations and attractions. Chen Pengren's Nongmin li for 1991 carries an article allegedly written by a Mainland scientist who used the theory of electromagnetism to explain the existence of a link between man and the cosmos. A less scientific but no less earnest effort to "prove" the efficacy of divination has been to offer first-hand
testimony by diviners, their students or their clients. In Zheng Xiyuan's *Buyuan tang tongshu* for 1992, he presents the accounts of twenty people who witnessed miraculous geomantic feats he has performed. These witnesses include several of Zheng's disciples, some businessmen, the dean of a school, a Chinese Christian, and a fortune-teller who initially did not believe in geomancy. Stories like these are no doubt advertisements for the compilers themselves, but they are also meant as testimony to the efficacy and credibility of various divination arts.

A number of almanac compilers--again, including Zhong Jintian--have kept an eye on the outside world, searching for foreign examples to consolidate the defense of their traditional craft. Zhong is a particularly good illustration of this mentality and approach. He emphasizes, for instance, that in America more and more people have begun to pay attention to geomancy, and that architects and psychologists alike have acknowledged that the external design and furniture arrangement of a house have "a direct effect" on one's life. He also mentions a study done by an American scholar by the name of Joe Goodavage demonstrating the effect of celestial influences on the growth of plants.44 Liao Shihao, for his part, mentions Michel Gauquelin's research on the possible effects of celestial influences on human beings in his 1990 *Jintaibai minli* (The People's Calendar of Jintaibai).

Ironically, it was Zhong's discovery that scholars at Taiwan's Ethnology Research Center wanted to eliminate all "superstitious" materials, including divination, from popular Chinese almanacs, that prompted him to emphasize the ways in which foreign experience seemed to validate Chinese tradition. In Zhong's view, the foreigners he mentioned had more appreciation for Chinese culture than the scholars at the Center themselves. Accusing them of being "authoritarian" and "ignorant," he now took the traditionalist/ nationalist position that they were the ones who were "superstitious"--for blindly worshipping science and

44. Zhong Jintian, p. 128.
everything that had come from the West.\textsuperscript{45} This apparent
reversal of his position was actually consistent with his sense that,
in the end, divination was an integral part of Chinese tradition,
perhaps its very essence. As long as the authority of the West (or
Japan) supported that tradition, it was worth invoking. But if
science proved to be its enemy, science, rather than the tradition,
had to be questioned. In the end, Zhong's view seems to be that
Chinese "spirit," as reflected in divination, is greater than Western
"science."

\textsuperscript{45} \textit{Ibid.}, p. 129.
CONCLUSION

Although the primary focus of this study is Chinese history, I have tried to adopt an explicitly comparative framework in dealing with the material. Part of the reason, aside from the inherent interest, is to clarify certain cultural questions. One of the most basic of these is: What does China's historical experience look like in the light of other civilizations? For most of recorded history, the Chinese have not bothered to ask this question, because other civilizations did not matter. In fact, from the traditional Chinese perspective, other people were not civilized at all. But during the last century or so, the Chinese have been forced to view their past experience as part of a larger history, which is in many ways inseparable from that of the West. The Scientific and Industrial Revolutions of Europe have become part of Chinese history.

This being so, cultural comparisons are natural, perhaps inevitable. They are also difficult. First there is the question of establishing meaningful grounds for comparison. Then there are issues of periodization. Finally, there is the problem of finding an acceptable level of generalization. When the subjects are the cultures of China, England, and America, and the time period spans from the sixteenth to the twentieth centuries, the problem of finding an acceptable level of generalization is enormous. Yet if the specific comparative focus is clear enough, the general conclusions may have some value.

I have tried to use Chinese and Western (Anglo-American) almanacs as a way of getting at cultural questions--particularly issues related to values, cosmology, social, and political institutions, and patterns of historical change. Although developed in separate environments with no substantial mutual influences, traditional Western almanacs and Chinese tongshu have had enough basic similarities to make comparisons between them fruitful. Both works existed in the form of popular literature and were issued yearly. They consisted primarily of calendars which marked days, months, years, and important dates and festivals.
For most of the period under consideration they included cosmological diagrams, divinatory texts, practical advice, and various forms of folk wisdom, including morality tracts. Both enjoyed enormous popularity for long periods of time, and both contributed to the rhythms of people's daily lives. For readers of a later era, they serve admirably as mirrors of their respective cultural environments.

When I began this project I imagined that China and the West had virtually nothing in common, that I would be exploring cultural differences only. And indeed, a comparison of Chinese and Western almanacs over the last four hundred and fifty years, even at a relatively high level of generalization, reveals a vast cultural gulf. Yet the closer I looked at the evolution of almanacs in the two societies, the more obvious and interesting certain similarities became. Thus, my study developed into two main parts, interwoven in various places. One part emphasized the glaring differences between Chinese and Anglo-American culture; the other focused on the similar ways the two societies responded to the problem of reconciling "tradition" and "modernity," despite these vast differences.

The most fundamental difference between China and the West highlighted by this study appears to be institutional. In China, the state was all-powerful, influencing every sphere of Chinese life. Students of Western history, viewing it in a vacuum, may be struck by the awesome power of popes and kings. But in comparative perspective their power seems almost inconsequential—not least because the on-going struggle between church and state appears to have diffused the power of each. In China there was no such struggle. For literally thousands of years the state dominated all forms of organized religion. Moreover, from the seventh to the early twentieth centuries, it also channeled the minds of its intellectuals through the civil service examination system, particularly after Zhu Xi's commentaries became "orthodox" in 1313. This system, the source of both social and bureaucratic mobility in China until its abolition in 1905, was based on the assumption that moral knowledge (derived from
memorizing the Confucian classics) was the only knowledge worth acquiring.

The cultural effects of the examination system were profound. In the first place, it reinforced traditional Chinese values such as filial piety, which, as I have tried to show, assumed a far greater importance in China than the West. At the same time, it downplayed the role of law, emphasizing instead ritual and moral suasion as the keys to good government. Chinese law was overwhelmingly penal rather than protective and was used by the state with a vengeance if ritual and morality failed to encourage social and political stability. The examination system also discouraged commerce as a legitimate sphere of human activity because of the deep-seated Confucian prejudice against merchants—in sharp contrast to the promotion of "ethical capitalism" in the West. In China merchants had every incentive to invest in education (or at least the purchase of examination degrees) for themselves and their sons rather than putting more money into their own businesses. Finally, the examination system deflected the best minds of the empire away from scientific inquiry, and in the process reinforced the inherited cosmology, which was derived from the Confucian classics. All these themes are revealed by comparing the history of almanacs in China and the West.

In the West, although at certain times almanac-makers had to take into account the attitudes and politics of both the church and the state, neither authority exerted a sustained influence on the content of their works. Their influence was occasionally substantial, but it was generally indirect rather than direct, and in any case did not involve official support of the old cosmology after the sixteenth century, except on the part of a few individual clerics and political figures. In the seventeenth century, during the English Civil War period, the compilers of almanacs occasionally paid a personal price for taking sides in the political struggles, but the price was usually quite small. The same cannot be said for China.
In China, the state has always played a critical role in determining the content of almanacs as well as the political activity (or inactivity) of almanac-makers. From the Han dynasty until the Revolution of 1911, official orthodoxy in China never wavered in its support of divination; and from at least the thirteenth century into the twentieth, day selection columns and other predictive devices were essential elements of the official state calendar as well as unofficial popular almanacs. Almanac-makers were extremely careful not to offend the central government, which even during the imperial era had a totalitarian character unimagined by Westerners until the twentieth century. In the last several hundred years of Chinese history on the Mainland, only for a brief period--during the tumultuous time of civil war and foreign invasion from 1912-1949--did almanac-makers enjoy relative freedom from official control. And even then, as I have tried to show, they proved far more reluctant to challenge political authority, or even take sides in civil conflicts, than their counterparts in seventeenth century England.

From 1949 to the present on the Mainland, the state has generally suppressed traditional-style almanacs and sponsored the systematic production of so-called "new almanacs" designed to promote official orthodoxy. In short, the authorities seem as intent as ever on maintaining control. But recent experience on Taiwan has shown that the long-standing emphasis on orthodoxy in the Chinese political tradition does not mean that the state will continue to require the subordination of its citizens in matters of culture. It may well be that despite the enormity of Mainland China's size and population--and hence its unparalleled political and administrative problems--as the economy develops along free-market lines, the society and eventually the political system will also open up.

This brings me to my second major theme, the relationship between "tradition" and "modernity" in China and the West. Of course these two terms are merely abstractions, impossible to define precisely; yet they signify something to everyone. In the minds of many, they suggest a process of historical movement
(some call it "progress") accelerated by the Scientific Revolution of the sixteenth and especially seventeenth centuries in Europe. There can be no doubt that this development had enormous consequences for the entire world. The interesting issue is the impact it had (or did not have) on individual parts of the globe at different times.

In his pioneering book, *Religion and the Decline of Magic* (1971) Keith Thomas emphasizes the enormous historical importance of the "transformation of consciousness" that took place in Europe during the seventeenth century. He documents in detail the undermining of the old cosmology and the process by which "science" replaced "magic", and fatalism was replaced by "the emergence of a new faith in the potentialities of human initiative." Interestingly enough, John Henderson, in *The Development and Decline of Chinese Cosmology* (1984) makes a somewhat similar claim for "cosmologically subversive technical studies" in China at about the same time, based on his analysis of *kaojü* ("empirical research") scholarship during the early Qing dynasty. Although clearly the two intellectual "transformations" did not achieve the same historical effects, they did have some important common denominators. Moreover, in time China faced many of the same intellectual and cultural problems Europeans did after the Enlightenment in reconciling new ideas and old beliefs.

The history of Chinese and Anglo-American almanacs helps to reveal these similarities. In the first place, as I have tried to show, up to the seventeenth century, the world view of both China and the West was based on similar systems of correlative cosmology, which influenced all realms of life, from farming and medicine to various forms of prediction (including divination). Printed almanacs in both cultures reflected these systems and helped to popularize and standardize them. At the same time, of course, they had the potential of undermining them. In Europe and America this process began in the seventeenth century, whereas in China it began only in the twentieth century.
As suggested above, the primary reason for this difference in timing was the overwhelming power of the Chinese state to maintain the inherited cosmology by reinforcing it at every turn—not least in promulgating the official calendar and insisting that its cosmology be reflected in popular almanacs. Even kaoju scholars, the most radical thinkers of their time in China (but also, significantly, products of the examination system), sought the rectification of the cosmology, not its abandonment. Their ultimate aim, in fact, was the preservation of China's ancient cultural tradition through the restoration of the textual integrity of the Confucian classics—including the Yijing, itself a book of divination with a significance in Chinese culture comparable to that of the Bible in the West. Only when the traditional cosmology became an impediment to meaningful political change after the rise of Chinese nationalism (following the Sino-Japanese War of 1894-95) did Chinese intellectuals attempt to overthrow the old world view, using newly introduced Western concepts of science and democracy. Even then, the inertia of tradition was so powerful that the cosmology continued to endure, as it does to this day in Hong Kong and Taiwan to a remarkable extent.

During the first half of the twentieth century in China, as in eighteenth century England and America, scientifically minded intellectuals took the lead in attempting to overthrow old-fashioned "superstitions"—particularly those pertaining to divination and correlative cosmology. Their greater success in influencing almanac-makers in the West may be attributed not only to the political and social factors already mentioned but also to the different educational backgrounds of those who compiled almanacs in the two cultures. In both England and America, almanac-makers of the seventeenth and eighteenth centuries were quite interested in astronomy and mathematics, and regarded themselves as men of science. So when they began to see a lack of fit between astrology and newly acquired scientific knowledge, they found the former easy to abandon—especially since the religious establishment had also abandoned divination and magic in the aftermath of the Protestant Reformation. By
contrast, until the twentieth century, Chinese tongshu writers remained deeply committed to the traditional cosmology and the divinatory arts, and they had little exposure to modern science—which, after all, was foreign in origin anyway.

Only when Western ideas held out some attraction for the Chinese as a means of achieving "wealth and power" in a world dominated by imperialist expansion did they begin to penetrate Chinese almanacs—particularly after the fall of the Qing dynasty. Thereafter, patriotic themes and modern advertisements begin to appear, for example. And yet the power of tradition was still great. In part this was because China remained a profoundly agrarian society, in which folk wisdom continued to have enormous authority. It was also because many aspects of the inherited cosmology resisted scientific falsification. Since most of the major operators in the Chinese cosmos were invisible, modern astronomy did not undermine Chinese divination in the way it undermined astrology in the West. Furthermore, traditional Chinese medicine, which shared the same cosmological assumptions as divination, continued to have demonstrated efficacy, as it does to this day.

Of course, as the research of Keith Thomas, Herbert Leventhal, and others shows clearly, even after the Scientific Revolution "traditional" beliefs continued to exert a powerful influence in Europe and America. In fact, one of the most interesting similarities between China and the West revealed by the history of almanacs is the way traditional ideas, such as a belief in divination, tend to be justified—particularly in the light of modern "science." To this day in both Hong Kong and Taiwan, as well as in Europe and America, advocates of divination employ similar strategies of "legitimation." These include not only seeking validation in other cultures and up-dating traditional techniques by incorporating new scientific knowledge and methodologies but also rejecting conventional scientific wisdom in the name of "higher" values, to be found either in non-classical science (for example, quantum mechanics) or in mysticism (or, for that matter, in "quantum mysticism")."
In any case, as Stanley Tambiah argues in Magic, Science and Religion, and the Scope of Rationality (1990), it is a mistake to draw the distinctions between traditional "mysticism" and modern "science" too sharply. Clearly there are many ways to look at "reality." Comparative studies of the sort I have attempted here are, I hope, a useful reminder of this important point.
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Figure 1. Spring Ox and the Herdsman

(a) Liwen tang xin tongshu (1876).

(b) Hong Kong Guanjing tang tongsheng (Cai Erchun and Cai Xinghua, 1992).
图2. 清代《石柱志》（1774年）中的日历，带有读者的手写注释。
Figure 3. Day columns (calendar) in Hong Kong Jubao lou tongsheng (Li Xianzhang and Li Yuanjiang, 1991).
Figure 4. Amulets for various parts of the body. These must be applied at specified times in order to treat different afflictions. (from a Qing almanac)
(a) **American Almanack** (Nathaniel Ames, 1729).

(b) **The Old Farmer's Almanac** (Robert B. Thomas, 1992).

Figure 5. "Man of the Signs"
<table>
<thead>
<tr>
<th>XI. NOVEMBER hath XXX Days.</th>
<th>D'style</th>
<th>D'style</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Moon, 3rd day, 5a.m. Morning.</td>
<td>4-00</td>
<td>18-6-40</td>
</tr>
<tr>
<td>Last Quarter, 10th day, 12h. 41m. Morning.</td>
<td>16-0-40</td>
<td>5-20</td>
</tr>
<tr>
<td>New Moon, 17th day, 5h. 16m. Morning.</td>
<td>16-0-40</td>
<td>5-20</td>
</tr>
<tr>
<td>First Quarter, 25th day, 4h. 47m. Morning.</td>
<td>4-00</td>
<td>18-6-40</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>M</th>
<th>W</th>
<th>Remarkable Days, Weather, Aspects, &amp;c.</th>
<th>D'style</th>
<th>D'style</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>th</td>
<td>All Saints</td>
<td>windy</td>
<td>4-00</td>
</tr>
<tr>
<td>2</td>
<td>fr</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>sa</td>
<td>21st Pauls Trinity</td>
<td>sun.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>su</td>
<td>Gunpowder Plot</td>
<td>led</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>tu</td>
<td>col.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>we</td>
<td>col. 5, 6 near P</td>
<td>with</td>
<td>9-30</td>
</tr>
<tr>
<td>7</td>
<td>th</td>
<td>6 8 9 10 11</td>
<td>rain</td>
<td>10-30</td>
</tr>
<tr>
<td>8</td>
<td>fr</td>
<td>11 near P, Penzgon</td>
<td>col.</td>
<td>11-40</td>
</tr>
<tr>
<td>9</td>
<td>sa</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>10</td>
<td>su</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>tu</td>
<td>2nd Pauls Trinity</td>
<td>sun.</td>
<td>12-40</td>
</tr>
<tr>
<td>12</td>
<td>we</td>
<td>col. 8 9</td>
<td>with</td>
<td>13-40</td>
</tr>
<tr>
<td>13</td>
<td>th</td>
<td>1 2 3 4 5 6</td>
<td>sun.</td>
<td>14-40</td>
</tr>
<tr>
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SOW peas, earth up collery, and tie up endive for blanching. Sow parsley, spinage, radishes and lettuce of all kinds. Trim and dress your asparagus beds, if neglected last month. Prune fruit trees, especially vines, which may now be done with safety.

Figure 6. Calendar page from The South Carolina and Georgia Almanack (1770).
A MONTH-BY-MONTH ASTROLOGICAL TIMETABLE FOR 1992

Here we provide the following monthly chart, based on the Moon signs, showing the appropriate times each month for certain activities. By Joanne H. Lemieux

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Figure 7. An astrological timetable in The Old Farmer's Almanac (Robert B. Thomas, 1992).