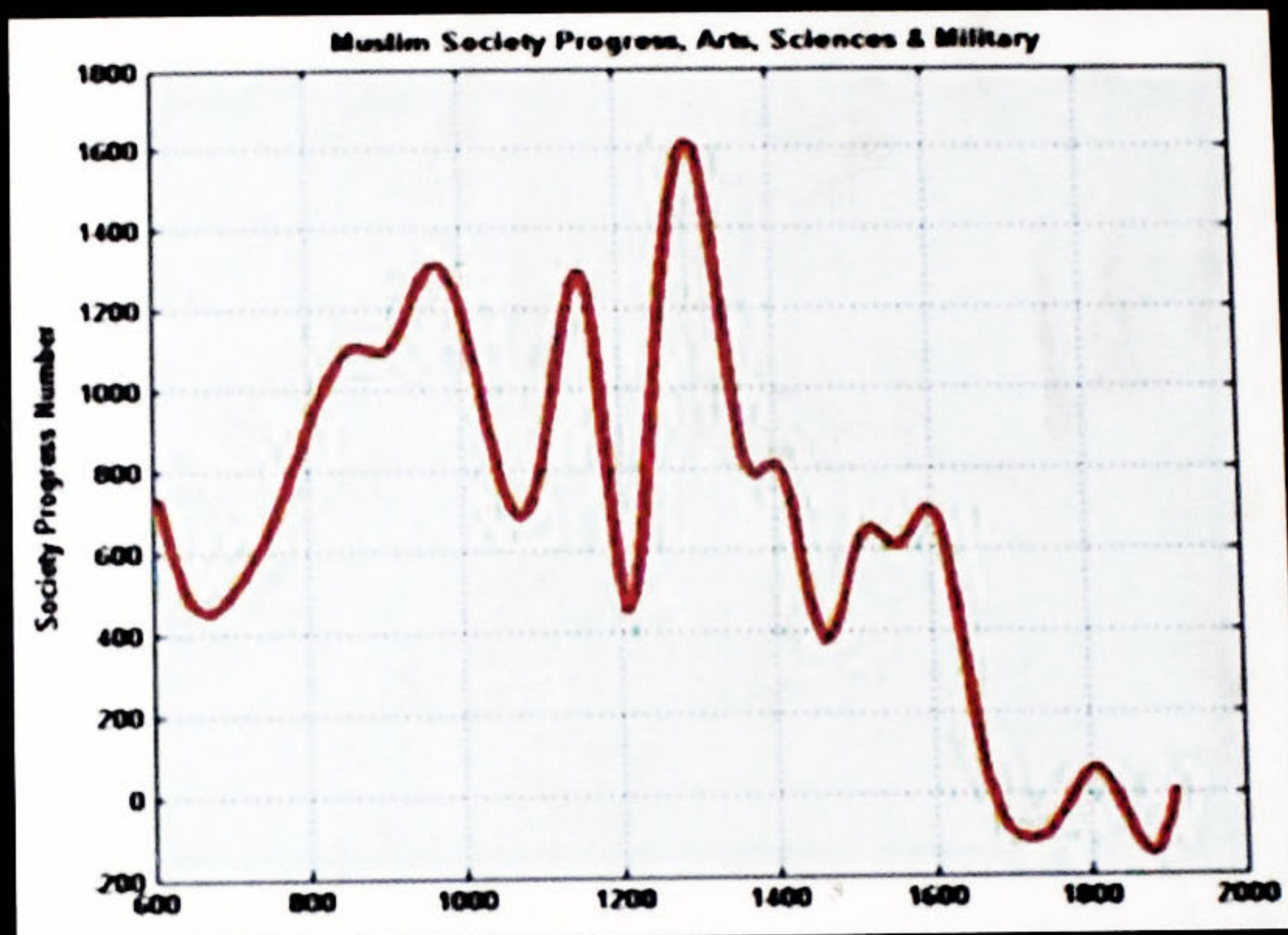


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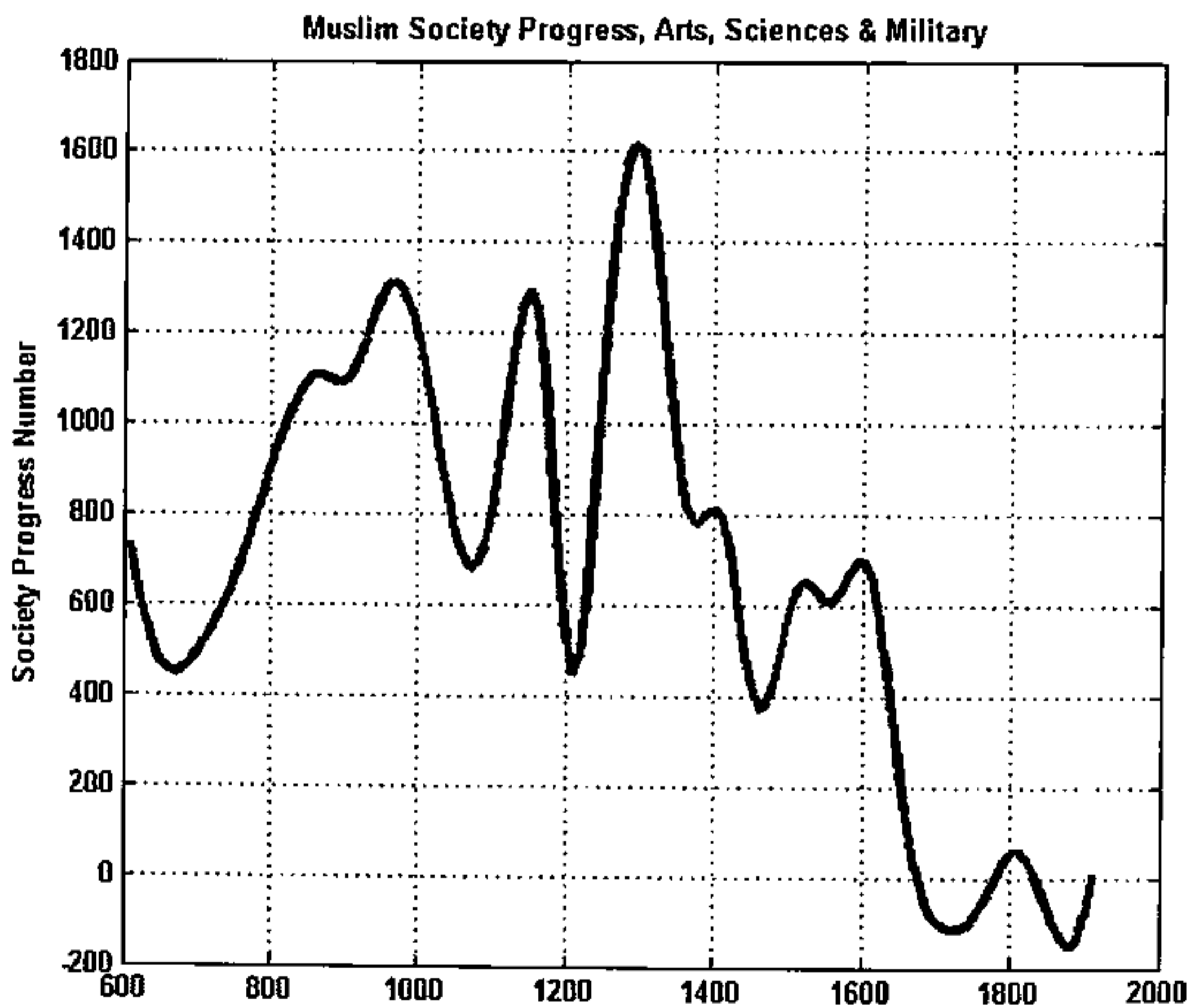
THE
REAL ROOT CAUSES
AND
WHAT CAN
BE DONE NEXT

MISBAH ISLAM

2015

DECLINE OF MUSLIM STATES AND SOCIETIES

THE REAL ROOT CAUSES
AND
WHAT CAN BE DONE NEXT



MISBAH ISLAM

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DATA CENTER

*Dedicated to
the three nicest ladies
I know:*

*my mother (Badr un Nisa),
my sister (Najam Monawar),
and
my wife (Nigar Fatima Islam)*

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Preface

Go to any gathering of Muslims and you can hear the common refrain about the reasons of the present condition of Muslim societies, which go something like this: "The sad state of affairs is due to our inherent disunity," "We deserve it because we have deviated from the path so clearly shown to us by the Quran and the Sunnah, and still we have not learned any lesson," "In a large part it is due to the monarchical system of government setup just after the period of Righteous Caliphs," "We have neglected our institutions, especially educational, for far too long," "Since we are the recipients of the true message of God, we have been subject of intense jealousy and intrigues right from day one, and we have been too naïve not to recognize these threats or take adequate defensive measures," "We believed in the notions of 'Kismet,' predestination, and ritual prayers so much so that it affected all incentive and endeavors to improve," "We have been involved in internecine conflicts and schisms that sapped out energies, rendering us vulnerable against the relentless onslaught of enemies striking at the very heart of Muslim states," "Our elites and professionals were and are totally incompetent," or the ubiquitous "It is all the fault of the mullah (and nobody else)," and the one-liners never end.

In a gathering where non-Muslims are present and the subject is broached, the opinions expressed are more circumspect. It is however possible to decipher the underlying messages and read between the lines: "You are unaware of or do not know how to practice democratic norms," "You can brook no difference of opinion or allow freedom of expression," "You have suppressed and made chattels of half of your population to the point of denying of their basic rights," "You have been down for so long, and since you see no way out of your predicament, you are now venting your frustrations through violence, to our peril," "You are an undisciplined lot and do not know how to organize or to stay focussed," "You missed the boat while Europeans were transforming their societies through enlightenment and renaissance," and the list of one-liners, howsoever unpalatable, goes on.

It is undeniable that there are elements of truth in most of the above statements. These clichés are also codependent in a complex way. The main question remains how to prioritize these clichés, to determine their interactions and the possible basic level reasons for their existence. It remains the aim of this book to try to investigate these issues.

We also have to deal with terms like "civilization" and "society." Civilization is an encompassing term that characterizes the cumulative intellectual, cultural, and social

achievements that have evolved over a considerable period and whose norms are practiced by a group of people. A society is a more tangible term that can be viewed as a collection of people that are subject to and work under the rules of a governing authority. A Muslim society implies that the majority of the population is living under Islamic rules. A Muslim state will have a nominally Muslim ruling authority and may include both Muslim and non-Muslim societies.

Discourse about the progress or decline of the Muslim society is not new; it certainly predates the tragic events of the past decade. There have been many Muslim scholars who have been dealing with the issue, including Ibn Khaldun (d. 1406) who pioneered the study of the life cycle of civilizations and societies. During the past decade, the market has been flooded with literature on the subject, and lots have been produced by the print and the electronic media.

Current literature on this issue can be broadly classified in two categories:

1. Didactic or advisory: From the vantage point of the West, by authors such as Bernard Lewis's *What Went Wrong* (Ref: LB) and Samuel Huntington's *Clash of Civilizations* (Ref: HS) and others.
2. Explanatory or defensive: By mostly Muslim writers such as Tariq Ramadan's *Islam, the West, and Challenges to Modernity* (Ref: RT), Murad Hofman's *Islam: The Alternative* (Ref: HM), and others.

The media on the other hand has been extremely impatient and averse to impartial reporting and investigation of the root causes for the current malaise. Instead, it has been engaged in paraphrasing the "do this or else" message emanating from the centers of power.

Under these circumstances, there is a need for a fresh look at the causes of the decline of Muslim societies. At the personal level, inspiration of this work comes from my maternal grandfather, the late professor Syed Mahmud Ali who in the 1930s authored a series of books on the same theme: *Deen o Ayeen* (Faith and the Constitution), *Dean o Daulat* (Faith and the State), and *Rushd ur Rashideen* (Virtues of the Rightly Guided) (Ref: ASM).

Methodical determination of the root causes of the decline could be useful in designing a framework for directly ameliorating Muslim societies and indirectly the world at large. Suffice to say, the problem of identifying and cataloguing the reasons of the decline of the Muslim societies is large scale due to the vast number of possible basic factors such as "low literacy level," "messy transition of power," "taxation problems" that can affect the proper functioning of the society. The problem is also complex because of nature of interactions between some of these basic factors. It would be interesting to see if novel techniques could be used to analyze the historical data and uncover the contribution of basic factors to the overall state of affairs.

It may be mentioned that the author is not a historian by profession and therefore should be excused if there is any lapse or flaw in the interpretation of historical data. It may be appropriate to apply system and data analysis techniques for historical data processing to uncover trends in important metrics such as the achievements in arts and sciences to see if that could yield useful results. It is believed that Muslim history data has not been subjected to such quantitative analysis before. In addition, it is intended to use the information technology technique of successive refinement to classify and expose the factors that could have been instrumental in bringing about the cycles of rise and fall during the Muslim history.

The main objectives of this work include

- compilation of historical data pertaining to achievements by the Muslim society and individuals in a variety of fields
- determination of a quantitative measure to gauge the progress or decline of the Muslim society
- design of a map showing the dependencies between different types of deficiencies
- application of system analysis techniques to trace the progress or decline of the Muslim society over time
- identification of basic factors contributing to the decline or progress of the Muslim society, their classification and taxonomy
- outline processes for self-improvement and the amelioration of Muslim societies

It should not be surprising for anybody that the rulers and the governing elite of the Muslim states who failed to rise up to the challenge of developing the society were mainly responsible for its decline. They managed to lodge themselves into positions of power for which they were singularly incompetent. The Peter Principle was as applicable in the medieval era as it is in the contemporary age.

These rulers obtained their power through dynastic succession or by the force of arms. Most of them did not either possess the strength of character, belief, vision, or competence expected of a ruler of the Muslim state. Not far behind in this misdeed were the elite and sycophants who neglecting their obligations for the economic, security, educational, and cultural development of the people skimmed off the resources of the state with or without the connivance of the ruler. They could also change allegiances to anybody from anywhere at the drop of a silver dirham.

Chapter 1 covers the purpose and scope, the period of investigation, and the expected results from this work. It also includes a brief introduction to the central theme of the faith that is one of the determinants for measuring progress or decline in relative terms.

Chapter 2 formally defines the terms "progress" and "decline" and proposes a scheme to determine its magnitude. It also points to the way historical data relating to achievements

in sciences, arts, infrastructure, records of military campaigns, and rebellions and the characteristics of the ruling dynasties has been collected and packaged. All these data are summarized, tabulated, and plotted to help in the interpretation of salient point and trends. A composite value, Society Progress Number is calculated and plotted to summarize the overall level of progress or decline.

Chapter 3 proceeds with cataloguing and classifying the causes of decline. This is necessary in tackling a problem of such a magnitude and complexity. It proposes taxonomy for the deficiency elements and the benefits accruing from such classification. It also investigates the relationship between the deficiency elements along with a graphical representation. It describes nine issues related to the metaproblem related to deficiency elements.

Chapters 4 to 8 describe the deficiencies in different areas. These are derived as a result of analysis, collation, and interpretation of historical facts. Chapter 4 deals with the behavioral issues at the individual or the community levels. Issues related to religion, doctrine, and practice are covered in chapter 5. Chapter 6 deals with problems related to knowledge acquisition and use. The deficiencies in political, governance, and military matters are discussed in chapter 7. Chapter 8 describes the issues related to economy, production, and trade.

Chapter 9 summarizes the findings of analysis and points the way ahead. It identifies important deficiencies that have managed to pass from the medieval to the contemporary times unscathed and must be the prime target for improvement. It also outlines a process for improvement of the Muslim societies.

Appendix 2 describes the methodology for calculating a measure for the progress or decline of a society. The list of achievements in philosophy, sciences, and arts are tabulated in appendix 3. Appendix 4 provides a chronological account of battlefield victories and defeats and lists rebellions, civil wars and events from the colonial encounter. A summary of Muslim dynasties and ruling groups is given in appendix 5. To facilitate analysis and comparisons, all tabulations in the appendices are organized in fifty-year packets. Appendix 6 includes miscellaneous and summary information.

Intended Audience

The intended audience of this book includes students, historians, social scientists, journalists and policy makers. It would be gratifying indeed if this work could be used as input for further research in quantitative history and if that can help in devising a defensible plan for the resuscitation of Muslim societies. If that were to happen even in a minuscule way and if that also resulted in the reduction of global tensions, then the purpose of the book would have been met.

Acknowledgments

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March 2008

Foreword

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The divine is an important factor in History. For Islamic History, it is an overwhelming factor. The rapidity with which a few backward nomadic tribes, in the 7th century, came out from the Arabian Peninsula, conquered much of the world and became torchbearers of civilization, is stunning.

What was the situation of Eurasia at the beginning of the 7th century? If we except the Chinese World, there was the so-called Intermediate Region of civilization that covered an enormous area from the Indus river in the East to Italy in the West. The West as a civilization, had not yet appeared and France, England and Germany were ruled by the so-called Barbarian kingdoms.

Forming a bridge between Western and Eastern civilisations, the lands between the Adriatic and the Indus still today comprise the Intermediate Region. Extending from the eastern half of Europe to the western half of Asia, this vast area shows that in terms of civilisation, there is neither a uniform Europe nor a uniform Asia. Thus "Europe" and "Asia" are terms which refer to geographical regions and not to civilisations. According to population, the dominant religions in the Intermediate Region, are Orthodox Christianity and Sunni Islam, and to a lesser extent Shiite Islam, Alevism and Judaism. In contrast, Catholicism and Protestantism dominate in the West, as do Hinduism and Buddhism in the East.

As a cohesive civilisation, the Intermediate Region was governed by the correspondingly unifying political structure of the ecumenical empire, whose centre lay by the Turkish Straits and the Aegean Sea. In this respect, this "Central Empire" had been fundamentally the same for 2500 years. From the Persian empire of Darius, it passed into the hands of Alexander the Great, then to the Hellenistic Romans, the Christian Romans and finally to the Bektashi-Alevi Ottomans until 1923-24. It is observed that a consistent policy of unifying its respective peoples was pursued by its successive leaders. There were also attempts by other empires which were situated along its periphery to seize succession to

the Central Empire. These "Peripheral Empires" were the Arab, the Islamic, the Persian and the Russian (until 1917.) The Arabs in the 8th century and the Russians in the 20th century came close in doing so, but without finally attaining to succession.

By virtue of its civilisational commonality and its unifying character, the dynamic between the Central Empire and the Peripheral Empires constitutes an *internal* conflict in the Intermediate Region. For nearly 2000 years, the focal point around which these conflicts revolved had been Byzantium-Constantinople-Istanbul. Each of the main peoples in this area struggled to seize control of this centre of influence. On the other hand, Western intervention is considered to be an *external* conflict since it sought not succession, but the destruction of the ecumenical empire. Since the 18th century, the West has pursued a policy of dismemberment (Balkanisation) and Westernisation, that is, the eroding of the civilisational foundations of the Intermediate Region.

In summary, "due to historical events spanning thousands of years, the Eurasian continent, of which Europe is but one of its peninsulas, comprises three civilisational areas: a) The West, which today includes North America, Australia and New Zealand, as well as Western Europe b) The East or "Far East" which includes the peninsulas of India, Southeast Asia (with Indonesia) and China (with Korea and Japan.) c) The Intermediate Region, which is found both in the East and the West." (D. Kitsikis, L'Empire ottoman, Paris, PUF, 1985, p.15).

At the start of the 7th century A.D. the Intermediate Region was ruled by two impressive Empires: the central Roman Empire which was Christian with its capital in Constantinople (Charlemagne appeared only in 800 with his pretensions to create a Western Roman Empire) and the peripheral Persian Empire which was Zoroastrian, with its capital Ctesiphon on the Tigris. The river Euphrates constituted the border between the two Empires stemming from the original single Empire of Alexander the Great. To the north, Russia and the Slavs, still barbarian, had not yet entered into the realm of History.

In twenty years, in a blitzkrieg, from 632 to 651, the Bedouins of the desert on their desert ships, their camels, attacked both Romans (Byzantines) and Persians who mounted horses. The desert was a great sea of sand which saw its waves braking on the northern shores of Rome and Persia. The new religion of the desert, Islam, spread like fire inside both Byzantium and Iran. encompassing the whole of the Intermediate Region. In 636, four years, after the death of the Prophet, Byzantine Syria was conquered and one year later Ctesiphon was abandoned by its Emperor and by 651 the whole Persian Empire collapsed. In two years, from 639 to 641, Christian Byzantine Egypt was conquered. In 711, the Arabs, after defeating the Barbarian king of the Visigoths of Spain, crossed the Pyrenees mountains and entered present day France. The Arabs were not interested in the Barbarians. They were interested in civilization and its representative, the Roman(Byzantine) Empire.

If they went as far to the West as the Pyrenees, this was with the final aim to encircle the Byzantines by trying to cross the Alps and heading towards Constantinople from Italy. They had already defeated Persia and were trying to encircle Constantinople from the East as well. This huge strategic operation in the form of pincers finally failed because the Arabs were stopped in 732 by the Barbarian Franks at Poitiers. But even if they had not been defeated by the Franks of Charles Martel, they probably would not have been able to cross the Alps because they had gone too far away from their basis. So they finally settled south of the Pyrenees and kept Spain until the end of the 15th century to which as civilizers, they transmitted the civilization of the Intermediate Region i.e. the Byzantine-Persian synthesis (called "Greek civilization").

On the Eastern frontier of the Intermediate Region, the Arabs defeated the Chinese in 751 at Talas, in Central Asia. From Talas to the Indus river they had reached the utmost eastern borders of the Intermediate Region as they had been defined by Alexander the Great. They had become the successors of the Greek conqueror. Nevertheless, the Arabs had never been successful in conquering the centre of the Intermediate Region, Constantinople. Both Arab sieges failed, in 674-678 and 717-718. After that, the polyethnic Islamic society regrouped on the periphery of the Byzantine Empire, under the Abbasids, founded their capital Baghdad in 762, near the former capital of the Persians, Ctesiphon and Baghdad in 850 became the rival of Constantinople. This was the apex of Islamic civilization.

The conquering of Constantinople, in 1453, by the Ottomans, did not mark a revival of Islamic civilization, first because the Ottoman dynasty was Bektashi-Alevi in origin, and used Sunni Islam only as a political religion in order to thwart the enormous danger of Shia Iran in the 16th century, in the same way that in the 7th century, Christian Constantinople faced the threat of Zoroastrian Ctesiphon. Second, because the Ottomans considered themselves the heirs of Byzantium and not of the Abbasids of Baghdad. The consequence was that the Arab provinces of the Ottoman Empire were neglected and lived a peripheral life while the two lungs of the Empire were present day Greece and Turkey. The Ottoman civilization was a synthesis which continued the Byzantine civilization and therefore cannot be considered the continuation of Islamic civilization. During the whole period of Ottoman rule, Islamic civilization continued to decline up to the day when, at the end of the 17th century the West attacked the Ottoman Empire in order to subdue it.

This was the time when the process of thirdworldization was put into motion by the West. It consisted in exploiting the non western societies of the world i.e. Ottoman, Russian, Indian and Chinese societies, in impoverishing them one by one. Once they had reached the very bottom of poverty and exploitation, the social harmony of these societies were utterly destroyed. Unbalanced as they had become, they were forced by the West to westernize i.e. to develop from bottom up in an unbalanced way, totally depended for

their needs from the West. This was called modernization of developing nations. The net result was that all of them lost their proper civilization in order to adopt a truncated western civilization. The Ottoman Empire had the same fate than all the other non Western societies and the nation states that came out from its dismemberment had the same aspect of third world underdeveloped countries with no civilization of their own left. This was also the case of Arab and other Muslim countries. So the decline of Muslim civilization that was marked with the falling of Baghdad to the Mongols in 1258, could not be revived by the basically non Muslim Ottoman Empire, at least in the Intermediate Region. The Muslim societies that developed in Iran and India were also overtaken and destroyed by Western imperialism.

Nevertheless, the 21st century has dawned with an immense promise for Islam. The archbishop of Canterbury in England, has advanced the opinion that recognition in the West of the holy law of Islam was inevitable. In all Western Europe and North America mosques have been multiplying at an astonishing rate. The Muslim population in the West is rising fast and its voice becomes overwhelmingly present. One could easily predict that Western civilization could soon be taken into the hands of Islam. It is a hard fact that, contrary to the Western Christian population who has estranged itself from Christ, do not bear children, destroy family values, engage itself in excessive consumerism, the Muslim population has kept its faith in God and live a family life that conforms to God's will.

The divine is an important factor in History. Unless there is a Christian revival, something I, as a Christian myself, strongly desire, the islamization of the West is inevitable and Western civilization will become Islamic. In the fourth century the Roman Empire was of Greek religion but faith had evaporated. So, quite naturally, it was replaced by a Hellenized Jewish religion, Christianity. In the 21st century, in the West faith has evaporated. So, quite naturally, Westernized Muslim religion will replace Christianity. God always rewards its faithful.

Pen sketch of Professor Dimitri Kitsikis:

Professor Kitsikis is a Greek turkologist and Professor Emeritus of International Relations and Geopolitics. A devout Orthodox Christian, he came to sympathize with the Turkish religion of Bektashism-Alevism and sought to ally it with Orthodoxy, in order to form a basis for a future political union between Athens and Ankara. Believing in the collaboration of religious communities, as in the Millet system of the Ottoman Empire, he worked closely with Shia Muslims in Iran, Jews in Israel and Hindu Vaishnavs in India.

Professor Kitsikis is the author of thirty-four books on history. He is the founder of four concepts that revolutionized the history of the Greek-Turkish Area:

- a) The "Intermediate Region" (Endiamese Perioche, 'Ενδιάμεση Περιοχή) of civilization, extending from the Adriatic Sea to the Indus River, between the Euro-American West and the Hindu-Chinese East.
- b) Eastern Party ('Ανατολική Παράταξις) versus Western Party (Δυτική Παράταξις) as an antagonist couple;
- c) Hellenoturkism ('Ελληνοτουρκισμός) as an ideology and as a phenomenon of civilization for the last one thousand years;
- d) Bektashi-Alevi religious origin of the Ottoman Dynasty, the Islamization of which developed hand-in-hand with its secularization and westernization.

References:

http://en.wikipedia.org/wiki/Dimitri_Kitsikis

http://en.wikipedia.org/wiki/Intermediate_Region

Chapter 1

The Basics

Introduction

Muslim societies have a chequered history of having achieved a lot in a short period of time due to the initial momentum generated by the exemplary life of the Holy Prophet¹ and the Righteous Caliphs. After that there was the onset of the long saga of general decline albeit punctuated by brief spikes of revival and brilliance. At the onset, the phenomenal ascent was possible mainly due to their sincerity of purpose, suppression of personal ambition, and strict adherence to the central theme of the faith. Under these just rulers, groundwork was laid for the emergence of a world-class state in which its inhabitants could thrive materially and spiritually.

Over time, with the erosion of above-stated values, there is, and has been, gradual and perceptible decline. Nevertheless, not all is that bleak, there was and still is the underlying strength in the Muslim ideology and ethos that has been instrumental in keeping the spark alive in the hearts of the people despite the abject failures at the establishment level. Even in the collapse at the state and societal levels, in Vietnam, Mali, or Sao Paulo, the unity of Muslim culture and the loving sense of belonging to the larger community of faith (*Ummah Muhammadiye*) still exists. This can be attributed to the inherent beauty of the message and the rapturous love that it instills and the inner peace that it brings to the hearts of devout men and women.

That speaks to the quality of the message, the way it has been projected and practiced by the Holy Prophet. There must be overriding reasons why the Muslim societies became so much mired into a situation out of which they are unable or ill equipped to pull through. The challenge is how to retard, stop and reverse the unrelenting decline over the past thousand years.

A problem of this magnitude, complexity, and longevity requires a systematic approach before a trustworthy solution can be formulated. The first step is to perform situational

¹ The Holy Prophet (Peace be upon him, PBUH)

analysis and diagnostics. The primary objective is to uncover the deficiencies in the system and to identify those that have had the greatest impact. This information is required to chalk out a workable plan for the treatment of the ills and the amelioration of the society. The effort is multidisciplinary by nature as it involves compilation of historical and social data, its analysis and interpretation.

Its outcome could be used to design policies for kick-starting the revival of Muslim societies and enhancing the quality of life for the adherents of the faith.

Societies, States, and Civilizations

Since we are investigating the decline and decay of societies, we have to define what is actually meant by the terms "societies," "states," and "civilizations." We have to provide an overview of their life cycle as to how they come into being, reach maturity, decay, and eventually vanish.

Formation of Societies, States, and Empires

People with common interests and outlook that are in close physical proximity tend to organize into small groups called communities, e.g., the nascent community of Muslims in Mecca immediately after the declaration of the prophethood. The premise is that belonging to a community, a member can achieve much more than what he can do individually, in terms of preserving or advancing security, lifestyle, common values, and aspirations.

A society is a larger and evolved structure possibly comprising of multiple communities. It is a semiclosed system whose purpose is to offer greater measure of stability and self-sufficiency. Since most of the social and other interactions take place locally, it lays down rules pertaining to the behavior expected from its members. A society has political, geographic, and regional connotations. It can be viewed as a collection of communities that are subject to and work under the rules of a governing authority.

A society can be characterized by attributes and practices that its members are expected to abide by. These include

- rituals: religion and faith
- values: appreciation of piety, justice, valor, honor, behavior, acquisition of knowledge, wealth or power, etc.
- practices: cultural, social, governance, military
- material advancement through agriculture, trade, commerce, and industry

Different societies may lay different set of emphasis on these attributes. Some societies may be ritual centered; others may assign higher priority to the observance of values and to

material advancement. In theory, societies can be classified as primitive (hunter-gatherer), e.g., Bushmen of Kalahari; pastoral (chieftain/commoners), e.g., feudal, warlord, and cult based; stratified (king, nobles, and serfs); and egalitarian (democratic governance). In practice, most societies share the characteristics of one or more of the others'.

As societies evolve and become mature, they set up institutions and formal rules of behavior. As functional units, societies can coalesce or network with other like-minded ones or be involuntarily taken over by others to form larger societies and governance structures such as city-states or the nation-states. For example, the city-states of ancient Greece that were merged into a larger state by Alexander, or the Muslim city-state of Medina that blossomed into the Islamic superstate. Nation-states that are ideologically motivated or that in some respects are administratively, culturally, militarily, or economically superior with respect to other nation-states can expand into empires over time. In most cases, this expansion is through force of arms or pressure. It is debatable whether this expansion and takeover is morally or ethically justifiable or whether the old dictum "Might is right" holds sway. In some cases, weaker societies may prudently decide to coalesce with the stronger ones voluntarily.

One characteristic that is shared between the city and nation-states and the empires is the existence of a formal ruling hierarchy along with a complex social structure of privileged elites, soldiery, artisans, peasants and common working classes. It is not surprising that such complex structures have built-in tensions across various strata of the society. Under stress, the concealed fault lines can widen and give rise to disruptive forces that may lead to decline and eventual demise.

Emergence of Civilizations

Civilization is an esoteric concept as compared to tangled entities such as societies, city- and nation-states, and the empires. Broadly speaking, a civilization can be regarded as the hallmark of a large and complex society that has gelled and matured over time. In doing so, the complex society has developed self-sustaining set of rules of behavior, rituals and practices, artistic style along with frameworks for its legal, governance, knowledge, technological, and economic needs. When we speak of a particular civilization, we immediately associate with it a preconceived set of rules, styles, and frameworks.

Civilization can be defined in the normative sense, i.e., its expected quality and its distinguishing features. According to Huntington, civilization is defined "as the highest cultural grouping of people and the broadest level of cultural identity people have short of that which distinguishes humans from other species." Under this definition, civilization implies refined set of behavior and practices as compared to primitive and backward. In the past, Victorian authors have made use of the term "civilization" to justify the continuance of imperialism and the use of clichés such as the "white man's burden."

Civilizations can also be classified according to the description of their major characteristic:

- 1) religion, e.g., Christian, Hebrew, Islamic
- 2) geography e.g., Egyptian, Mesopotamian
- 3) ethnicity, e.g., Chinese, Greek, Mayan, Viking, Anglo-Saxon
- 4) empire, e.g., Roman, British, American
- 5) temporal, e.g., pre-Inca, Paleolithic
- 6) technology, e.g., Bronze Age, Iron Age, information age
- 7) combinational

Successful civilizations are those that enhance the security and quality of life of its member societies, provide an environment where arts and sciences can flourish; trade, commerce, and industry can progress; institutions can develop and reach maturity and sophistication and have the capacity to adapt to the changing circumstances and adopt new practices to ensure their longevity.

The Process of Decline and Decay

Societies, states, empires, and civilizations are organic entities associated with distinct life cycle phases such as birth, development, maturity, senility, decline, possible rebirth, or final extinction. The decline and decay is a complex phenomenon that is dependent on external and internal factors.

The longevity of these entities depends upon their ability to cope with the changing external and internal factors. The external factors include military disaster at the hands of belligerent opponents who have learned the ropes and have managed to expose and exploit the weak points. For example, the once-mighty Roman Empire became stagnant and succumbed to the barbarians, and the Abbasids after becoming ossified and corrupt fell victim to the border tribes, the Buyids and later the Seljuqs.

External factors may also include deterioration of the physical environment, floods, draughts, earthquakes, failure of crops, epidemics, etc. Internal factors may include incompetent or extravagant rulers and elite, repression and exploitation, lawlessness, civil wars, social fragmentation and knowledge stagnation, economic decline, etc.

To guard against decay, societies, states, empires, and civilizations need to be dynamic and flexible. For ensuring their longevity, they need to learn, adapt, and adopt good practices in a timely manner. Entities that are rigid, inflexible, or content to rest on their laurels can easily succumb to disruptive forces and suffer catastrophic collapse.

Muslim Societies and Muslim Civilization

A Muslim society implies that the majority of the population is living under Islamic rules. Examples of Muslim societies could include Turkic, Andalusian, Maghreb, Indic, etc. A Muslim state will have a nominally Muslim ruling authority and include both Muslim and non-Muslim societies. Examples of Muslim states could include the Umayyad, Abbasid, Seljuq, Ottoman, etc. In some cases, the terms "Muslim state" and "society" can be used interchangeably.

While decline and decay has afflicted Muslim societies and states due to the lack of unity, coherency, knowledge level, administrative efficiency, or military prowess, we cannot say the same for Muslim culture and civilization, which is still intact. Muslim civilization and culture remains in the hearts and minds of the people all over the world.

As we shall see in chapter 2, there have been several peaks and troughs in the history of Muslim states and societies. But what is actually meant by decline or progress in the context of a Muslim society? Is it the same as for the industrial or postindustrial societies whose principles are mainly based on economic well-being and growth, democratic norms, unrestricted freedom of speech and association, and complete partitioning between the roles of the organized religion and that of the government, or is it something else?

We have to set the guidelines for measuring the decline and progress of a Muslim society that also takes into account its particular faith-based requirements. Investigation of Muslim societies between the seventh and sixteenth centuries² of the Common (Christian) Era (first to the tenth centuries of the Hijra calendar) is the main focus of this book.

Purpose and Scope

This book aims to catalogue the realities and the reasons that were instrumental in the decline and fall of Muslim societies over the past millennium and more. It is mainly about diagnostics but it also attempts to provide broad based solutions to the major problems.

² All dates used in this volume are according to the Common or Christian Era (CE), also abbreviated AD (Anno Domini). The reason for using the CE as against the Hijra (H) for specifying dates is due to the wider usage of the former and for improved comprehension. Conversion between the Hijra and CE years can be calculated using (Ref: GH)

$$CE = 622 + 32/33 * H, \text{ and } H = 33/32 * (CE - 622)$$

This book is retrospective in the sense that it examines the shortcomings in their historical context and introspective as regards their effect in the present times.

Many attempts have been made in the past to discover and document the reasons of the decline (Refs: LB, DM, HS, NAH, TE, AS). The reasons have been generally put in the form of list with explanations. This document attempts to categorize the reasons into interrelated "factors" that have influenced the Muslim societies.

The advantage of this approach is to help understand the relationship between the factors and to help in the prioritization of factors that should be the focus of attention for speedy revival and amelioration of Muslim societies. Such an approach facilitates a graphical representation that is amenable for modeling and analytical analysis. Once the factors and their interactions are fully understood and analyzed, we can then embark upon plans for a road map for the resurgence and revival of Muslim societies in the near, medium, and long term.

It may be noted that detailed solutions are not provided in this document. Only what need to be corrected. This is deliberate. The aim is to achieve clarity and completeness in the analysis of a highly complex and deep-rooted problem. It is also not desired for the analysis process to be clouded by ad hoc, off-the-cuff, or half-baked solutions. This study can be used for determining the preconditions that can lead to the design of plans for starting the gradual revival and resurgence of Muslim states and societies.

Results of This Work

The results of this work can be used in the following ways:

1. To provide insight into the macro- and microlevel reasons contributing to the rise of Muslim civilization as a primal global power and its implosion into weak statelets.
2. To help devise policies for ameliorating the situation, howsoever small initially, and preparing for a consistent approach toward renaissance and revival.
3. As a starting point for the analysis of post-1517 period, possessing totally different and complex set of internal and external conditions: inertia in Muslim lands, concurrent with European Renaissance in all fields of knowledge that brought about exponential growth in their industrial capacity, military power, and reach.
4. To help in the identification of weaknesses and strengths in the post-1517 period relating to
 - the blossoming, the maturity, and the breakup of the sultanates: the Ottomans of Turkey, the Safavids of Iran, and the Mughals of India followed by weakening and eventual folding of nominal caliphate of the Abbasids in 1517

- the wholesale partitioning into nonfunctional and impotent states that became ripe target for colonization by powerful adversaries
 - the turbulent postcolonization period in which the Muslim states find themselves to be ill equipped for catching up with the rest of the world
5. The deficiencies identified for all the periods will be reviewed to see which ones have managed to filter through and emerge unscathed to the present times. These 'endemic' deficiencies merit the greatest attention and priority when designing a process for improvement.

The Point of Reference: The Righteous Caliphs

The Muslim society was in state of flux during the time of the Righteous Caliphs (*Khilafat-i-Rashida*) due to the sudden realization that it no longer had recourse to the guidance of the Holy Prophet and that they had to assume full responsibility of running the state in accordance with the spirit of his message. This was an onerous task for them as they had to quickly develop all the instruments and structures needed for running the Islamic state, to assuage the people in overcoming the sense of loss, and to bring them under one banner.

The *Khilafat-i-Rashida* period is characterized by three unique features:

1. Democratic Election

The caliphs were democratically elected by a *Shura* (consultative) committee through consensus or through a majority vote followed by universal acclamation and allegiance (*Baiyah*). Although the *Shura* was of limited size, since great care was taken on the credentials, honesty, and piety (*Taqwa*) of its members, their decisions were generally regarded to be above board and nonpartisan.

2. Service

The foremost consideration for the caliphs was the service to the community and the promulgation of Allah's commands. They considered themselves as the trustees of the treasury and not its owners. They did not aspire for glory or obtain wealth. For the survival of their family, they drew the standard poverty-line stipend or none at all if they could rely upon their own savings.

3. Unity of Leadership

The caliphs combined the responsibilities for both the spiritual and the temporal leadership. This type of leadership required steadfast piety, deep knowledge of the faith, ironclad character, and unshakable sense of justice, qualities which these caliphs amply possessed. Caliph Omar defined the function of the caliph, "Our duty is to extol good deeds and to discourage the happening of evil deeds.

To establish the order of Allah among the people, near and far, without caring on whom the punishment may fall.”

It was for the first and most probably the last time in human history that rulers were endowed with such characteristics. The rightly guided caliphs operating under the umbrella of faith exceeded the qualities of “philosopher king” stated by Plato in his book *The Republic*. According to him, the ideal ruler for a virtuous city-state must be a (practicing) philosopher to be just and effective (Ref: RB). These qualities were reaffirmed by the philosopher al-Farabi:

- love of justice
- truthfulness
- quickness to learn
- soundness of body and limb
- eloquence
- nobility of character
- temperance
- courage

During the Khilafat-i-Rashida, the setting up of the “edifice of faith” according to the Quran and Sunnah was the paramount consideration. They laid down principles of governance for the nascent Islamic state that were backed by concrete examples of the highest level of selfless service and just rule. The rightly guided caliphs were different from other Muslim rulers due to the fact they did not belong to any dynasty.

They were elevated to the office not due to the accident of their birth or because of the force of their arms or the cleverness of their intrigues but solely based on their piety and personal ability. The Righteous Caliphs provided the “gold standard” for the leader of a Muslim state in terms of selfless service, sacrifice, integrity, and justice against which the succeeding rulers would be judged. It is a tragedy that their shining example was not emulated except in rare cases e.g. Umayyad caliph Omar II, AD 717-20 and the Abbasid al Muhtadi, AD 869-70.

This period is also marked by the assassinations of the last three caliphs. In part, it was due to the lack of security measures they felt they needed or deserved. They considered themselves as common members of the Ummah with no special privileges but with the added burden to be just rulers under the tenets of the faith. While Caliph Omar’s assassination was a result of enemy action, most disturbing were the assassinations of Caliphs Osman and Ali, which polarized the community into everlasting civil strife. Mired in controversies, the major causes of this civil strife can be traced to personal gain and aggrandizement, tribal jealousies, intrigues, and prejudices on the part of the rebellious elements.

The gentlemanliness of Caliph Osman was misconstrued by the troublemakers as a sign of his weakness, who declared that he would be the last person to raise his arms in anger against them whom he regarded as his brothers in faith. Unchecked and emboldened, they undertook the heinous act of regicide against the successor of the Holy Prophet.

The uprighteousness of Hazrat Ali and his efforts at curbing the raging civil war through arbitration was construed by the ultrarightists as a deviation from the path of Allah. Such course was unpardonable in their opinion that deserved extreme action. This resulted in the assassination of the caliph with tragic consequences.

The net effect of these deplorable activities was in the form of the permanent damage to the unity of the Ummah due to the emergence of interest groups and sects with irreconcilable differences. Subsequent internecine wars dissipated the energies of the rulers and of the populace involving wastage of time, men, and resources. Thus, Muslim states and societies were handicapped as regards achieving their full potential and making impact on the world at large of which they were capable.

Periods of Muslim History

After Khilafat-i-Rashida, Muslim history can be divided into four periods shown in figure 1. Some of these have a slight overlap.

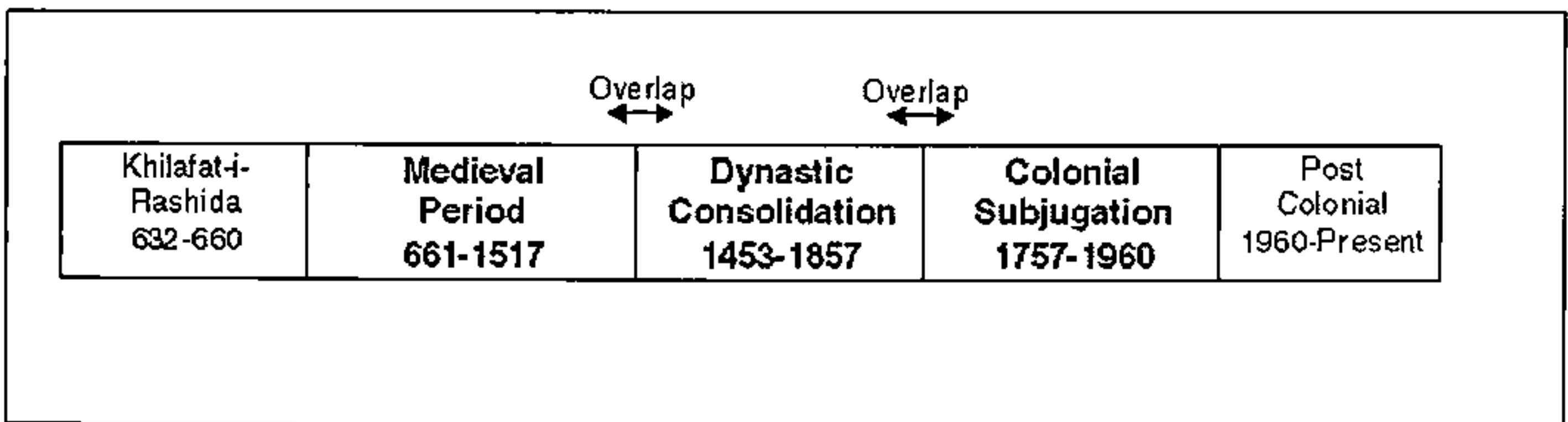


Figure 1: Periods of Study

1. Medieval, 661-1517

The medieval period includes the following regimes:

- The Umayyad of Damascus whose rule lasted between AD 661 and 750 before their defeat at the hands of the Abbasids.
- The Umayyad of Cordoba who ruled over a large part of Spain between AD 756 and 1031. In early eighth century Muslims also held cities in southwest France

- including Narbonne, Carcassonne, and Bordeaux. Due to internal decay and misgovernance, their rule ended in 1031 with the emergence of numerous (and weak) statelets, Taaifas, also known as party kingdoms.
- The Almoravid (AD 1091-1172) and Almohad (AD 1120-1269) dynasties that made fairly successful but not long-lasting campaigns to reverse the onslaught of the Christian forces in Spain.
 - The Nasirids (AD 1230-1492) of Granada who managed to retain a tiny foothold in mainland Spain, until their final ouster by the combined forces of Ferdinand and Isabella, (patrons of Christopher Columbus, who was also present and witnessed the surrender).
 - The long reign of the Abbasids in Baghdad from AD 750 to 1258, when the city was destroyed and their rule extinguished by the Mongols under Halaku.
 - The nominal restoration of the Abbasid caliphate in Cairo under the tutelage of the Mamluk dynasty in 1261. Their nominal rule ended in AD 1517 coincident with the defeat of their overlords by the Ottomans.

During this period, the Islamic states and societies reached the zenith of their power in terms of area and population and achieved world-class status in the scholastic and scientific domains.

2. Dynastic Consolidation and Decay, 1453-1857

During this period, the Muslim world was split into three major spheres of influence ruled by dynasties: Ottomans in Turkey, Safavids in Persia, and Mughals in India. According to Professor Kitsikis, these dynasties belonged to the Intermediate Region that provided a bridge between the East and Europe. In general, the main interest of all these dynasties lay more in dynastic preservation than in the promulgation of just rule under Islamic tenets. Of these, the Ottomans and the Mughals consolidated their regimes after defeating their non-Muslim adversaries while the Safavids in the middle were mainly interested in defense against possible incursions by the other two.

Each dynasty had its glory periods after which they went into irrecoverable decay and weakness, falling easy prey to overlordship or colonization by the maritime powers of Europe. The Ottoman rule starting in 1453 reached its zenith during Sulaiman's rule in 1520-1566. After that it entered a period of gradual decay that gained momentum resulting in a series of setbacks, including Vienna in 1529 and 1683, the great naval battle of Lepanto in 1571, Hungary in 1715 at the hands of the resurgent Austro-Hungarian Empire. The dynasty collapsed completely in 1914.

The Safavids starting in 1510 after reaching high level in architecture and beaux arts got corroded by ubiquitous internal conflicts were finally displaced by the Qajar dynasty in 1797 that lasted until 1925. The Mughals in 1526 started with a bang (having introduced the field guns in India) and, having produced awesome specimens of civil works and

architecture, underwent rapid decay after 1707, collapsing completely in 1857 in the face of rising native and English power. The rise and decay pattern for these three dynasties was surprisingly similar.

3. Colonial Subjugation, 1757-1960

The European nations made full use of the post-Renaissance period to set their houses in order and reached unprecedented heights in science, technology, organization, and military prowess. On the other side, there were the Muslim states that were ossified by centuries of neglect in fields of education, industry, organization, and people empowerment and thoroughly worn out because of rampant internecine warfare. It was therefore inevitable for the former not to colonize the latter, which was done with impunity, speed, and minimal expenditure of resources.

The prize beckoning the colonizers was the huge human capital coupled with the agricultural, land, and mineral resources along with the growth of trade and taxes accruing from a captive population. Immediately after the daring voyages of discoveries by the Portuguese, it became fashionable for the European nations to embark on the road toward colonialism. It started with the apparently innocuous trade missions that soon began to delve in and exploit the internecine fissures in these countries. This led to the establishment of standing armies, to warfare that snowballed into straightforward conquests.

India began to be colonized in earnest by Britain after their victory in 1757, North Africa and Egypt by France after 1800, central Asia by Russia after 1800, Middle East proper by Britain and France after 1914, and Indonesia by Dutch after 1824. As a result of that, by 1920s, all Muslim people (barring the weakened Turkey and a weak Afghanistan) were under direct or indirect colonial hegemony.

4. Postcolonial, 1960-Present

This period can be divided into two parts, prior to 9/11/2001 and post 9/11. During the first part, Muslim states began to be freed from the yoke of direct colonization by the European powers just before or after the Second World War. Most of the states that were granted independence have borders that are arbitrarily delineated and are the source of numerous complications to this day. In the majority of the cases, this "independence" turned out to be nominal. In reality, the colonial powers would not let go of their prized possessions so easily especially when these are sitting on valuable natural resources and markets. Whenever the vital interests of the superpowers or the colonial powers were perceived to be at risk, the Muslim states are subjected to all sorts of interference in the areas of governance, politics, economics, industrial development, trade, education, defense, etc. Additional pressure is exerted through sanctions, boycotts, and direct or indirect armed intervention.

After the tragic events of 9/11/2001, the situation changed for the worse for the most of the Muslim countries that had to face overt or covert pressures that further weakened them. The post 9/11 period is extremely intricate because of the fluidity and complex interplay of numerous forces at work. It is too recent and requires multiple volumes to do justice to the subject. It is therefore beyond the scope of this book.

All this is due to the inherent weaknesses and lack of preparedness of the Muslim states that are ill equipped to take on the challenges of the modern age, including free speech, universal franchise, education, economic independence, and self-sufficiency in matters of defense. They do not realize the enormous benefits in these areas that can result from an honest and patriotic approach to put their own houses in order.

Presently, the majority of Muslim states are ruled by oligarchies or the power elite who control and own an undue proportion of their countries' wealth. These rulers are either totally delinked with or have no desire to become aware of the real aspirations of the populace. In all cases, their policies run counter to the will of the people. For as long as possible, they want to push the real issues of the people under the rug using the veneer of economic development. They resort to Orwellian doublespeak. While professing terms like "enlightenment," "liberalism," "justice," "freedom of expression," "real democracy," etc., in reality, they do the exact opposite. Besides being incompetent, they display unbounded arrogance and are not reluctant to resort to medieval cruelty and Byzantine intrigues.

Due to the wide gulf existing between them and the people they rule, the oligarchies feel desperately insecure. It is for this reason they have to be beholden to their former rulers or the current superpower in all matters, including internal control of politics, economic investments, foreign policy, and defense.

This study is aimed at highlighting the problems that these states are currently facing and to suggest a course of action that would be beneficial to them and the world at large.

The Importance of the Medieval Period

Brief features of the Khilafat-i-Rashida period have been described in the previous section. The succeeding epoch, the medieval period, merits detailed consideration as it is during this time that the Muslim societies and states reached their zenith. At the same time, latent deficiencies began to emerge. Allowed to remain unchecked, these had disastrous effects on the well-being and very existence of the states and societies.

The medieval period deserves special attention due to the following reasons:

1. It includes the golden period in terms of the projection of the faith and the codification and maturation of its message as well as its scientific and cultural prowess.

2. It is the only time that Muslim states and societies emerged as global powers with extended reach in that they could take on and get the better of their adversaries.
3. It contained the seeds for its decay, which left uncontrolled for too long became overwhelming.
4. The strengths and weaknesses of this period had an enormous impact on the succeeding periods.

The medieval period "imported" certain strengths (goodness factors) and weaknesses (deficiency factors) from the preceding epochs and exported a new set of strengths and weaknesses to the successor epochs as shown in figure 2.

It is obvious that the exported strengths will not be identical to the imported strengths, likewise for the weaknesses. These differences can be attributed to the internal operations or policies implemented during the medieval period. Such activities can result in

- Intensification, diminishment or elimination of certain incoming strengths or weaknesses. The intensification or diminution will be due to the changed priorities of the succeeding period. Certain weaknesses or strengths that were valid in the preceding epoch could become irrelevant in the current epoch due to changed environment and therefore could be eliminated.
- Creation of new types of strengths or weaknesses.

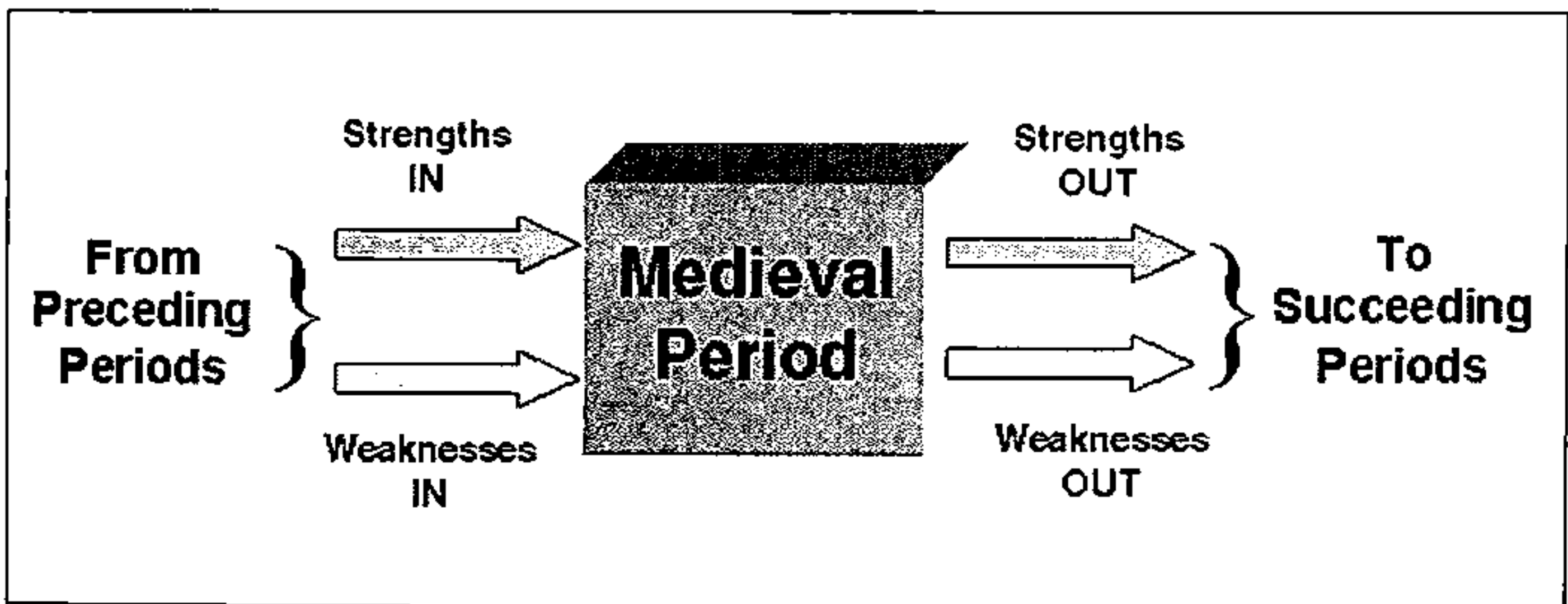


Figure 2: Medieval Period: Flow of Strengths and Weaknesses

The main strengths that were imported into the medieval period were faith-related, i.e., the message of the Quran, the sayings (*Hadis*), practice, and behavior (*Sunnah*) of the Holy Prophet. Other strengths included the unity of purpose within the Ummah, love and devotion to the faith, the embryonic governance structure of the Muslim state set up by the Righteous Caliphs along with the vast territories and their people brought within the fold of Islam. To this, we have to add the innate qualities of the Arab people, that of self-reliance, patience, bravery, resoluteness, and sacrifice in face of dire situations, hospitality, eloquence, etc.

The weaknesses that were imported were mainly of personal and communal nature: excessive tribal affiliation and loyalties, personal pride and rigidity, lack of knowledge, primitive infrastructure, etc. These weaknesses raised their ugly head at various times during the medieval period, causing fissures and internecine warfare that weakened the state and impeded the progress of the Muslim society.

The Process of Analysis

The object of this study is to identify the strengths and weaknesses that were exported by the medieval period to the succeeding epochs. It may be noted that there are certain generic deficiencies common to all epochs including the present. Such deficiencies have simply managed to pass unchanged through the intervening epochs to reach us. These deficiencies should be targeted for immediate removal or mitigation if we are desirous of ameliorating our present condition.

In order to do this, we have to take stock of and analyze all the internal activities that were taking place during the medieval period. For such a complex problem we have to take a world-view (*Weltanschauung*) approach under which all possibly relevant factors need to be identified and considered. We have to collect and analyze historical data relating to achievements in various fields of knowledge, military exploits, and political matters.

Fortunately, vast amount of data is available under these headings. These data are distributed over multiple sources and therefore have to be aggregated into a compact form. The result is a comprehensive collection that draws on many references (Refs: EG, HE, HM, HP, HPM, MC, MW, and WJ). To facilitate analysis, the data are sorted chronologically and collated into fifty-year time slots.

Achievements in indicators such as theology, sciences, and infrastructure are shown in appendix 3. Information about the victories, defeats, and internal rebellions is given in appendix 4. Political matters including the dynastic and ruler information are catalogued in appendix 5.

These data will be processed and subjected to quantitative and statistical analysis to ascertain trends and relationships between the indicators. This analysis will help us to identify major areas of deficiencies and strengths as well as to provide clues regarding their probable causes. The deficiency areas will be refined into a number of lower-level qualitative deficiency factors that are easy to understand.

Chapters 4 to 8 provide a detailed description and historical reasoning for justifying the inclusion of the deficiency factors. Finally, it will enable us to determine with a measure of confidence a particular set of deficiencies that are of high priority and therefore should be the focus of our attention. More importantly, this set of deficiencies can be used as the starting point for amelioration and the revival of Muslim societies.

Central Theme of the Faith

Prior to the start of the analysis process, to determine the levels of progress or of decline of a society, we need to define these terms in the Islamic context. The measurement criteria for Muslim societies whether or not they are progressing or declining have to be different from those for the secular societies, which emphasize material wealth believing it to be the fountainhead for human happiness.

For Islamic societies, the spiritual aspect and the attainment of piety (*Taqwa*) is of paramount importance and is believed to provide inner peace, fulfilment, and contentment for its adherents. It is not therefore possible to eliminate or put the spiritual aspect on the back burner while pursuing material advancement.

In order to gauge the attainment level of an Islamic society, it is necessary to revisit the basic message and theme of the faith.

The central theme of Islamic faith aims at submission to God's directives and for the continuous enhancement of *Taqwa* at the personal, community, and humankind levels. The aim is the attainment of salvation at the personal level and the betterment of humankind.

The embodiment of the revealed message is Quran. Believing, understanding, and abiding by the Quranic message enables the human being to be exposed to the reality of the Creator and enables him/her to follow the right path toward salvation.

The Subject it deals with is 'Man'. It discusses those aspects of his life that lead either to his real success or to his failure.

The Central Theme that runs throughout the Quran is the exposition of the Reality and the invitation to the Right Way based on it. It declares that Reality is the same that was revealed by Allah Himself to Adam at the time of his appointment as vicegerent, and to all the messengers after him, and the Right Way is the same that was taught by all the messengers.

The Aim and Object of the revelations is to invite Man to that Right Way and to present clearly the Guidance that he has lost because of his negligence or perverted by his wickedness. (Ref: MAA, Introduction to *The Meaning of the Holy Quran*)

Taqwa may be regarded as an integration of thoughts and implementation of ideals including striving for unity, attainment of justice and truth, and search for real knowledge (in all shapes or forms) so that the human beings can act as responsible and accountable vicegerents of God on earth. This requires the establishment of "just society" that draws its

inspiration from the divine law. It can be said that universal and unceasing application of “justice” in all aspects of life is the objective and *raison d’etre* of the message of Islam.

The five pillars of the Islamic faith—belief, prayers, fasting, zakat, and hajj—fall under the categories of *Imaniyaat* (beliefs) and *Ibadaat* (rituals). According to Imam Ghazali (Ref: AGI), the five pillars of faith can only be regarded as “necessary” but not the “sufficient” set of activities for achieving elevated levels of Taqwa. For building the complete **edifice of faith**, so that a Muslim society can dwell in peace in it, there is another set of activities that need to be believed and acted upon in real honesty, at the individual and the community levels at all times. These relate to areas such as *Akhlaqiyaat* (behavioral), *Muamalaat* (dealings), and *Muashirat* (social coherence).

The imperatives of categories require the acquisition and use of knowledge in all its forms: spiritual (e.g., Quran and Hadis), metaphysical (e.g., philosophy), and secular (e.g., scientific, technological, social, arts and crafts). The faith requires an integrated approach in the field of knowledge. One cannot forsake one form or aspect of knowledge at the expense of other without causing incalculable harm at the component (individual or group) level or to the Muslim society at large.

Chapter 2

What Is Progress or Decline?

The progressiveness or backwardness of any society at a given point in time is determinable in relative terms. It can be compared to other contemporary societies or to its own state in the past. Measurement of progressiveness or backwardness is commonly done in material terms, such as economy, security, or knowledge level.

For a Muslim society, although economic progress is not frowned upon, it is placed lower on the order of priorities as compared to other factors, e.g., the acquisition of knowledge or the provision of justice. There is, however, an overriding consideration, spiritual, i.e., striving for piety and for obedience to Allah's commands. There is also a tradition (Hadis) of the Holy Prophet quoted by Tirmizi (appendix 1) that lists the symptoms of a society that is in a pathological state of decline. These outwardly symptoms point to an underlying malaise in the society but can also provide a useful starting point for corrective actions for stopping or reversing the onset of decline.

How to Determine the Level of Progress/Decline

To obtain a level of the status of a society at a given point of time, we can make use of a number of **indicators** that can be either subjective or quantifiable.

Subjective indicators are nontangible and are open to interpretation. These include, for instance, the extent to which rights of God (*Haquq ul Allah*) and rights of the created beings (*Haquq ul Ibad*) are being observed by the society including the supremacy of justice, the quality of governance by the rulers, happiness of the populace, etc.

Quantifiable indicators such as the number of achievements in sciences, arts, literature, etc., are available as historical data. Through a process of analysis and aggregation, this historical data can be used for ascertaining quantitatively the degree of progressiveness or degeneracy. Here the main objective is to identify the actual periods in Muslim history where peaks or troughs were reached. This will allow us to designate with confidence those periods that are worthy of being designated as the "Golden Age" or its converse, the "Abyss."

In order to do this, we have to collect historical data about as many quantifiable indicators as possible. This data is massive and is distributed over many sources, which vary in terms of depth and breadth of the information they carry. In this document, an attempt has been made to build a comprehensive repository of data drawn from varied sources.

Collection of Data

There are many standard sources providing historical data about achievements of Muslim scholars: (Refs: DS, EG, HP, WJ, MJ) and others. Historical data about military matters, including external campaigns and civil strife, has been obtained from (Refs: EG, WJ). Data about the dynasties and rulers can provide information about political fragmentation and stability has been obtained from (Refs: BCE, MR, and HP).

Recourse to a wide range of sources has resulted in a very comprehensive set of data comprising more than two thousand data points which provided a vast canvas on which to base meaningful analysis and interpretation.

For ease in tabulation and analysis, the collection has been partitioned according to the subject matter as follows:

- Appendix 3a: Achievements in Theology and Philosophy
- Appendix 3b: Achievements in Exact Sciences
- Appendix 3c: Achievements in Medical Sciences
- Appendix 3d: Achievements in Arts, Literature, and Social Sciences
- Appendix 3e: Achievements in Infrastructure and Institutional Development
- Appendix 4: Military Matters
- Appendix 5: Dynasties and Rulers
- Appendix 6: Summary Information

Each table is arranged chronologically, and data is encapsulated in fifty-year time slots. The baseline is AD 661, the start of the Umayyad period. The granularity of the time slot is chosen to be fifty years as it provides a good trade-off between the size and accuracy in data analysis. A twenty-five-year time slot would have resulted in a large number of rows in each table making analysis more difficult. On the other hand, a one-hundred-year time slot would have made the transitioning between adjacent slots to be too sharp. Each table entry includes a brief textual description about scholars and their achievements, military events, or information about dynasties and rulers occurring within that fifty-year time period.

Subjective Indicators

Subjective indicators such as the strength of belief and faith or the degree of adherence to Islamic practices are abstract. These are based on interpretation and opinion and therefore

cannot be expressed in numerical terms presently. The nearest quantifiable measure we can have is to conduct opinion surveys of the experts in the field asking them to assign relative values (scale of 1 to 5) to each subjective indicator.

1. Belief and Practice (*Haquq ul Allah*)

This indicator determines the strength of the belief (Taqwa) and the adherence to tenets of the faith by the majority of people of the society.

2. Unity of Purpose (*Wahdat*)

This indicator measures the degree of unity of purpose and deed existing within the social, religious, and political groups. It has been a constant feature of the Muslim society (and it still is) that disagreements and difference of opinions are not compartmentalized but are allowed to degenerate into disunity. This has been allowed to simmer for a long time and was and is still being exploited by the external elements to the detriment of the community.

3. Justice and Governance

This indicator relates to the preservation of population's life and liberty, equality before law, freedom from arbitrary rule, redress of cruelties, prevention of misgovernance and wastage of resources.

4. Social Rights (*Haquq ul Ibad*)

This indicator relates to how well *Haquq ul Ibad*, i.e., the rights of all created beings (including the environment), have been observed at the individual, community, and the society levels. Nonobservance of these rights has a deleterious effect upon the well-being of individuals, the interpersonal relationships, and the rise in social inequities and grievances.

5. Projection of Faith (*Tabligh*)

This indicator measures the extent to which the faith has been projected to nonbelievers and the increase in the number of the believers.

Quantifiable Indicators of Achievements

The values of these indicators will be used to determine which particular period in the Muslim history can be regarded as being the most progressive. The measure or count will be determined for each of the following indicators for each fifty-year time slot and an overall quantitative measure obtained for that time slot. The methodology of computation is given in appendix 2.

The data in appendices 3, 4, and 5 pertaining to achievements in philosophy, sciences, arts, institutional and infrastructural development, and events relating to military campaigns

and dynasties has been plotted in figures 3 to 11. Representation of plotted data is in the form of continuous variation rather than discrete. The smoothed³ form has a better visual appeal in terms of transitioning between each fifty-year time slot.

1. Advances in Knowledge: Theology and Philosophy

This indicator measures the capabilities/deficiencies in the areas of knowledge management, including knowledge creation, acquisition, adaptation, utilization, and dissemination toward the betterment of an individual and the society. It is based on the weighted count of achievements in philosophy, religious sciences including Tafsir, Hadis, and Fiqh. Figure 3 shows the graph of achievements in this area. The graph also shows developments in Sufism relating to metaphysics, divine love, and Gnostics, a tradition that has strong underpinning in Muslim philosophy. The achievement profile of Sufism more or less depicts the same overall trend.

Only the salient features of this graph will be discussed here. For details refer to appendix 3a, where all the achievements are listed in chronological order and packaged in fifty-year slots.

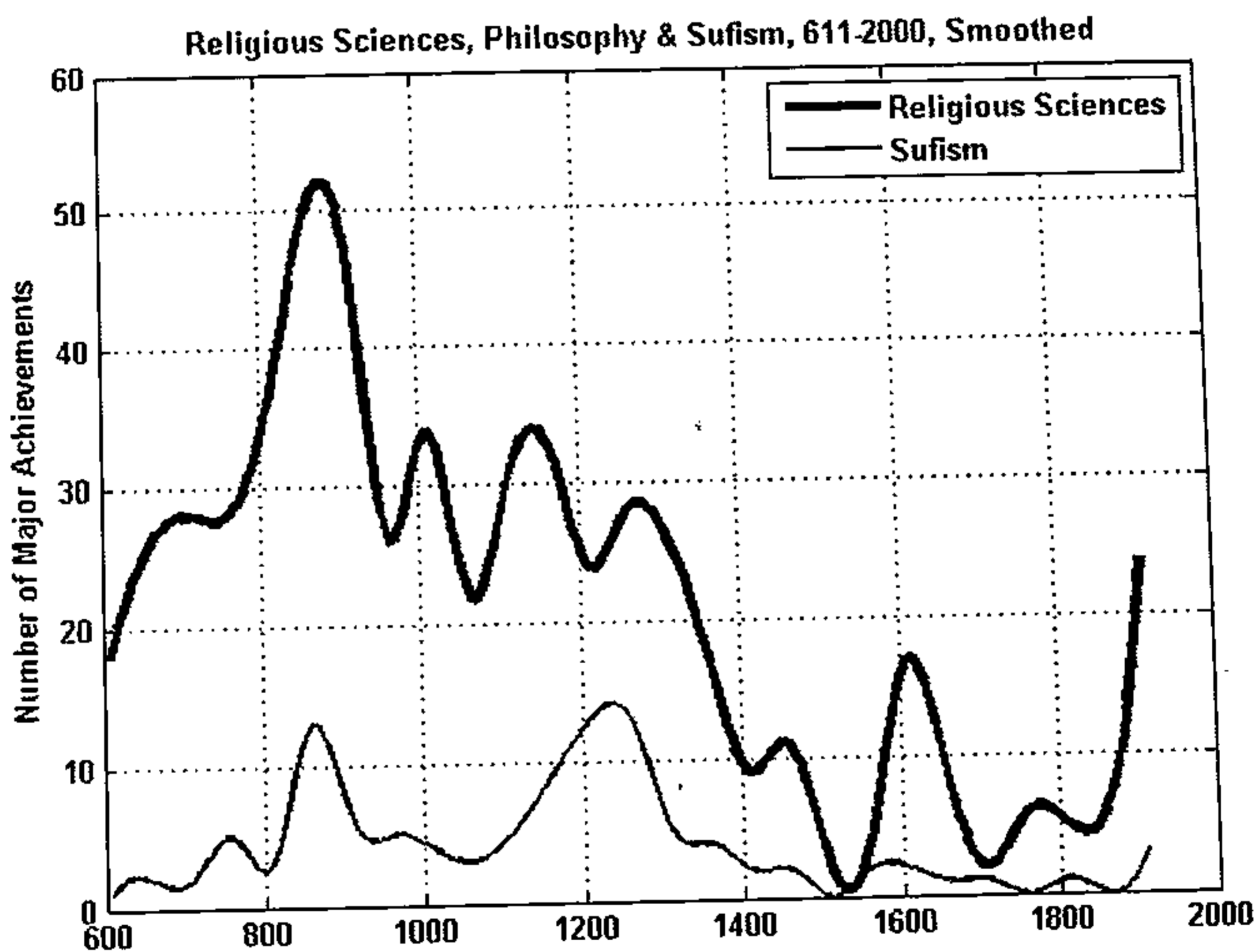


Figure 3: Advances in Religious Sciences and Philosophy

³ The cubic spline method is used for data smoothing. It also compensates for minor errors due to missing or extraneous data. Waveform representation will also allow discovery of periodic cycles through Fourier analysis.

After the demise of the Holy Prophet in AD 632, scholars realized the need for interpretation of the Quran in the light of his sayings (*Hadis*) and practice (*Sunnah*). There was a need to provide legal opinion (*fatwas*) on various matters. The early upsurge in activity around AD 700 indicates the start of argumentative (dialectical) activities by groups such as Jabarites, Qadirites, Kharajis, Mutazila, Murjiites, etc. Around AD 800, work started in earnest on the codification of laws and regulations (*Fiqh*).

The compilation of *Hadis* was an enormous task that was taken up almost simultaneously around AD 900 by scholars such as Bukhari and others. The foundations of Sufism were laid on formal basis after this. The interval AD 1000-1160 marks the emergence of Muslim philosophy along the schools of thought including the Ashaari. This period marked outstanding contributions by the philosophers, including al-Kindi, Ibn Sina (Avicenna), al-Ghazali, Ibn Rushd (Averroes), and many others.

After this time, original work in philosophy scaled down, replaced by studies in Gnostics and Sufism. Around AD 1300, Ibn Taymiyyah of the Hanbali school promoted the ultraorthodox cause that was to be the precursor to the Wahhabi movement. There are three main reasons why the achievements in philosophy and religious sciences began tapering off after AD 1300:

- **Erroneous belief that the work was complete**

There was a huge effort by Muslim scholars in the writing of *Tafsir*, the compilation of *Hadis* and *fatwas*, and the codification of *Fiqh*. These works were considered to have attained perfection in terms of their thoroughness, reliability, and authenticity. As a result, in the tenth century, it was declared that there was hardly any need to do *Ijtihad*, i.e., using legal reasoning to add on or extrapolate what was not contained in the four traditional schools of jurisprudence. The doors of *Ijtihad* were said to be "closed," and the scholars began to promote the concept of *Taqleed*, i.e., acceptance of a religious ruling in matters of worship and personal affairs from someone regarded as a higher religious authority. Deviation from the classic line was considered as *Bidaa* (innovation). All this resulted in the slackening of philosophical activity, and due consideration was not given to solutions to new issues.

- **Disenchantment with the nonproductive debates**

After the end of *Khilafat-i-Rashida*, many scholars emerged who wanted to study the Quran, the word of Allah, in a systematic manner (*Kalam*). They wanted to employ dialectical argumentation and logical reasoning to explain the tenets and beliefs of the faith. Out of this grew numerous schools of thoughts including the Mutazila movement (see appendix 3a for details). The Abbasid

caliphs al-Mamun, al-Mustasim, and al-Wathiq (AD 813-842) adopted this as the official tenet. In spite of the fact that the Mutazila principles were based on rational thinking, they resorted to irrational means, i.e., inquisition (*Mihnah*), to enforce its acceptance.

In the tenth century, the Ashaari movement started as a counter to tone down the extremist views of Mutazila, which was welcomed equally by the rulers and the people. The ultraorthodox schools, Maliki and Hanbali, however, were not receptive to the application of rationalism in matters of faith.

Fierce debates arose between these and other schools. The Almoravid dynasty of Spain belonging to the Maliki school even burnt books by Ashaari scholars including those of Imam Ghazali. The ferocity of these debates and use of unjust means by the supposed paragons of rationalism for getting their viewpoints accepted disenchanted the people.

This drove them toward Sufism and mysticism in order to seek inner peace and to satisfy their intellectual curiosity.

- **Escape into mysticism**

After the destruction by Mongols of the caliphate in Baghdad in AD 1250 and the continued success of Reconquista following the battle of Las Navas, Spain, in AD 1212, there was a severe setback to cultural activities. People had no time or inclination to indulge in esoteric activities including philosophy. Survival became the main consideration, and escape into mysticism and poetry became the norm. Developments were made in the field of Gnostics resulting in the emergence of many different *Tariqahs* (ways) of Sufism. Notable contributors to Sufism including Rabiya Basri, Abdul Qadir Jilani, Shahab ud din Suhrawardi, and Mevlana Jalal ud din Rumi were able to package Islamic teachings in a form that was appealing to both Muslims and non-Muslims.

2. Advances in Knowledge: Sciences, Exact and Medical

This indicator relates to the number of achievements in exact sciences including mathematics, physics, chemistry, astronomy, optics, and mechanical technology and medical sciences including surgery, medicine, botany, etc. Chronological tabulation of these achievements is given in appendices 3b and 3c and plotted in figure 4.

During the seventh and the eighth centuries, the uppermost consideration for the rulers was the consolidation of the state through the establishment of the administrative and legal infrastructures that could be achieved through codification of laws. The state saw

no need to sponsor scholars to work in the nontraditional fields of knowledge. Thus, accomplishments by scientists like Jabir bin Hayyan and al-Khwarizmi were due to their personal initiative and curiosity. Work in astronomy and trigonometry was motivated by the requirements of the daily prayer schedule and determining the direction of the qibla (first Jerusalem and later Mecca).

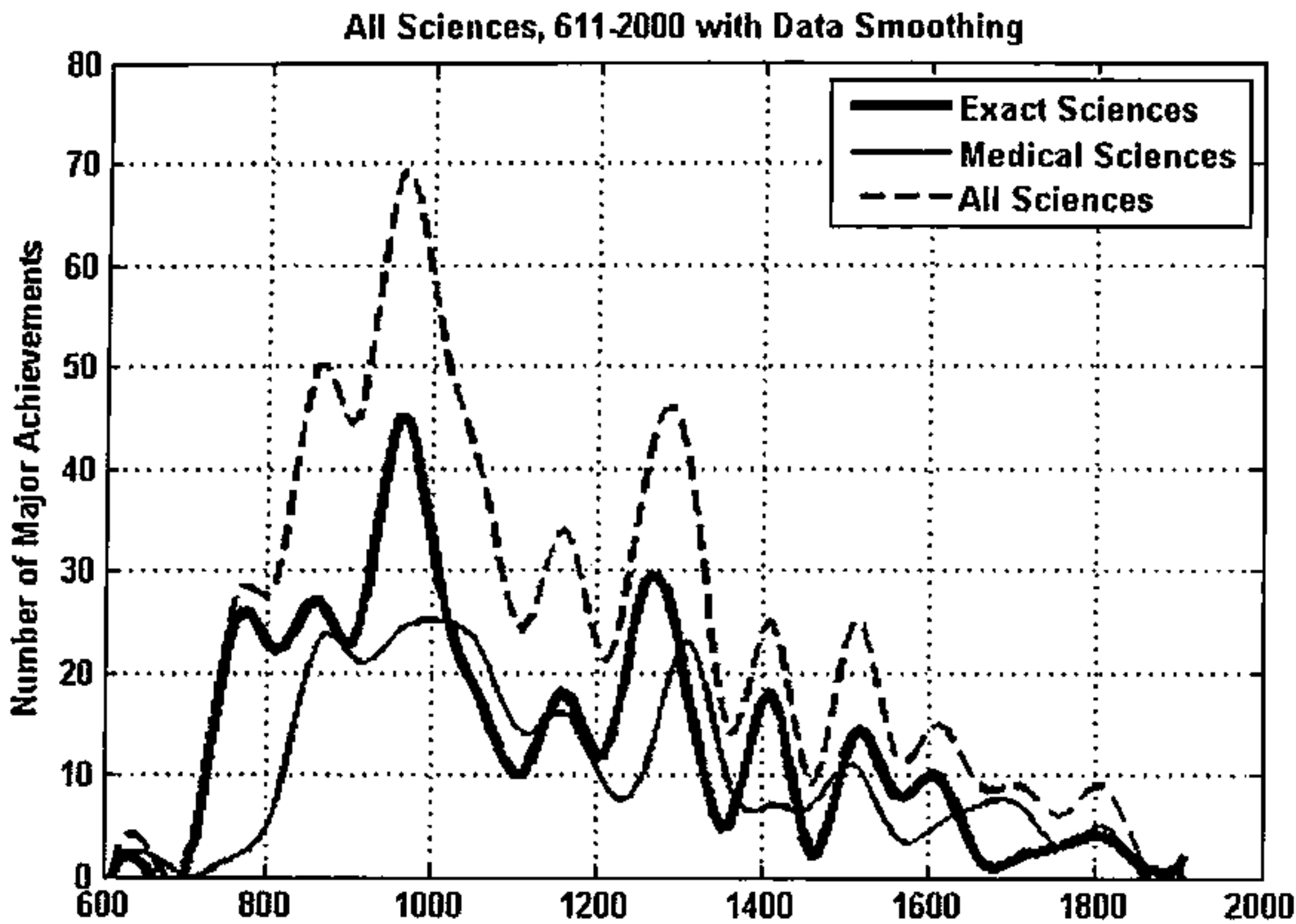


Figure 4: Advances in Sciences: Exact and Medical

Muslim scientists started to produce original work in the exact science (chemistry, physics, astronomy, and mathematics) around AD 750. Conquests in distant land brought exposure to Greek, Indian, and Chinese sources of knowledge and technology. Chinese papermaking technology was reproduced successfully in Baghdad around AD 800.

Development of Institutions

Being a sagacious ruler, the Abbasid Caliph Mamun pioneered the establishment and support of infrastructure for natural sciences. Around AD 833, he set up the House of Wisdom (*Bait ul Hikmah*) in Baghdad and the House of Books (*Bait ul Kutub*) in Basra, the purpose being to translate Greek manuscripts into Arabic in order to make a basis for indigenous advancement of knowledge. More libraries were set up in different cities—Baghdad, Mosul, Ray, Cordoba, etc. The Cairo library possessed eighteen thousand volumes by AD 940, and Cordoba under Umayyad al-Hakem in AD 961 became the world's largest with four hundred thousand volumes. Al-Azhar University, Cairo, was founded by Fatimid ruler Jawaher in AD 972.

Another institution, Dar ul Hikmah, was set up in Cairo by the Fatimid ruler al-Hakim I in AD 1005. There were new observatories: in Hamadan where Ibn Sina worked around 1037 and in Toledo where al-Zarqali worked around 1050. A large institution, Madrassa Nizamiyah, to rival al-Azhar, was set up in 1065 by Seljuq sultan Alp Arslan in Baghdad, where al-Ghazali taught. Alongside with their Christian counterparts, Muslim scholars continued to work in Toledo even after its loss to Alfonso VI of Castile in 1082. Maimonides (*Abu Imran Musa bin Maimun Ibn Abdallah*), a great Jewish scholar and physician, studied in Cordoba and University of Fez in the midtwelfth century (finally settling in Cairo and working for Ayyubid sultan Saladin).

As seen in figure 4, most of the work by Muslim scientists was produced during the ninth to the eleventh century period, the peak occurring in the tenth century around AD 960. An abbreviated list of outstanding scientists includes al-Khwarizmi, Ibn Turk, Ibn Kamil, and Ibn Karaji in algebra; al-Awari, Banu Musa, Hunayn ibn Ishaq, al-Nayrizi, al-Kamil, Thabit bin Qurrah, al-Kuhi, al-Karaji, al-Sijzi, and Ibn Haitham in geometry; al-Hasid, al-Afghani, al-Kindi, al-Battani, and Ibn Iraq in plane and spherical trigonometry.

In astronomy, there were many contributors including al-Maun, Abu Masher, al-Hashmi, Ibn Yunus, Ibn Labban, al-Zarqali, and Ibn Tufayl. There were significant developments in physics, especially optics and in technology related to timekeeping, construction of automata and siege engines, etc. Muslim scientists made many contributions in the field of medicine, surgery, pharmacy, ophthalmology, botany, and agriculture.

After AD 1300, there was a rapid decline in the number of achievements. This can be attributed to the following causes:

Destruction of Institutions

Continued internecine warfare, intrigues, and treason corroded and fragmented many Muslim states. By the end of the eleventh century, due to their economic and military weakness, they became sitting ducks for attacks. Toledo was lost to Alfonso VI of Castile in 1085. The Kalbids statelets of Sicily were conquered by Roger II in 1091. The formidable Crusader army destroyed Jerusalem in 1099 with unimaginable loss of life. Accompanying this was the total destruction of institutions and infrastructure. The magnificent library of Toledo and the institutions in Sicily were lost to the Muslims forever with obvious consequences. Although Jerusalem was reconquered by Sultan Saladin in AD 1187, the damage to its Muslim institutions was irrecoverable.

Most devastating was the Mongol attack on Baghdad by Halaku in 1258. It resulted in whole-scale brutal massacre of the two million inhabitants; killing of Caliph al-Mutasim; complete destruction of laboratories, magnificent libraries, and priceless manuscripts; and the killing of most of the scholars. This was an abominable crime

against humanity. Mongol devastation continued in Persia, Iraq, and central Asia; and most institutions were also destroyed.

The march of the Christian forces in Spain continued unabated. The fall of Cordoba (1236), Valencia (1238), and Seville (1248) exacerbated the loss to the Muslim Ummah. In 1492, the one remaining Muslim statelet of Granada was finally extinguished by the combined armies of Castile and Navarro, and the Muslim institutions were taken over or destroyed.

Destruction of Institutions of Knowledge and Libraries

Destruction of institutions usually included the abhorrent practice of the whole-scale burning of books and priceless (and beautiful) manuscripts deemed to be subversive and hence dangerous by the conquerors.

The Muslim world had to face this tragedy several times in its history, not only due to enemy action but also because of intolerance and extreme disagreement between different schools of thought.

Due to Internal Disagreement

1. In Cordoba, Spain, in 1013 when Berber tribesmen destroyed most of the four-hundred-thousand-volume library established by Umayyad caliph Hakam II (961-976).

Abd-Er-Rahman's son, Hakam II was a real bookworm. He sent agents throughout the East to buy rare manuscripts and gathered together 400 000 books. (The destruction of most of his library in 1013 by the Berbers was a serious blow to Arab literature.⁵)

Later in the tenth century, Prime Minister Almanzor placated the Muslim theologians by publicly burning the proscribed books on their list. He sacked a number of monasteries and carried away their wealth. (Ref: LPS)

2. Almoravids of Spain (AD 1062-1147) who ascribed to the conservative Maliki school were vehemently against all forms of mysticism. They destroyed books written by the great Ashaari scholar and philosopher al-Ghazali that they found in libraries of Cordoba.
3. Almohads (AD 1130-1269) who succeeded Almoravids in Spain sympathized with the Ashaari school. Disagreeing with the rational approach and the recourse to Aristotelian logic propounded by the Cordovan scholar Ibn Rushd (Averroes), they burnt his books.

Due to External Action

The outcome of conquests by external enemies besides causing monumental loss of life and property was extremely tragic as far as the destruction of libraries and knowledge infrastructure was concerned. It happened in the city of Tripoli, Lebanon (AD 1104), after its siege and fall during the First Crusade. Baghdad had to face this tragedy at least four times: twice in medieval age and twice during our times. In AD 1258, its institutions were ravaged by Halaku's hordes along with the total destruction of its world-class libraries. In AD 1401, Timur gave specific orders for the destruction of all its monuments and institutions. He selfishly carried off the artisans along with the artistic and cultural artifacts to Samarqand, his capital city. Each time, Baghdad's tragedy had a profound effect on the rest of the Muslim world.

In 1991, massive aerial bombardment by the Americans led to closure and disruption of its institutions. The subsequent weakening of the overall economy of the country hampered their normal functions. The effect of the ground invasion of 2003 by the Americans was much more severe. It resulted in the decimation of Baghdad's museums and libraries along with their priceless contents, handwritten books, manuscripts, and artifacts.

In Granada, Spain, destruction of libraries happened after its fall in AD 1492. It may also have happened for cities in Persia and central Asia (such as Ray, Neshapur, Merv, etc.) that were unlucky to come under the swath of the Mongol hordes during the thirteenth century. Some references related to these tragic episodes are given below:

Tripoli, Lebanon (First Crusade, 1204)

The city (Tripoli) fell on July 12, 1204, and was sacked by the crusaders. One hundred thousand volumes of the Dar-el-Ilm library were deemed "impious" and burned. (Ref: WTR)

Baghdad (Halaku, 1258)

The destruction of Baghdad, therefore, meant the extinction of learning. With it were destroyed the great libraries and unique treasures of art, philosophy, and science, accumulated through hundreds of years. Books were consumed to ashes or thrown into the river. Mosques, colleges, hospitals, and palaces were put to fire. The awful nature of the cataclysm which completely blocked the advancement of knowledge in Muslim lands. (Ref: MPH)

The Grand Library of Baghdad, containing countless precious historical documents and books on subjects ranging from medicine to astronomy, was

destroyed. Survivors said that the waters of the Tigris ran black with ink from the enormous quantities of books flung into the river. (Ref: WBG)

Baghdad (Timur, 1401)

After the capture of the city in June 1401, 20,000 of its citizens were massacred. Timur ordered that every soldier should return with at least two severed human heads to show him (many warriors were so scared they killed prisoners captured earlier in the campaign just to ensure they had heads to present to Timur). (Ref: WTM)

Timur spared the lives of scholars and the Ulema and presented them with green cloaks. Amongst these, the astronomers he sent to his observatory in Samarqand where his son Shah Rukh and grandson Ulugh Beg, were to cause a great efflorescence of science in central Asia. He demolished and burnt down all the buildings in Baghdad, except for the Masjids and his horsemen rode around to flatten the ground. (Ref: GTM)

Granada (Forces of Aragon and Castile, 1492)

There exist two versions about the total number of books destroyed in Granada after its surrender by Abdullah (Boabdil). The libraries were destroyed under the orders of Bishop Tomas de Torquemada, official inquisitor of Ferdinand and Isabella. His name has become a byword for intolerance, cruelty, and torture. By both versions the loss of the storehouse of knowledge was huge and irreplaceable.

Book-burning exploits of Torquemada, the bonfire of 80,000 valuable Arabic manuscripts, lighted up in the square of Granada (1492) by order of Cardinal Ximenes. (Ref: WGR)

More than one million volumes of Muslim works on science, arts, philosophy and culture were burnt in the public square of Vivarrambla in Granada. (Ref: WCH)

In 1499, Cardinal Francisco Ximenes of Toledo, Spain asked the religious leaders of Alcala to surrender all their books; five thousand were brought to him, many splendidly adorned with gold and silver and priceless illuminations. These were all burnt publicly, save a few on medicine, (Ref: LHC).

There was just one instance where even after the conquest no libraries were destroyed. It happened in 1085, after the Almoravids were defeated by Alfonso VI (the wise) of Leon-Castile. Under his rule, the magnificent library of Toledo was kept intact where Muslim scholars continued to work alongside with their European counterparts. Later,

Toledo emerged as a center of learning contributing to European Renaissance that began in the fourteenth century.

During our times, Baghdad has also the unfortunate distinction of being subjected twice to destruction and occupation by the American forces. This resulted in irreparable damage to institutions, libraries, museums, and the cultural heritage of Muslims.

Baghdad (Forces of the United States, 1991)

Baghdad suffered heavy air attacks at the start of the First Gulf War (1991). Besides destruction of private property, its electrical and water systems were mostly destroyed. Educational institutions were not directly targeted, but other government buildings suffered severe damage.

Baghdad (Forces of the United States, 2003)

One million books, 10 million documents and 14,000 archaeological artifacts have been lost in the US-led invasion and subsequent occupation of Iraq—the biggest cultural disaster since the descendants of Genghis Khan destroyed Baghdad in 1258. (Ref: HMQ)

Comparison between the Events of 1258 and 2003

Closer scrutiny of the attacks of 1258 and 2003 on Baghdad yields many similarities:

Both the attacks were made by the superpower of the day against a very weak yet rich state. The purported reasons to justify the war (*casus belli*) were very similar: threatening their allies and posing danger to their security.

In both cases, Iraq was under the control of military oligarchies imbued with illusions of glory. There existed a gulf between the rulers and the ruled that was papered over by a combination of tyranny and a system of selective rewards.

In both cases, there ensued massive loss of civilian life and state structures for which no responsibility was assumed by the conquerors.

Both attacks resulted wide-scale deprivation that had deep impact on the psyche of the population.

In absolute terms, almost an equal number of books, manuscripts, and artifacts were lost. In 1258, the destruction was deliberate. In 2003, it was probably due

to lack of control or oversight, and the onus of responsibility was brushed aside. In relative terms though, the losses of 1258 were much more devastating.

These similarities lead us to view events of 2003 as déjà vu, a rerun of the earlier episodes. Despite the passage of so many centuries and the supposed inviolability of nation-states under the Treaty of Westphalia of 1648, supplemented by numerous declarations about the equality of nations, the overriding factor that has remained unchanged to this date is the vulnerability of the weak vis-à-vis the powerful. This natural law is inviolable and remained true in 2003 as it was in 1258. In such a situation, the Muslim states that were attacked cannot be regarded as blameless.

Coming back to the discussion at hand, after 1258, Baghdad ceased to be the storehouse of knowledge, its momentum lost and its development potential extinguished. The focus of political power shifted elsewhere, and the city deteriorated and became defenseless. When the British forces entered the city in 1917, it was but an empty shell devoid of all its former glory.

“Our armies do not come into your cities and lands as conquerors or enemies but as liberators,” British major general Sir Stanley Maude said upon reaching Baghdad on March 11, 1917 (Ref: HBG).

Here General Maude’s use of the term “liberation” appears to be Orwellian doublespeak. *Nineteen Eighty-Four*, a futuristic novel by George Orwell published in 1949 (Ref: WGO), provides a poignant example of doublespeak in which the purported slogans of the party ruling the country in reality mean the exact opposite:

War is peace.

Freedom is slavery.

Ignorance is strength.

Such liberation comes with a price where in addition to subjugation of the populace may include the decommissioning of the existing cultural and educational infrastructure. Under such a situation, not only does it take a huge effort and expense to undo or overhaul the existing systems but it also involves a steep learning curve on the part of the populace ill prepared for the drastic change. Moreover, valuable time and energies are needed just to reach the status quo ante.

It is evident that the results of these efforts by the occupying power were at best superficial and in no way helpful for the occupied people to achieve self-reliance or for independently reaching the take-off stage. If it were so, then in due course of time the occupied lands would have become powerful enough to deter future recurrence of similar occupations.

At this time, we cannot tell for sure the relationship between the consequences of the events of 1258 and the repetitions of 1917 and 2003: whether the former, in one form or the other, paved the way for the latter. The question remains whether there is a causal linkage between them or whether these are totally disjoint. The strength of any possible linkage cannot be determined exactly as the blame for the apparent shortcomings cannot be laid entirely at the door of the occupying power. The occupied people must share the blame for their backwardness. Another issue that remains unresolved presently is the long-term impact of the events of 2003 upon the educational, social, psychological and economic matters upon the Muslim states and people of the region.

Cessation of Support for Educational Institutions

All Muslim people and the states were in the state of shock because of major reverses on the three fronts: Spain after Reconquista was lost to Muslims forever; the Levant where Crusader kingdoms became entrenched in Jerusalem, Antioch, and Acre; and Baghdad where Mongol Ilkhanids rule started after the annihilation of Abbasids. The fourth front against the Byzantines was also heating up.

The most important considerations of the time were

- 1) to improve the economy of the state and to preserve whatever was left in the Muslim empire,
- 2) to extricate people from the morass of fear and anguish, and
- 3) to plan for pushing back the enemies, Crusaders, Byzantines, and the Mongols and recovering from them the territories lost so far.

These were daunting tasks considering that more than two million lives had been lost, armies crumbled, knowledge institutions and infrastructure relating to economy, taxation, trade, agriculture, etc., totally destroyed.

The problems were compounded due to the existence of competing dynasties, the Mamluks, Fatimids, Ayyubids, and Seljuqs and their lack of cooperation in tackling enormous challenges. The most important issues were ensuring the defense of the state, provision of necessities of life, and the raising of people's morale. Under these circumstances, it is not surprising that revival of educational institutions (except Madrassas that were painstakingly revived by the mullahs) was way down on the list of priorities.

Fortunately, under the command of outstanding generals, the armies were trained and reorganized. This resulted in immediate results. Jerusalem was recovered by Saladin in AD 1187. Crusaders were finally expelled from the Levant in AD 1291. Mongols were decisively beaten by Mamluk commanders Baybars and Qutuz at Ain Jalut in AD 1260. Osman I made deep inroads against the Byzantines by AD 1301.

Another positive event that happened was the conversion of the Mongol rulers to Islam: Berke, competitor of Halaku, in 1261; Mubarak Shah, great-grandson of Genghis, in 1266; and Ahmad Tegudar, grandson of Halaku, in 1282. They and their progeny became standard-bearers of the faith and acted as a bulwark against further onslaughts by their heathen kinsmen.

During these times, militarism became order of the day and became the most sought-after profession. Pursuit of careers in the scientific field did not hold that much promise to the young people of the day. In the face of lack of state support, aspiring scientists, if any, did not have the means or the expertise to pull themselves up by their own bootstraps. Shortage of teachers forced the madrassas to regress to the teaching of the basic rituals of the faith, leaving the educational system to be unable to cope with the changing requirements.

Nondevelopment of Educational Institutions under the Dynastic Rule

In the aftermath of this destruction, Muslim people went into throes of anguish and shock. It would take several generations just to recover to the status quo ante. Catching up with the rest of world would require superhuman effort over many centuries. This catastrophe could not have come at a worst time when the Muslim world stymied by its handicap had no answer for the rapid progress in Europe. By this time, having set the internal house in order, all European powers, especially maritime, were at the threshold of the age of Renaissance that would propel them to new heights of glory.

The consequences of these events were very grave. There was onset of an ever-increasing gap between the Muslim world and Europe. Dynastic consolidation under the Ottomans, Safavids, and Mughals in the Muslim world afforded a brief respite. Newer centers of Muslim culture and knowledge—Istanbul, Cairo, Tehran, and Delhi—that emerged in the place of Baghdad had to start from ground up and could not regain the lost momentum in the scientific field prior to the onset of their own decay. The process of decay in the educational and technical fields continued unabated.

The Ottoman, Safavid, and Mughal dynasties were founded on militarism; they had built-in averseness to scholarship and education. All they wanted was to bask in the glories of their victories and to perpetuate their rule through military dominance. Their rulers were interested in glorifying their reigns through works of art and architectural monuments rather than the economic or educational uplift of the populace.

Muslim rulers or their officials did not have the sagacity to resurrect, utilize, or ensure the longevity of universities of the pre-Islamic times. The Sassanian Academy of Gondeshapur, Persia, served for some time after the Muslim conquest; but it fell out of use after the tenth century. The Byzantine university of Magnaura, Constantinople, was never resurrected

after its demise in the fourteenth century. The same happened in the case of the Buddhist and Hindu universities of India, e.g., Taxila, Nalanda, and Banaras, that were never brought into play by the various dynasties: Ghaznavids to the Mughals. The pace of growth of the universities in the Muslim world and Europe is shown in figure 25.

Muslim states were ruled under the whims of a single overlord who had the power of life and death and whose word was the ultimate law. These states also lacked sound administrative structures and institutions especially universities and trade guilds. It may be noted that the first university under the Ottomans, the Istanbul Technical University, came as late as 1773. The Safavids of Persia and the Mughals of India remained content with establishing elementary madrassas that were attached to the mosques and seminaries. They regarded the provision of education not as a state necessity but as an act of charity.

Figure 4 shows the lack of progress in sciences during the dynastic period from end of the fourteenth to the beginning of the nineteenth centuries. Compared to the medieval era, developments in the field of science, medicine, and even philosophy are insignificant.

On the other hand, as a result of the Renaissance, European achievements surpassed those of the Muslims during the latter half of the sixteenth century. The cross-over occurred after 1550. After that, while Muslim world's achievements decayed rapidly, European achievements literally took off after 1600s and continued with an ever-increasing pace during the succeeding centuries. It became a case of 'no contest'. During the first half of the 20th century the cumulative number of achievements in science and technology by the West exceeded 400.

The failure on the part of the Ottoman, Safavid, and Mughal dynasties is truly unconscionable considering the vast amount of resources and the talented people they could muster in strengthening their states and ensuring their own survival.

Engaged in the pursuit of conquests, glory, and pleasure, these rulers could not fathom the extent and the seriousness of the scientific and technological gap separating them from the Europeans. Figure 5 eloquently illustrates this vast gap. While Muslim lands went in to a steep decline after 1300, at the same time in Europe, the seeds of the magnificent Renaissance were being laid which owed a lot to the previous achievements by the Muslims.

European developments in science and technology were facilitated not only by culture of scholarship but also by an enlightened leadership that granted them freedom of expression, thought, and deed. This resulted in the flurry of achievements that grew (and is still growing) at an exponential scale.

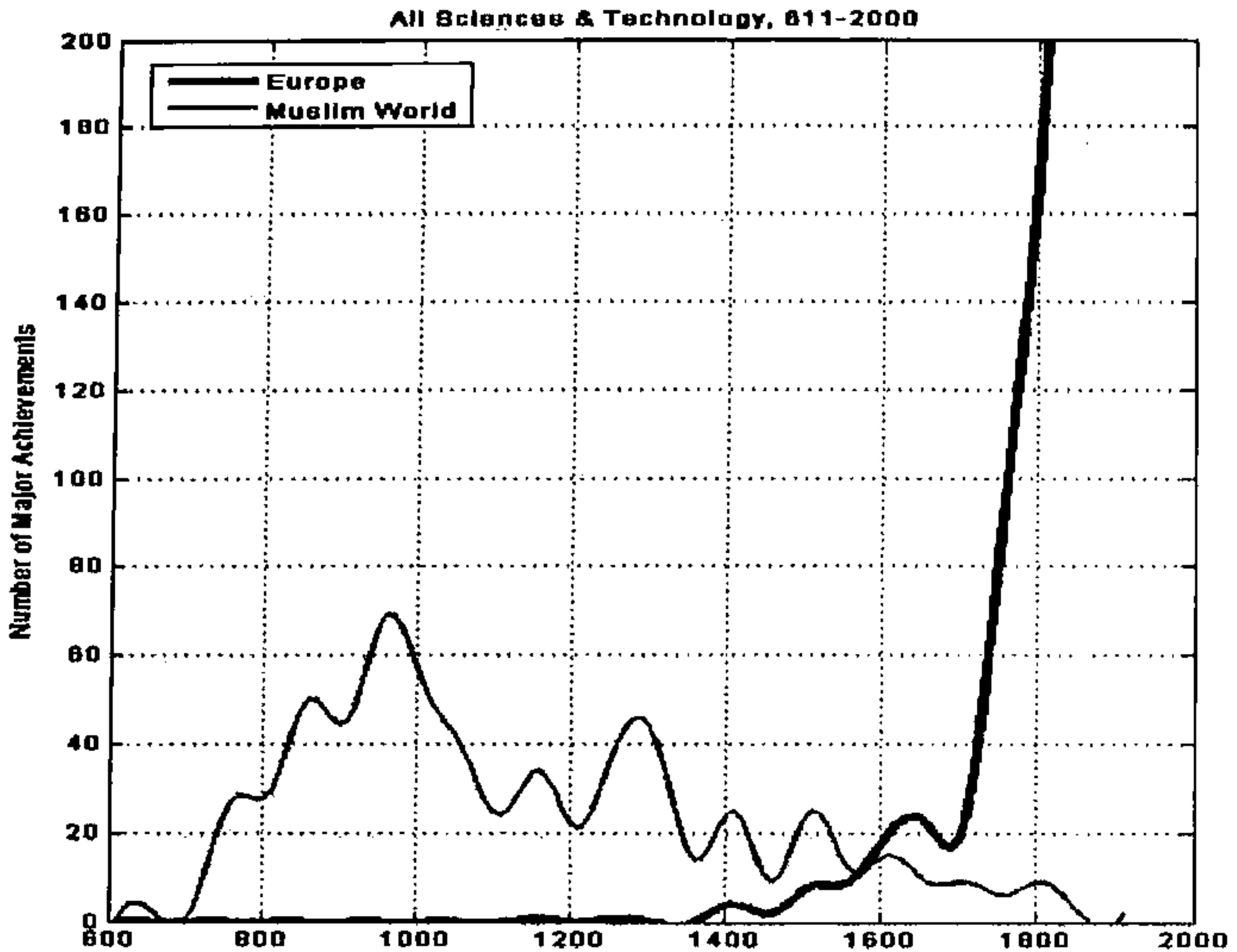


Figure 5: Achievements in Science and Technology: Europe vs. Muslim World

What is unconscionable is the gross negligence and failure of the rulers of the Ottoman, Safavid, and Mughal dynasties from 1500s to 1700s in supporting science and technology and the institutions of higher learning. No doubt, this oversight had a deleterious effect on their realms and states. They were bewildered on seeing being outclassed by the growing military and economic superiority of the adversary against which they had no long-term plan or strategy. Due to these factors, these dynastic states went into rapid decline and collapse in less than two hundred years. Their impotence left the door ajar for the now-empowered maritime powers of Europe to walk in unchallenged.

Three Intriguing Issues

There are three important issues that need to be answered:

Why did the Muslim states allow themselves become so weak and defenseless in the first place so as to repeatedly invite aggression and colonization by the external forces? Apparently, the fault lies squarely with the Muslim states, the rulers, and the people for this predicament.

From the middle of the early eighteenth century onward, what motivated the European and Western powers to colonize, to become, and to continue as overlords of most of the Muslim world?

Will the Muslim states learn from their past mistakes and take steps to set their houses to order, or will they submissively follow what is dictated to them by the power(s) that matter?

These are some of the intriguing issues for which exact answers are hard to come by. Attempt has been made to come up with answers to the first question in chapters 4 to 8. Answers to the second and third questions are outside the range and scope of this book.

3. Advances in Knowledge: Arts and Social Subjects

Advances in arts and social subjects provide good indicators for society's sophistication and maturity. This knowledge area includes artistic subjects such as literature, poetry, music, recitation, and architecture along with social subjects such as history, sociology, economics, as well as beaux arts (paintings, calligraphy, illuminated texts, etc.). Chronological tabulation of these achievements is given in appendix 3d and plotted in figure 6.

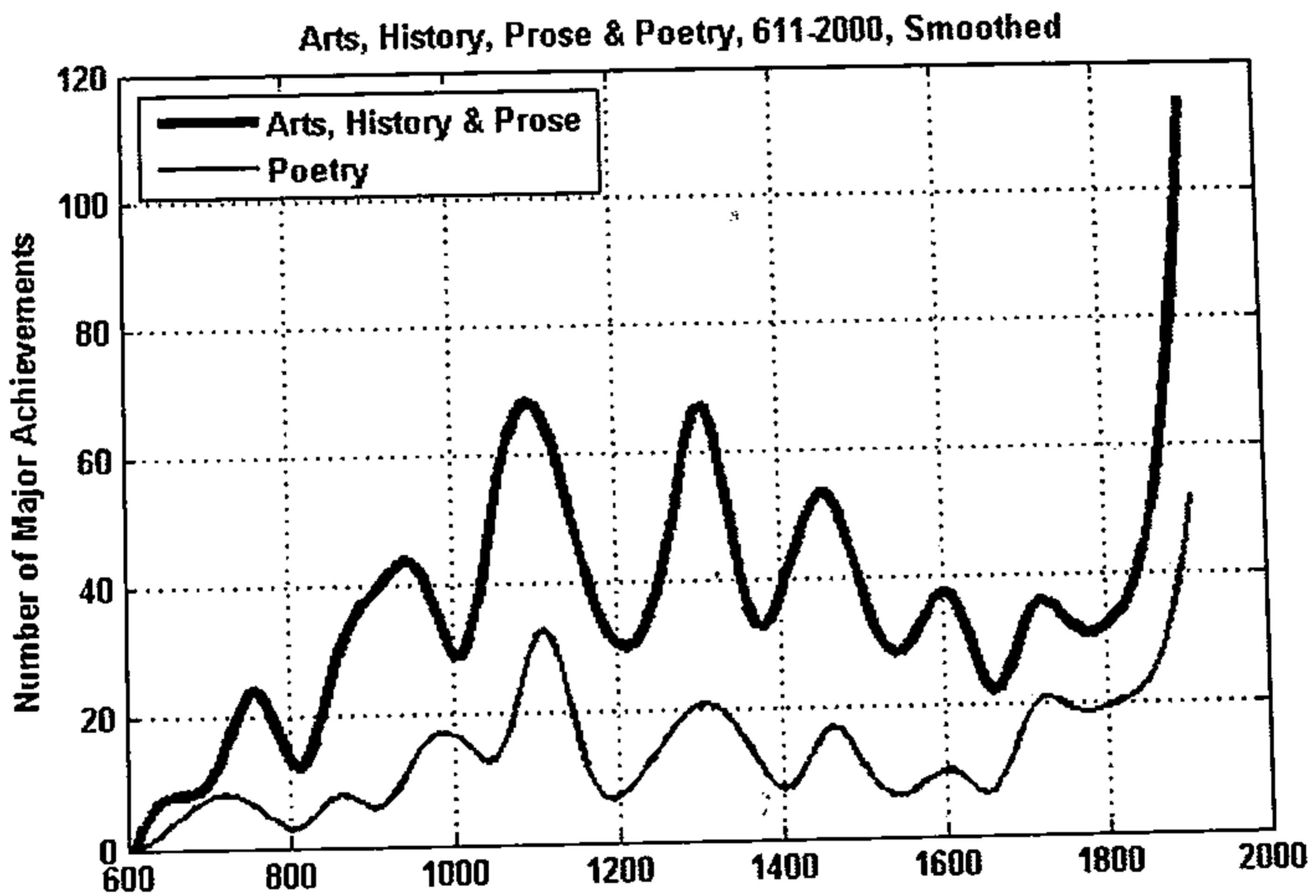


Figure 6: Advances in Arts and Literature

The profile of this plot differs considerably from the achievements in the exact and the medical sciences shown in figure 4. In this case, the rate of increase during the Umayyad and the early Abbasid period (up to AD 1100) is more or less gradual. The most probable cause is that arts being a leisurely activity progresses more in times of relative peace and tranquility. The dip around AD 1000 can be attributed to the turmoil within the Abbasid caliphate. On the other hand, after Spain was split up into independent statelets (*Taifas*), there was renewed literary effort mainly due to the sponsorship of some of the rulers.

The advent of Crusades in the Levant and the transition of rule from the Almoravids to the Almohads in Spain during the eleventh and twelfth centuries coincided with rapid dip in artistic and literary efforts. The coming of power by Seljuqs in Anatolia, Baghdad, and Persia initiated a surge of activity during the thirteenth century.

The aftermath of the destruction of Muslim lands by the Mongols can be associated with a rapid decline of artistic efforts during the fourteenth century. It dipped down to the same level that existed just after the Crusades or that was during the times of Abbasid's turmoil. It was only after the start of the Ottoman, Safavid, and Mughal rule in the sixteenth century that achievements in arts and architecture began to flourish again. This was due to the keen interest and support of these dynastic rulers, presumably for personal reasons, that artistic works of highest calibre and quantity began to be produced.

Poetry as an art form especially panegyric (praise) was patronized by the rulers who appointed poet laureates for this purpose. In India, after the onset of colonialism, poetry came to be used as a medium for protest or provided a convenient escape channel from the harsh realities of life. During the nineteenth and the twentieth centuries, a sharp increase took place in poetry and works of prose because a large number of people used these as an outlet for their emotional and creative energies.

4. Infrastructure Development

Development of infrastructure is needed for the proper functioning of the state, for facilitating trade, and for uplifting the quality of life of the populace. It involves setting up new cities and towns and construction of ports, roads, and public works to facilitate movement of people, goods, as well as the armies. Also included in these areas are the structures and processes necessary for administration and taxation.

Provision and upkeep of public works is the most important component of the infrastructure. This is needed not only to improve the quality of life through the uplift of the educational level but also to improve the economy and to achieve public satisfaction and loyalty. It includes setting up and running of hospitals, libraries, schools, and civic services including those for the provision of potable and irrigation

water. Chronological tabulation of these achievements is given in appendix 3e and plotted in figure 7.

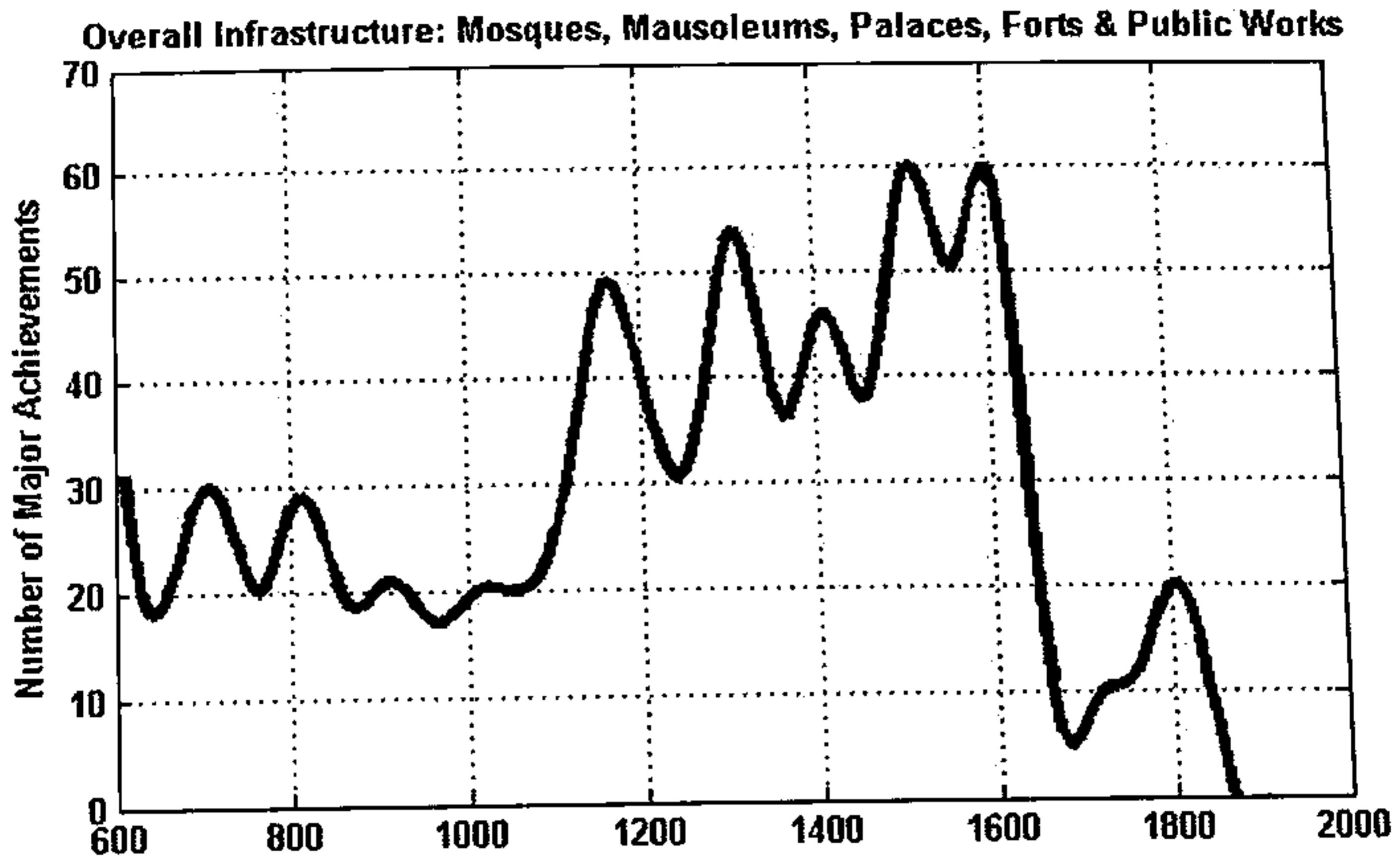


Figure 7: Infrastructure: All Buildings and Public Works

Infrastructure development started at a slow pace during the initial period as the state had little amount of disposable funds in the treasury. This was probably due to the practice that four-fifths of the funds or resources obtained through war booty were distributed immediately among the military. Only one-fifth was left over to cover the administration expenses, the courts, the salaries of the officials including that of the ruler and the infrastructure. Caliph Omar held public interest and welfare to be of paramount importance. He therefore desired that any surplus funds in the treasury should be distributed immediately in order to meet the requirements of the needy. The treasury remained threadbare because it had to make up for the meagre amounts that people were able to set aside for the zakat. There were additional pressures on the treasury during calls for mobilization for expeditions and during the numerous famines and (plague) epidemics.

From eleventh century onward, during the Abbasid period, there was increased flow of funds from the newly conquered lands in the form of land taxes and tribute money from the vassal states. This meant more funds could be released for infrastructure development. Thus, there was a sharp increase in the projects that lasted until the middle of the twelfth century.

The Crusades and the invasion by the Mongols had a deleterious effect on the infrastructure projects during the ensuing period. The number continued to decline during the fourteenth century. There was a noticeable increase attributed to the Seljuq Turks who, after pacifying Anatolia, began to establish mosques, madrassas, and public works during the early part

of the fifteenth century. This effort continued at a feverish pace during the succeeding centuries.

The dynastic era of the Ottomans, Safavids, and Mughals saw huge increase in the number of infrastructure projects. In many cases, these were aimed at extolling or remembering the virtues of the rulers and their families or providing luxury dwellings, for instance, the Taj Mahal and the Red Fort in India, the Topkapi Palace in Turkey, the Hasht Bihisht (Paradise Eight) Palace in Persia.

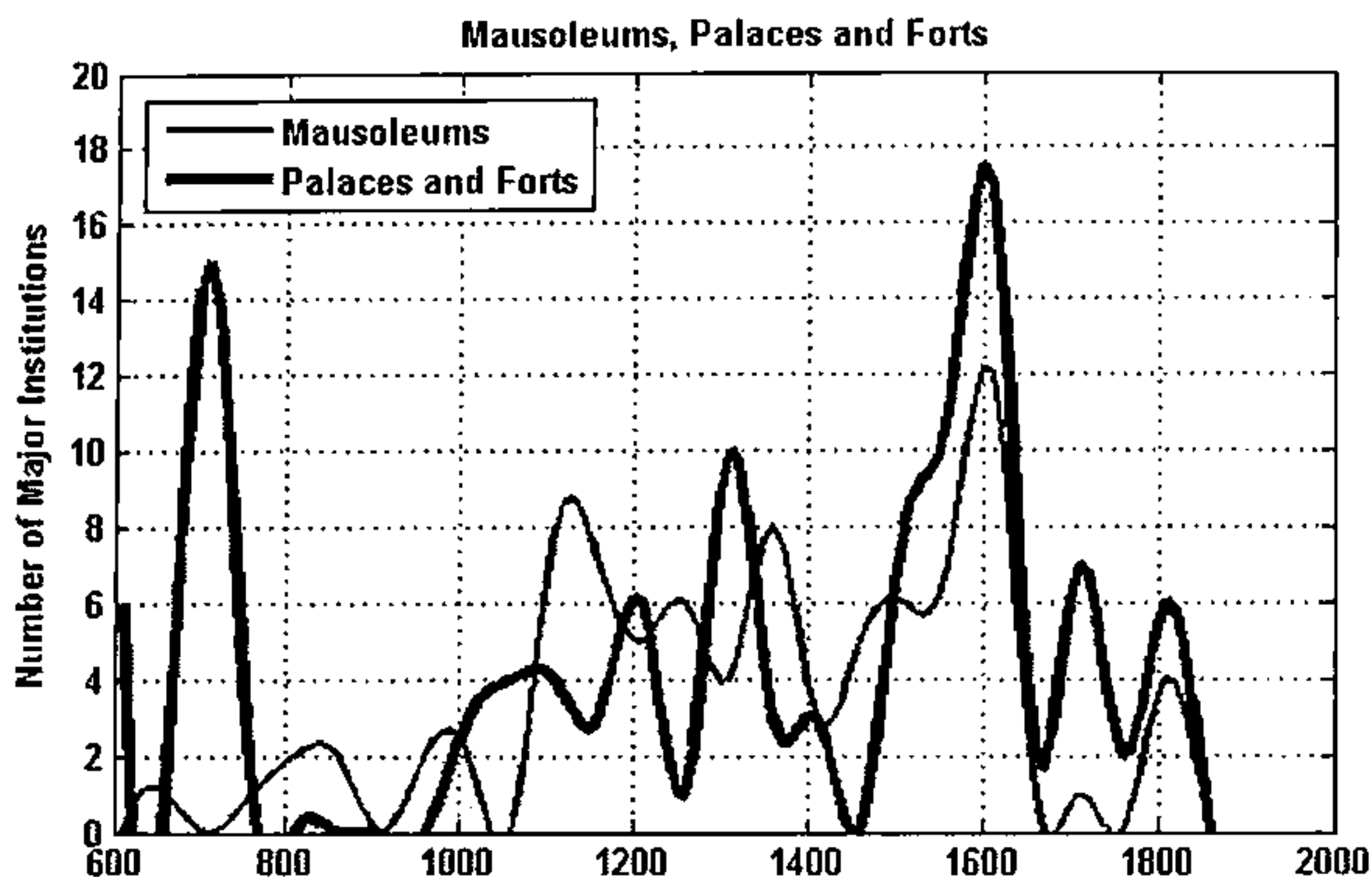


Figure 8: Major Buildings: Mausoleums, Palaces, and Forts

Unfortunately, not all these projects were for public good. These edifices undoubtedly were supreme masterpieces of architecture, but they involved huge expenditure for their construction and furnishing, resources that could be beneficially used elsewhere. These projects were nonproductive and a net drain on the economy. As shown on figure 8, such extravagant projects declined in number around 1700 and came to an abrupt end in the nineteenth century.

The weakening of the center and its fragmentation into numerous substates increased the need for the replication of state structures including the expensive palaces at each of their capitals. Therefore, although number of projects increased in absolute terms, their net impact on public welfare did not increase correspondingly.

Figure 9 shows the establishment of mosques and madrassas. In many cases, madrassas offering basic education were associated with larger mosque projects. Mosque projects continued at a high level but for the dip around 1700 when the dynasties faced shortage of funds and, in the case of the Ottomans, reverses on the battlefield. On the stabilization of

events, mosque construction resumed in the eighteenth century, albeit at a lower level. All three dynasties were negligent in establishing madrassas and institutions of higher learning.

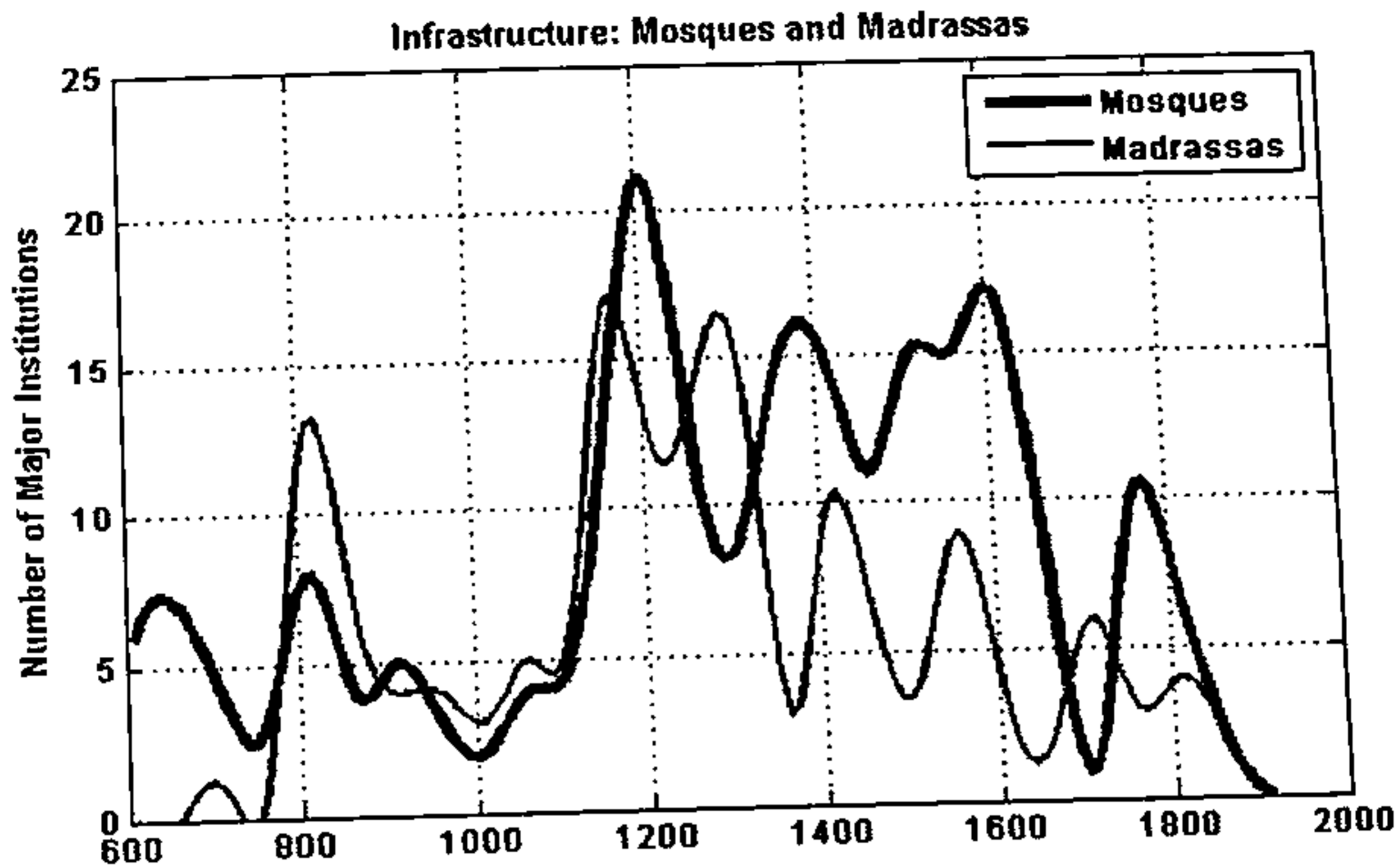


Figure 9: Establishment of Mosques and Madrassas

5. Political Unity

Political unity can be viewed as the converse of political fragmentation that is indicated by the number of dynasties in existence concurrently. The larger this number is, the lesser is the political unity. Fragmentation gives rise to civil wars, splitting up of the revenue, and the wastage of resources. This indicator is based on the count of number of concurrent regimes existing within a fifty-year time slot. Its value has a negative influence when determining the overall state of progress of the society. Data regarding the regimes and rulers is chronologically tabulated in appendix 4.

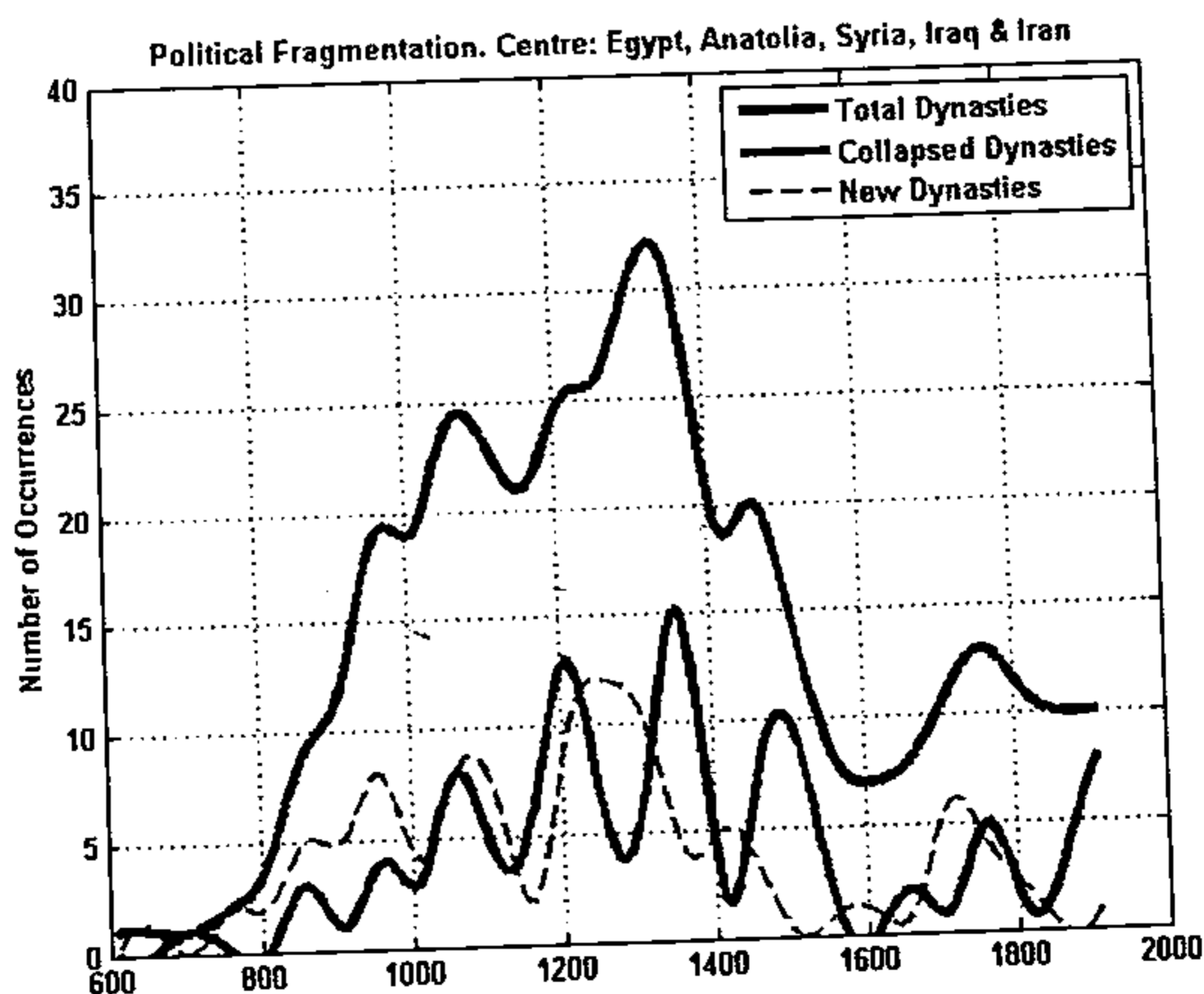


Figure 10: Extent of Political Fragmentation, Central Region

Figure 10 shows the extent of political fragmentation in the central region of the Muslim empire comprising Arabia, Iraq, Iran, Caucasus, Anatolia, Syria, and Egypt. Figure 11 plots the data for the western region that included North Africa and Spain.

These figures show the number of independent regimes or dynasties that existed concurrently during each fifty-year period. These regimes being dynamic entities had a limited life span. Their collapse was due to internal implosion, punitive action by the center, takeover by the adjacent Muslim states, or occupation by external enemies. Also included in the above figure is the number of regimes that met their fate during each fifty-year cycle.

The fragmentation profile for the central region in figure 10 depicts an almost constant increase until the middle of the fourteenth century. After this consolidation took place in Anatolia under the Ottomans that reduced the total number of concurrent regimes. Many independent regimes collapsed in the early thirteenth century due to the Mongol conquests and takeover by the Seljuqs. Same thing happened in the fourteenth century due to Ottoman consolidation shown by the dip in the curve around 1600.

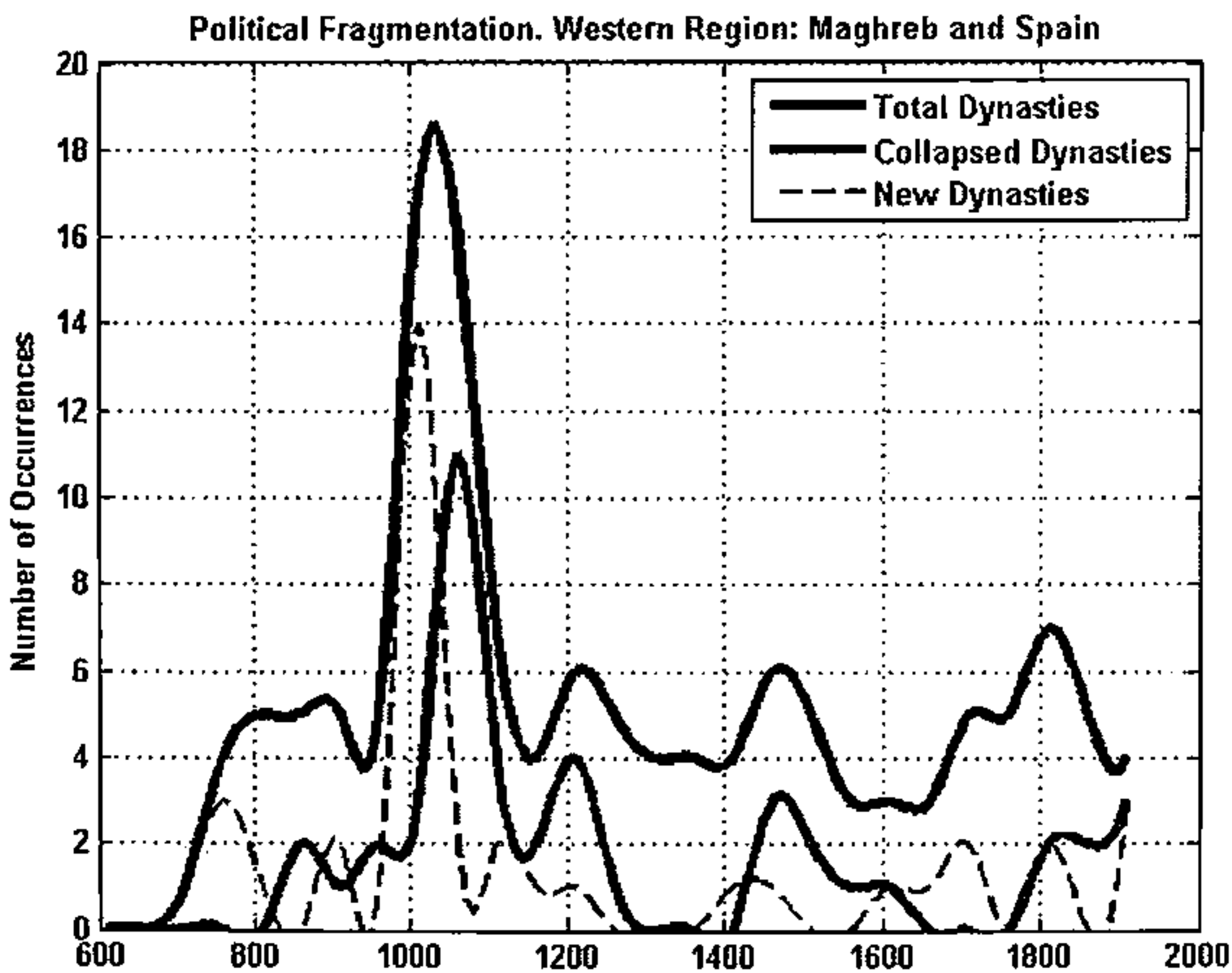


Figure 11: Extent of Political Fragmentation, Western Region

In the western region, increase in fragmentation in the eighth century was due to the emergence of statelets in the Maghreb (Algeria, Morocco, and Tunisia), figure 11. The peak fragmentation occurred in the eleventh century due to the collapse of the Umayyad emirate of Cordoba that resulted in the formation of more than thirty "party kingdoms" (*Taaifas*) (Ref: BCE), each independent but at the same time vulnerable to the powerful coalition of Christian kingdoms of Castile and Aragon. This anarchistic situation continued for about eighty years, when the Almoravid ruler Yusuf bin Tashfin from North Africa decided to enter Spain and, after consolidating most of the *Taaifas* there, achieved significant victories against the Christian kingdoms.

The eastern region that includes Afghanistan, India, Pakistan, Malaysia, and Indonesia was not as volatile in terms of political fragmentation as the central and the western regions. This can be probably attributed to the geographical location but also to the outlook of the invaders. After the violent period under the Ghaznavids and Ghaurids was over, the subsequent dynasties such as the slave kings and the early Mughals wanted to quickly settle down while adapting to local conditions.

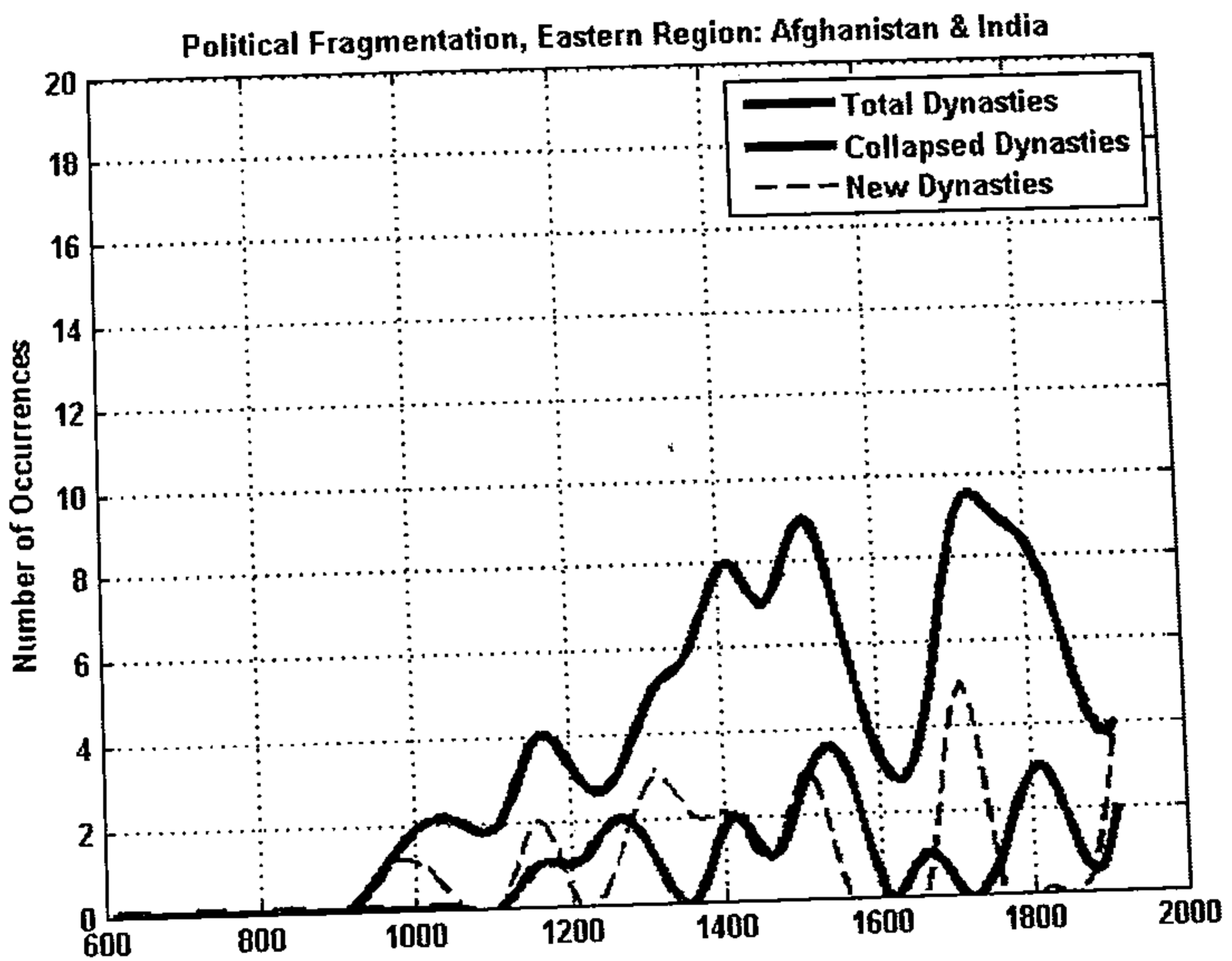


Figure 12: Extent of Political Fragmentation in the Eastern Region

Figure 12 shows the extent of political fragmentation in the eastern region. The dip in the curve during the sixteenth and the seventeenth centuries reflects the period of consolidation under the Mughals who were the supreme power in India. As their power decayed, there emerged a large number of independent statelets. This situation remained so until the

British and other colonial powers appeared on the scene and consolidated the territories based on their superior organization, political acumen, technology, and firepower.

Drawbacks of Fragmentation

During the Khilafat-i-Rashida, the Umayyad and the early part of the Abbasid era, the Muslim world was ruled by a single regime. In the subsequent years, there emerged many dynastic regimes that went beyond the pale of the center. In due course, their number increased that eroded the power and reach of the caliphate.

There are many ways in which independent regimes can come into being. In the first case, the conquest of remote lands and their pacification necessitated the posting of the army for extended periods of time. Due to the long distances involved, the commanders in the field were expected to become self-sufficient in administrative and military matters and at the same time remain subservient to the center. Since they were no longer beholden to the center for guidance or for material support, many field commanders decided to be rid of the allegiance to the center and become quasi independent. Over time, this situation gave rise to emergence of parallel dynasties that followed the same rules for the transition of power as those for the center.

In the second case, after the conquest of fresh land by the Muslim army, or the quelling of a rebellion, the civilian governor appointed by the center also succumbed to similar temptations and managed to declare unilateral independence. In the third case, an external enemy (Mongols in central Asia or the Christian states in Spain) after recapturing outlying Muslim lands replaced the existing governor with a puppet ruler who became a vassal of the conqueror.

Fragmentation of the Muslim state into statelets was fraught with many dangers and drawbacks, including the following:

- 1) It diminished the prestige of the caliphate, curtailed its reach, and eroded its power.
- 2) It drastically cut down the state revenues. In spite of the fact that new territories were under the rule and new lands were brought under cultivation accompanied by increase in population, greater commerce, and trade, the cumulative taxes collected during the Abbasid caliphate went down significantly (Ref: MR):

AD 750: 400 million gold dinars (Caliph al-Safah)

AD 850: 300 million gold dinars (Caliph al-Mutawwakil)

AD 919: 210 million gold dinars (Caliph al-Muqtadir)

Declining revenues inevitably led to the state of decline of the caliphate. It can be extrapolated that by the time the Mongols invaded in 1258, the state had become bereft of revenue and vulnerable to catastrophic setbacks.

- 3) It resulted in the emergence of elitist and powerful families of viziers and palace guards such as Buyids, Seljuqs, and Mamluks that eventually usurped the power of the caliphs. In the end, the caliphs found themselves to be at their mercy for their lives and liberty.
- 4) It emboldened the enemy into direct incursion into Muslim lands.
- 5) It gave rise to incessant intrigues and civil wars that would sap the energies of the Muslim people.
- 6) It was wasteful in terms of the resources as each statelet needed to raise its flag by establishing new seats of power and replicate and upgrade defenses and infrastructures, including the expensive palaces befitting a ruler.
- 7) In most cases, it disrupted the course of education and scientific development in the new state as it had more pressing needs and responsibilities than to support the educational infrastructure. Surprisingly, developments in art and architecture were a notable exception as these were used to extol the new rulers.

There were certain exceptions to this rule. In Spain after AD 1014, when the Umayyad state fragmented into thirty or so statelets, educational and scientific development, due to the sagacity or one-upmanship of a limited number of rulers, continued in the metropolitan centers such as Cordoba (under Jahwarids) and Toledo (under Dhul Nunids).

6. Length of Rule

Political stability is indicated by the length of rule by a certain potentate. The larger is the number of turnovers during a certain time period, the lesser is the political stability. Short rule times generally indicate existence of turmoil and intrigues that have a detrimental effect on governance and the stability of the state.

Instability or ruler turnover rate can be measured by counting the number of ruler changes within a fifty-year time slot. The higher is the instability, the more negative influence it has on the progress of the society.

Data regarding the dynastic rulers of the central and the western regions has been collected from various sources (Ref: BC, MR, MW) and tabulated in appendix 4.

This tabulation also includes metrics such as the dynasty's duration of rule, the number of rulers, and the average duration per ruler. It shows the total number of ruler changes within every fifty-year time slot. This is done for every concurrently extant dynasty. From that, we can obtain the cumulative number of ruler (regime) changes within each fifty-year time slot. Figure 13 shows the profile of the number of ruler changes for the three regions and on the whole.

The profile for the central region shows an almost linear increase in the rate of the ruler turnover (per fifty-year period). The turnover increased dramatically during the ninth and tenth centuries. This was the onset of the weakening of the Abbasid caliphate under the rising influence of the palace guards (condottieri) of Turkic and Persian origin. Over time, their power grew so much that they could install, depose, kill, or maim caliphs at their whim.

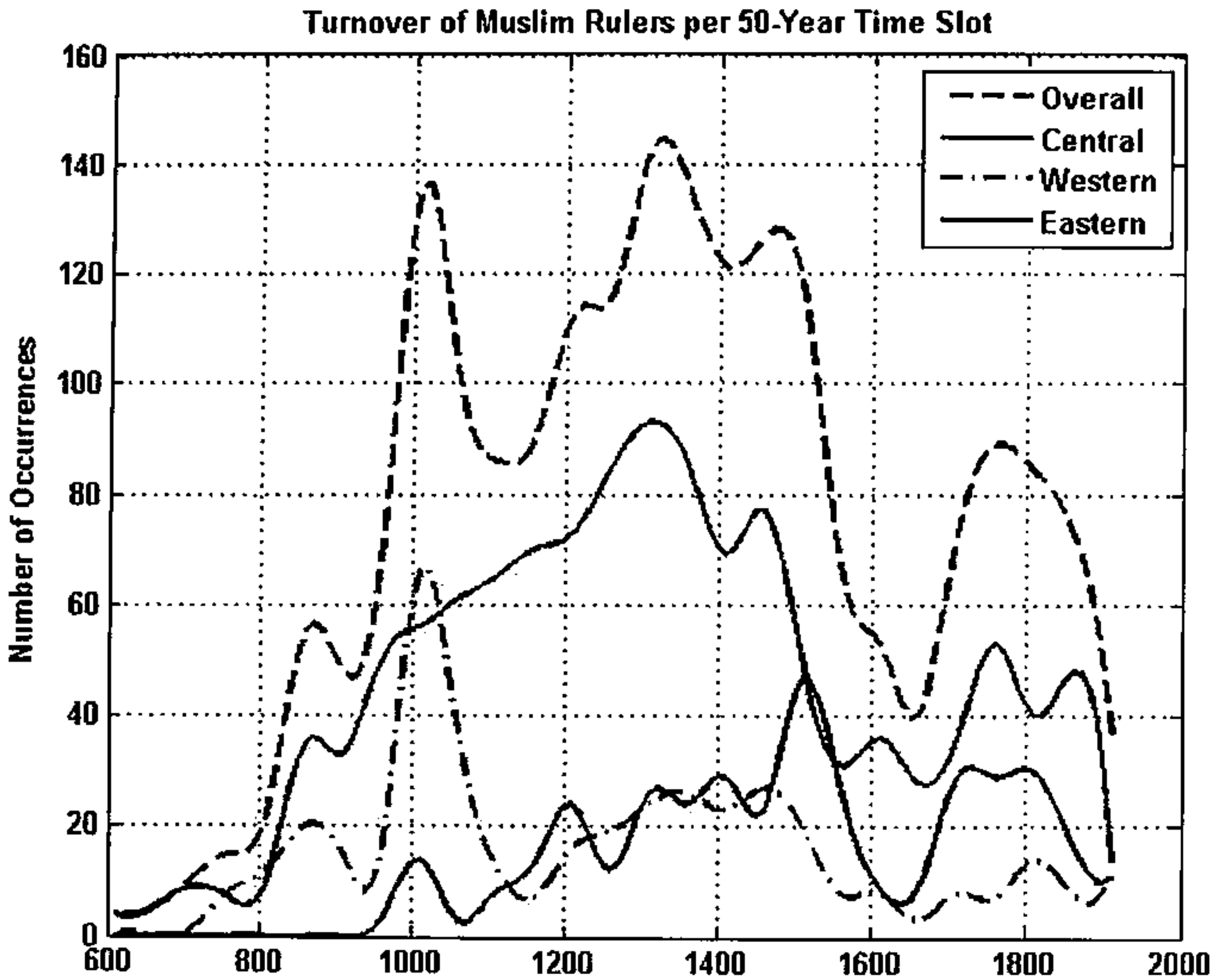


Figure 13: Rate of Turnover of Rulers

For instance, al-Mutawwakil after being installed by them in 847 was killed in 861. His successor al-Muntasir was poisoned the next year. In 932, al-Qahir was deposed after being blinded. (It may be noted that the Abbasid caliphs were not the sole victims of such atrocities. During that time period, such abhorrent actions were also committed on and off by the Byzantine usurpers against their anointed kings [Ref: PJ]).

The overall effect of these atrocities was that there was a rapid ruler turnover with ensuing instability. Another factor that may have contributed to this rapid turnover was their shortened life span due to their indolent lifestyle. The overall rate of ruler turnover continued to climb due the emergence of multiple dynasties and the sway of palace

intrigues everywhere. For the central region, ruler turnover dipped slightly in the fourteenth century due to the consolidation of several dynasties into the emerging Ottoman state.

The curve for the western region shows increased ruler turnover around AD 1000 during the time of the "party kingdoms" (Taaifas) in Spain. Ruler turnover declined after the consolidation of the Taaifas into a unified Almoravid state. It again increased slightly during and after the Almohad dynasty.

7. Internal Stability and Peace

Internal stability and peaceful conditions are essential for the improvement of economy and the quality of life of the people. Episodes of rebellions and internal strifes are a sure indication of the malaise of dissatisfaction and unrest. They seriously affect internal security, cause a severe drain on resources, and impede the progress of the society. The larger the number of rebellions within a given time period is, the greater is the turmoil or the level of internal instability.

The cumulative count of rebellions within each fifty-year time period can be viewed as an indicator of unrest. Ideally, we desire that this number be as small as possible. Data for the civil wars, internal strifes, and rebellions has been aggregated from multiple sources and tabulated in appendix 5 and plotted in figure 14.

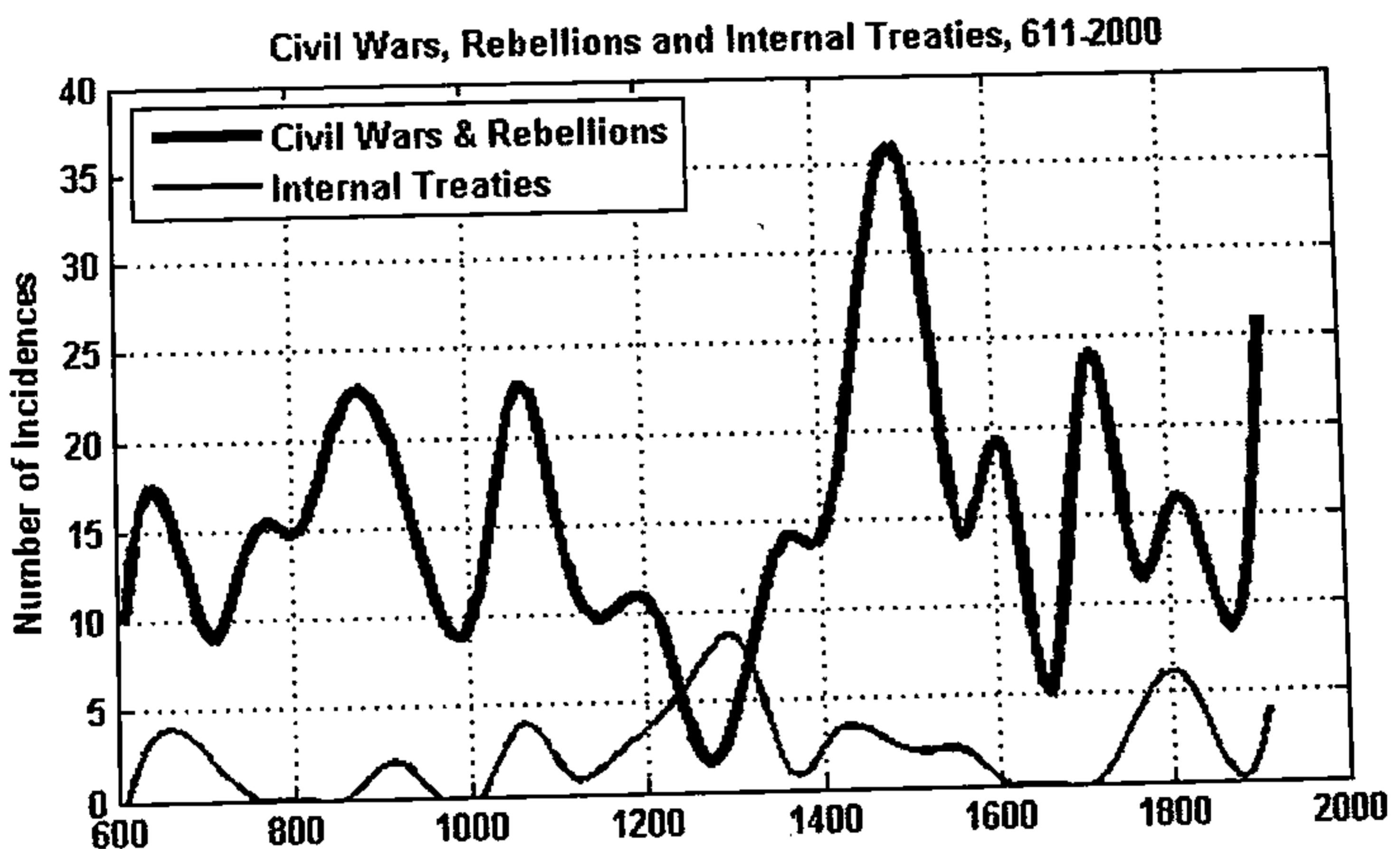


Figure 14: Number of Internal Rebellions and Civil Strifes

There are many vicissitudes in the total number of rebellions in the above diagram. The first peak occurred just before the end of the Khilafat-i-Rashida period when there were several major civil war battles (Camel, Siffin, Nahrawan, and others). The tragic event of

Karbala marked the start of the everlasting schism that continues to bedevil the Ummah to this day and shows no signs of abatement in the foreseeable future.

The next peak in the number of rebellions occurred around mideighth century when the Abbasids defeated and replaced the Umayyad dynasty. After a brief lull, civil strife began to rise again in the ninth century due to the fragmentation and the emergence of multiple independent states. To quell these rebellions, the caliphate was forced to launch frequent expeditions involving huge expenditure of money, men, and time. This was a severe hemorrhage of precious resources that were sorely needed for the uplift of the state and the people. The caliphate got trapped inside a downward cycle of decline, and it became vulnerable to internal intrigues and external attacks.

During the tenth century, the number of rebellions subsided. This can be explained that by this time the independent dynasties in Egypt (Fatimid), Persia, and Afghanistan had attained maturity. This enabled them to pacify areas under their control. Just prior to the onset of the Crusades, civil conflict rose between Fatimids, Seljuqs, Buyids, and Ismailis⁴ in the central region. At the same time, out in the west, numerous rebellions hastened the collapse of the Umayyads in Spain.

During the Crusader period, there was a marked drop in the number of episodes of internal strifes. The reason was that with some exceptions, entire energies of the Muslim states were directed toward containing and expelling the aggressors. Jockeying for power started for real among the remnant Muslim states after the final expulsion of the Crusaders from the Levant in AD 1247 and the retreat of the Mongols after their defeat by the Mamluks in AD 1260.

The fourteenth and the fifteenth centuries saw a steep rise in the number of internal warfare events. The major players of the time were Seljuqs, Ottomans, various Turkic warlords of Anatolia, Ayyubids, and Ilkhanids (Mongols who were beginning to convert to Islam). These conditions persisted till the onset of the sixteenth century when the victorious dynasties—Ottomans, Safavids, and Mughals—were able to pacify their major rivals and proceed toward establishing great dynasties of their own.

There have also been a number of incidences of repressions of minorities, both Muslim and non-Muslims, by despotic rulers. Even more disturbing were the incidences of cruelties and atrocities perpetrated on the people not only by the external elements, the Mongols, the Spanish inquisitors, and the Byzantines but also by the Abbasids and the Umayyads on their own people. Their victims included direct political rivals, out-of-favor princes

⁴ Assassins (Hashashins) were an offshoot of the Ismaili faith.

⁵ Atrocities in any shape or form or for whatever reason can never be condoned. It is no comfort to know that contemporary rulers in Europe also indulged in such abhorrent activities. People

and viziers or religious non-conformists who had the audacity to differ⁵. Figure 15 plots the incidences of repressions and atrocities. For details, see appendix 4.

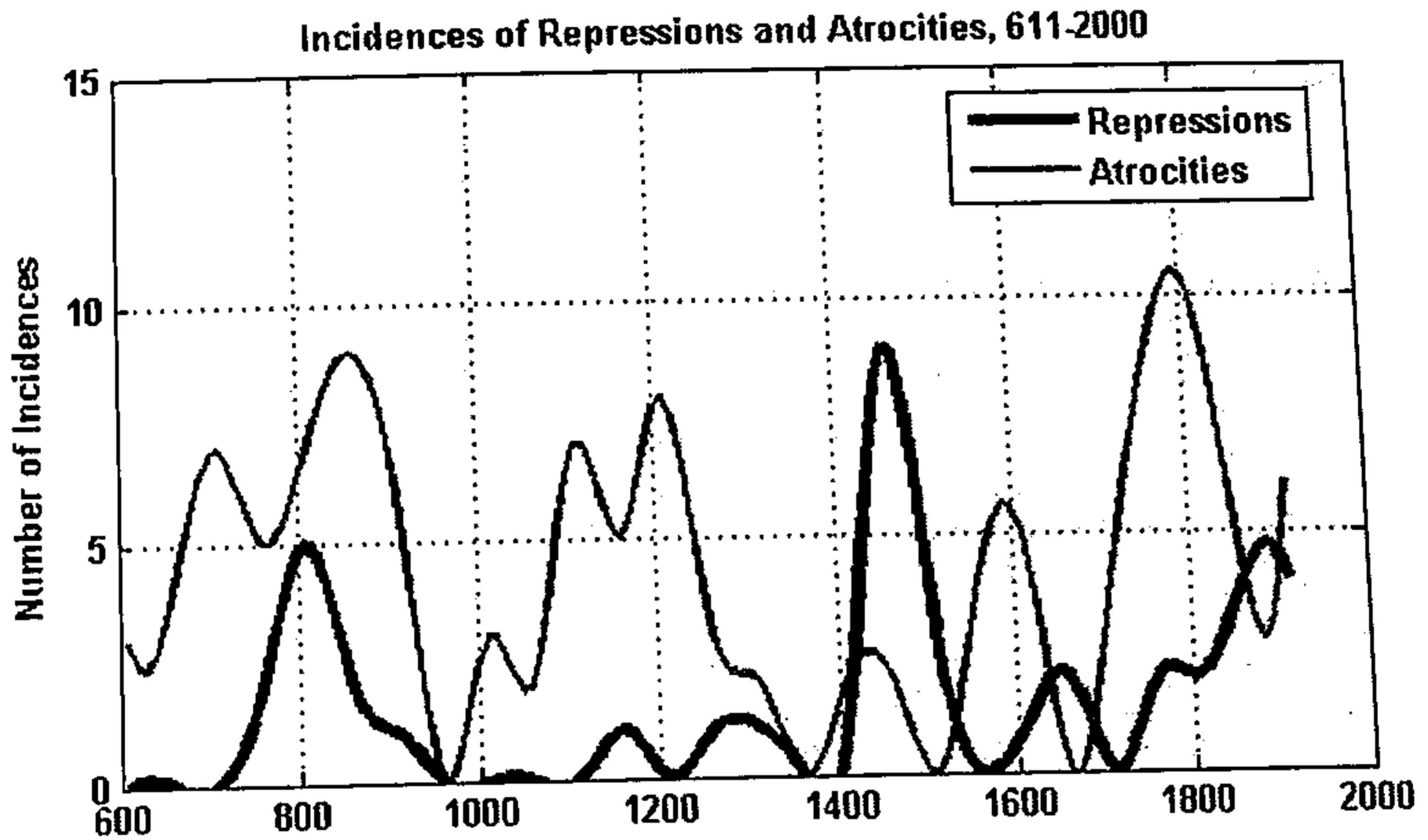


Figure 15: Repressions and Atrocities

8. External Campaigns

Muslim states had to engage in offensive and defensive campaigns against external threats throughout their chequered history. Muslim armies had a phenomenal record in terms of victories but also had to suffer major defeats, see figure 16. Until the 1600s, the number of victories in each time slot was generally higher than the number of defeats. The situation changed for the worse after that as the Ottoman Empire and the Mughal Empire that had to contend with the European powers became weaker and could not adequately respond to better tactics, training, and armaments.

It may be mentioned that not all victories or defeats are of the same significance. Some mark the turning point on history. Since the assignment of the degree of significance to each battle is subjective and based on interpretation, it is avoided in this present study.

could be accused of political (treason, disloyalty or insubordination), religious (heresy, inquisition or witchcraft) or crimes of moral turpitude (infidelity). Once charged, it was almost impossible to escape. In England, brutal procedures of torture using sophisticated tools continued to be used under the Tudors, the Stuarts and the Republicans as late as 1700s (Ref: FA, HUR). It was only in the age of enlightenment in Europe that public opinion was able to decisively turn the tide against such abhorrant practices.

Since none of the battles has been assigned weights, it is assumed that the significances will be averaged out over a longer period.

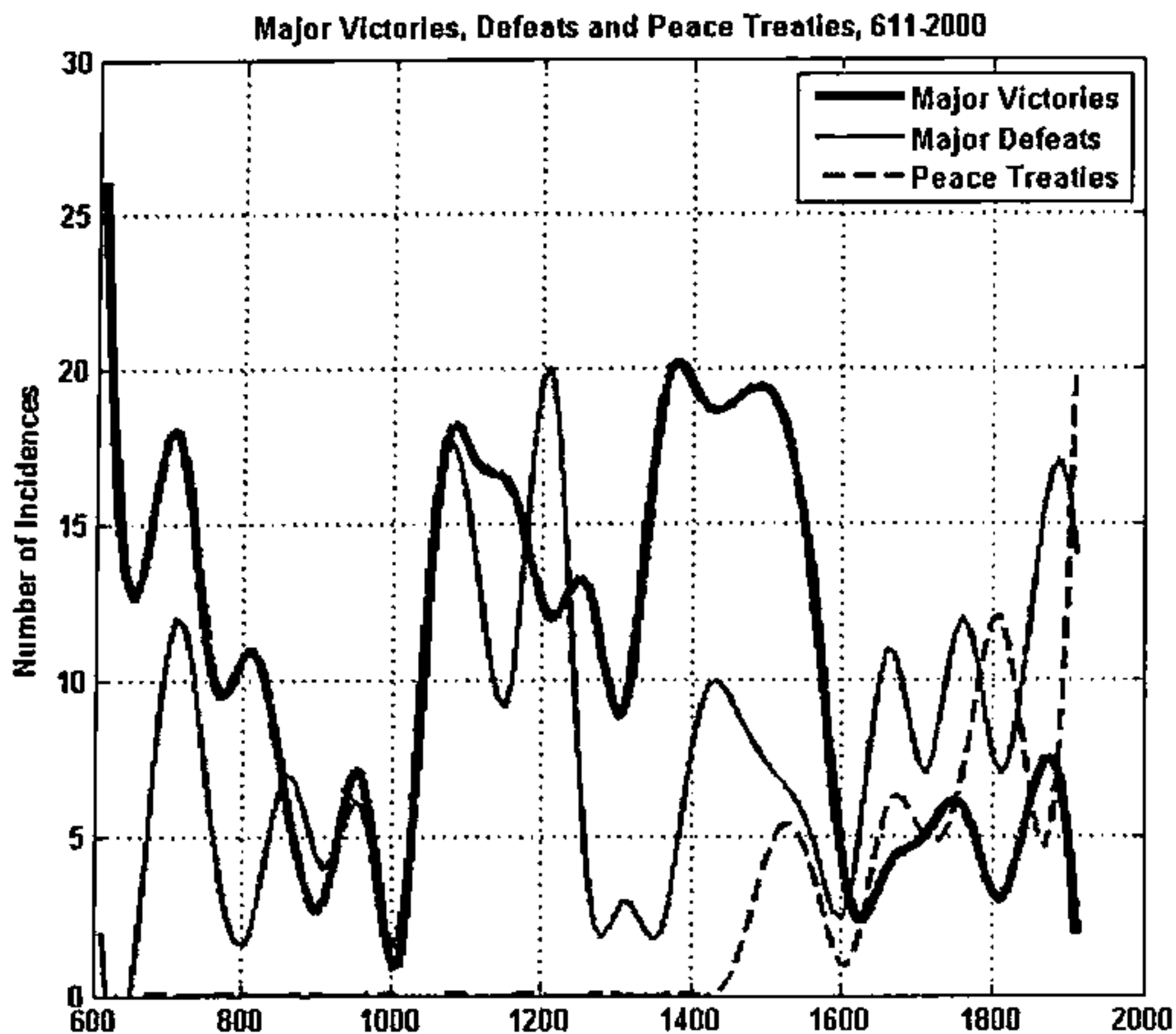


Figure 16: Major Victories, Defeats, and External Peace Treaties

Figure 17 shows the profile of the overall defeats suffered by the Muslim forces. There are many peaks and troughs. There was an upsurge in the number of defeats in the eighth century, but as seen in figure 16, this was more than compensated by the number of victories over the Byzantines. Another peak occurred during the Crusades in the eleventh and the twelfth centuries.

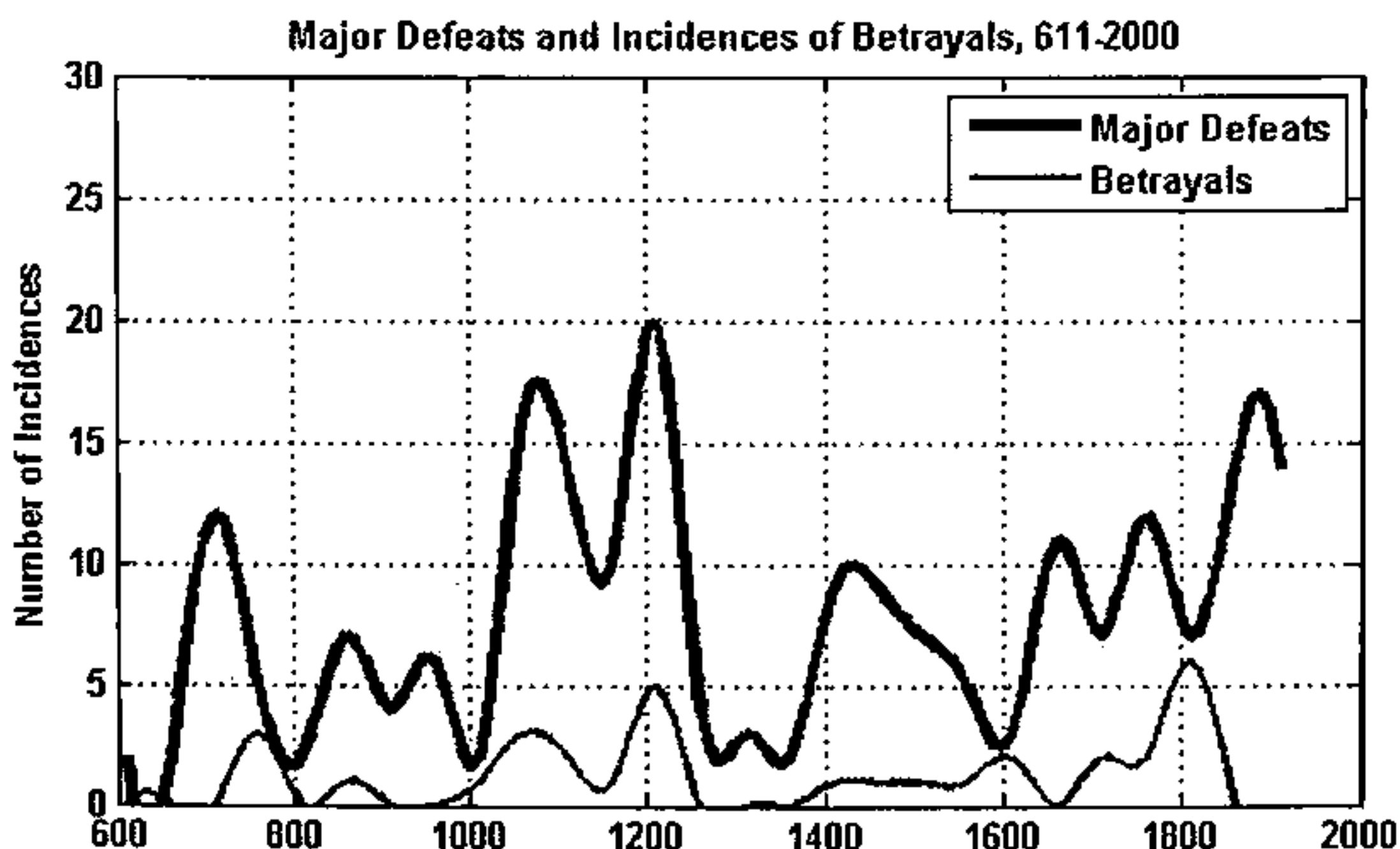


Figure 17: Major Defeats and Incidences of Betrayals

After a spike in the thirteenth century due to the Mongol invasion, things were stabilized due to regrouping of the Muslim forces under the Mamluks and the Seljuqs. Another peak occurred in the fifteenth century due to the setbacks in Spain and the reverses suffered by the Ottomans prior to the conquest of Constantinople. During the fifteenth and the sixteenth centuries, due to consolidation under the Ottoman rule, the incidences of defeats fell down. After 1600s, they began an upward surge due to the weakening of the Ottoman, the Safavid, and the Mughal power.

Figure 17 also depicts the number of incidences of betrayals and acts of treason. It may be noted that in many cases, their high points are closely aligned to the peaks of the incidents of defeats. Increased number of betrayals tend to happen just before or just after the major defeats, implying a strong correspondence between the two. Complete data about the betrayals and the defeats is given in appendix 3.

9. The Colonial Encounter

After the fall of Seville in Spain in 1248 and Baghdad in 1258, with the exception of Turkish-held Middle East and Anatolia, the Muslim lands due to their fragmentation and a host of other weaknesses were rendered vulnerable to external dangers. It is the impotence of the Muslim states that prompted the European nations to make inroads at the beginning of the fifteenth century. It is not surprising that they exploited the internal divisions within the Muslim states to the fullest extent. In this adventure, the colonizers, of course, utilized their newfound maritime and military prowess coupled with better infrastructure, organization, and training.

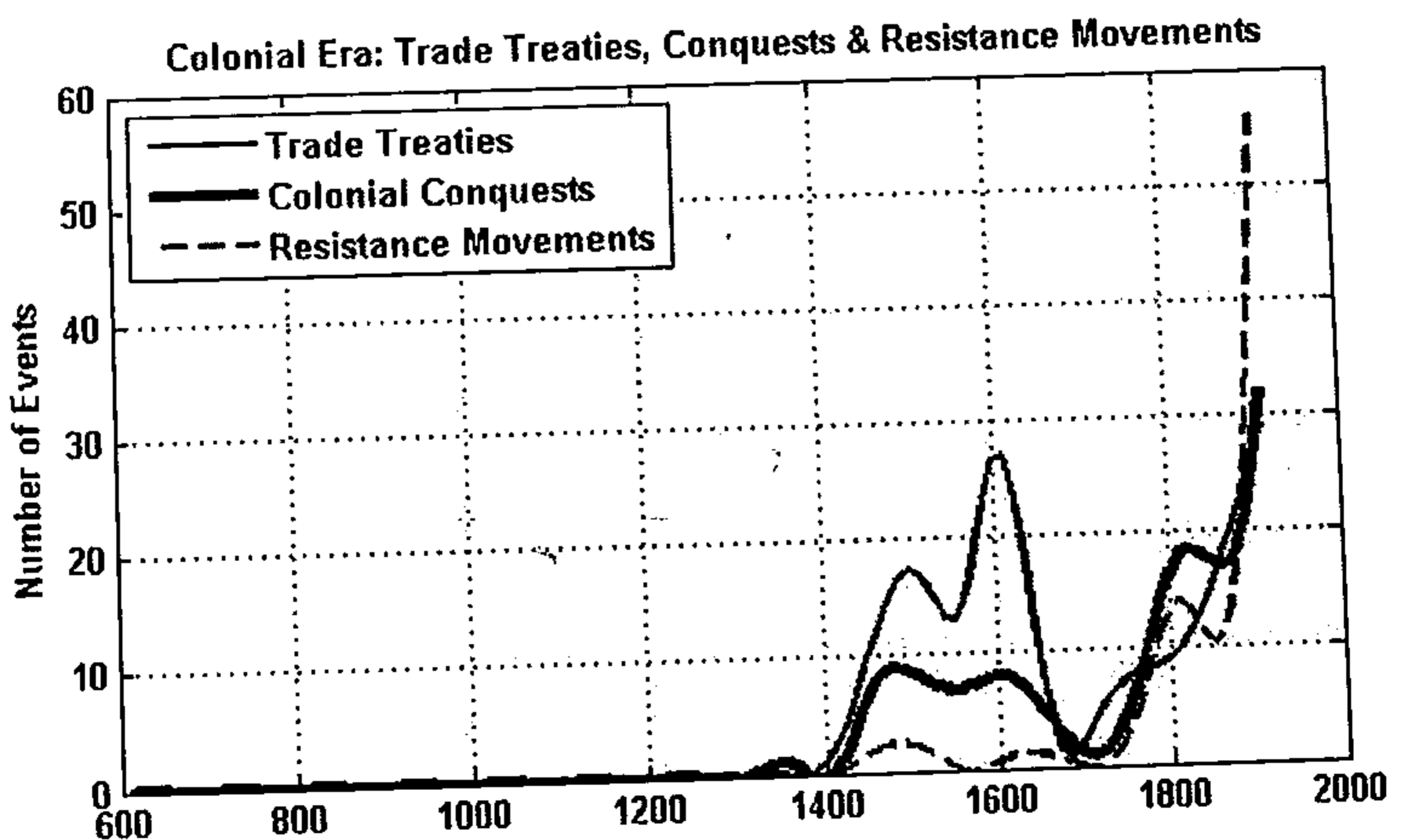


Figure 18: The Colonial Era: Treaties, Conquests, and Resistance Movements

As described earlier, at first the inroads were probing undertakings in the form of harmless trade missions legitimized through treaties with the local rulers. On discovering their military and organizational weakness and military impotence, the colonial powers soon started full-scale conquests to gain more territory and revenue.

The intriguing question is why the Muslim states found themselves to be in this predicament where they could not defend themselves, not to speak of mounting their own maritime adventures in far-off lands and to exploit the violent differences between the European nations (Britain, France, Holland, Spain, etc., on the national or religious lines) or the fissures within their own populations (e.g., Irish vs. Scottish vs. English, French vs. the Corsicans, Basques vs. the Catalans, etc.) to their advantage. This is the question that we will attempt to respond in chapter 3 by highlighting the root causes of the decline.

As shown in figure 18, both the number of conquests and trade treaties grew steadily. There was a dip in their number due to the armed conflict over prized territories between the colonial powers themselves, e.g., the Dutch vs. the Portuguese, the Dutch vs. the British, the British vs. the French, and so on.

After the 1700s, the British appeared as clear winners. They continued with the process of colonial expansion at a furious rate. They learned from the mistakes of others and turned out to be a colonial power par excellence. Through clever use of policies including divide and rule, guile, repression, atrocities, and rewards, they managed to extend their rule till the middle of the twentieth century and rule over vast portion of the world's real estate. They were also highly efficient. A comparatively very small number of twenty-five thousand British soldiers and administrators were able to rule over the entire land of India of over four hundred million people.

After 1700s, the colonized people started their own resistance movements when they began to feel the effects of the loss of freedom and economic exploitation in the form of punitive taxation. Colonial conquests continued unabated until the middle of the twentieth century due to the vast power gap between the two parties. It was only after World War II that power was grudgingly reverted and freedom was granted, albeit nominally to the locals. This situation exists more or less the same today.

Relationships between the Indicators

The previous plots show the variations in the indicators with respect to time and in particular the peaks, troughs, and trends. These do not give us any insight regarding the relationships between them, i.e., a change in one can affect changes in one or more of the other ones. For example, what is the effect of heightened turmoil in the society on

achievements in arts? If it is negative, then what is its magnitude? In order to answer questions of this nature, we will resort to statistical analysis.

Correlation analysis between different indicators has been done and correlation coefficients⁶ recorded in table 4 in appendix 2. Here is a summary of the results.

As expected, the results confirm that times of anarchy and civil strife were most damaging to all intellectual activities as well as to progress in infrastructure development. During these times, the state's main focus and resource expenditure were geared solely toward quelling the rebellions. The rulers could not pay attention to any productive activity. It is not surprising that during anarchy, Muslim states were most vulnerable to external attacks. Compared to the number of victories, they suffered more defeats during these times.

There was significant progress in philosophy, sciences, and arts when there were more institutions (madrassas, darul ulooms, and universities). It is obvious that institutional development has a positive association with construction activity for infrastructure.

Arts and architecture thrived much more (as compared to sciences) when infrastructure was being developed.

There were insignificant developments in arts while work was being carried out in the area of theology and philosophy.

A rather surprising result has emerged. When the Muslim state was divided up into smaller units and controlled by independent dynasties (for example, Seljuqs of Anatolia and Iraq, Fatimids and Mamluks of Egypt, Aghlabids of North Africa, Taaifas of Spain, sultanates in Anatolia, etc.), there was a marked progress in sciences and arts. It was even more pronounced in institutional and infrastructure development. This can be attributed to a number of factors. The ruler of a smaller unit was better able to manage his realm and to collect the revenues more efficiently. He also wanted to consolidate his reign and to become popular. Each ruler vied with each other to attract the best scholars, artists, and poets to work under his patronage.

As expected, the higher the degree of fragmentation, the higher was the ruler turnover. This was probably due to the reason that once the main architect and strongman of the state passed away, many candidates for succession appeared on the stage resulting in intrigues and coups.

⁶ These values provide us with a quantitative measure of association (positive or negative) between the indicators. The closer the value is to +1, the greater is the association. If it is closer to zero, then there the indicators are independently changing. If it is closer to -1, then

After the emergence of smaller units, there was a period of stability during which incidences of revolts actually decreased.

Other Quantifiable Indicators

There are also other indicators that are missing from this list. One of these relates to the size of geographical area. The size of the geographical area under Muslim rule constantly grew in the initial period. Larger areas under the jurisdiction can correspond to increased amount of resources and revenue available to the state as well as increase in the number of Muslims as a result of conversion or resettlement. This indicator can be useful in the determination of overall progress or decline of the Muslim state. Precise figures for the changes in size of the geographical area are not available presently.

Another indicator relates to the quantification of material wealth and prosperity obtained through the measurement of the availability or paucity of resources, degree or lack of personal affluence, level of prosperity resulting from trade, commerce, agricultural output, employment, etc. If the distribution of wealth and resources is equitable and just (according to Haquq ul Ibad), material wealth and prosperity will result in increasing levels of satisfaction, happiness, and an improved **quality of life** for the majority of the populace. The reason that this indicator is not considered because the data on this subject is nonexistent or sparse.

A Quantitative Measure of Progress

The changing patterns of different indicators have been plotted and discussed in the previous sections. As attributes of the society, these indicators in one way or the other reflect the level of its progress or decline. It would be interesting to investigate how these can be combined to produce an overall measure of the state of progress of the society at a given point of time. This number is called the Society Progress Number (SPN). By plotting this number over the time scale, we can depict and compare the progress or decline of the society.

Calculation of Society Progress Number (SPN)

The main issue is how to combine all the different indicators, which are time-varying quantities, to produce the SPN. One way is through their simple addition, but the disadvantage is that all indicators are treated equally, and it is not possible to highlight the influence of some that are considered more important. A weighted addition scheme is

the association is inverse in the sense that change in one indicator is associated with change in the opposite direction in the other. It may be noted that these values only give us association and not causality or dependency. For this, we will have to resort to interpretation.

better suited for this purpose and will be used in calculating a single value that summarizes the overall level of the society at a given point in time.

Since the ranges of each indicator values are different, for instance, the number of achievements in the exact sciences varies from 0 to 45, whereas in the case of arts the range is 1 to 114, we cannot just add these up as such. These values have first to be normalized to a common scale of 0 to 100. This means that the maximum value will be scaled to become 100 while the nonzero minimum will also be scaled proportionally. For example, in the case of arts, the numbers 114 and 1 will be normalized to become 100 and 0.8, respectively. The real and normalized values for the indicators are given in the table 2 in appendix 3.

Now we can use the normalized counts of the indicators to calculate the cumulative measure, Society Progress Number (SPN), for each fifty-year time slot. The exact formula for the computation is given in appendix 3. Progress of a society can be viewed from different angles by different observers. Some observers may like to view the progress from the viewpoint of scientific progress, others from the viewpoint of military achievement, or some may want a combination in which the indicators are prioritized in a certain way.

Progress Viewpoints

In order to cater to these different requirements, we can choose different levels of priorities or weights for different indicators. For example, we may want to consider progress or decline from the viewpoint of scientific achievement, then we will assign its indicator a higher weightage as compared to military successes and defeats. As shown in appendix 3, different sets of weights have been chosen and used in calculating the SPN for each fifty-year time slot. The SPN can be tailored to suit a large number of viewpoints. We have calculated the SPN results for the following representative viewpoints:

emphasis on arts and sciences

equal emphasis on arts and sciences and military achievements

The plots of the SPNs for these viewpoints are shown in figures 19 and 20.

a. Society Progress Chart: Emphasis, Arts and Sciences

Figure 19 shows that there was a rapid increase in the number of achievements in the fields of arts and sciences till the tenth century. There have been three distinct peaks. The first one occurred around AD 1000 during the Abbasid times and the second around AD 1250 as part of Muslim recovery prior to the defeat of the Crusades. The third one happened around AD 1300 indicating the recovery after the Mongol invasion. From this plot, we can conclude the peak period in arts and sciences took place around AD 1150. However, this recovery was short lived, and Muslim societies lost their capabilities for

progress in these fields forever. The reasons for these turn of events will be discussed in the succeeding chapters.

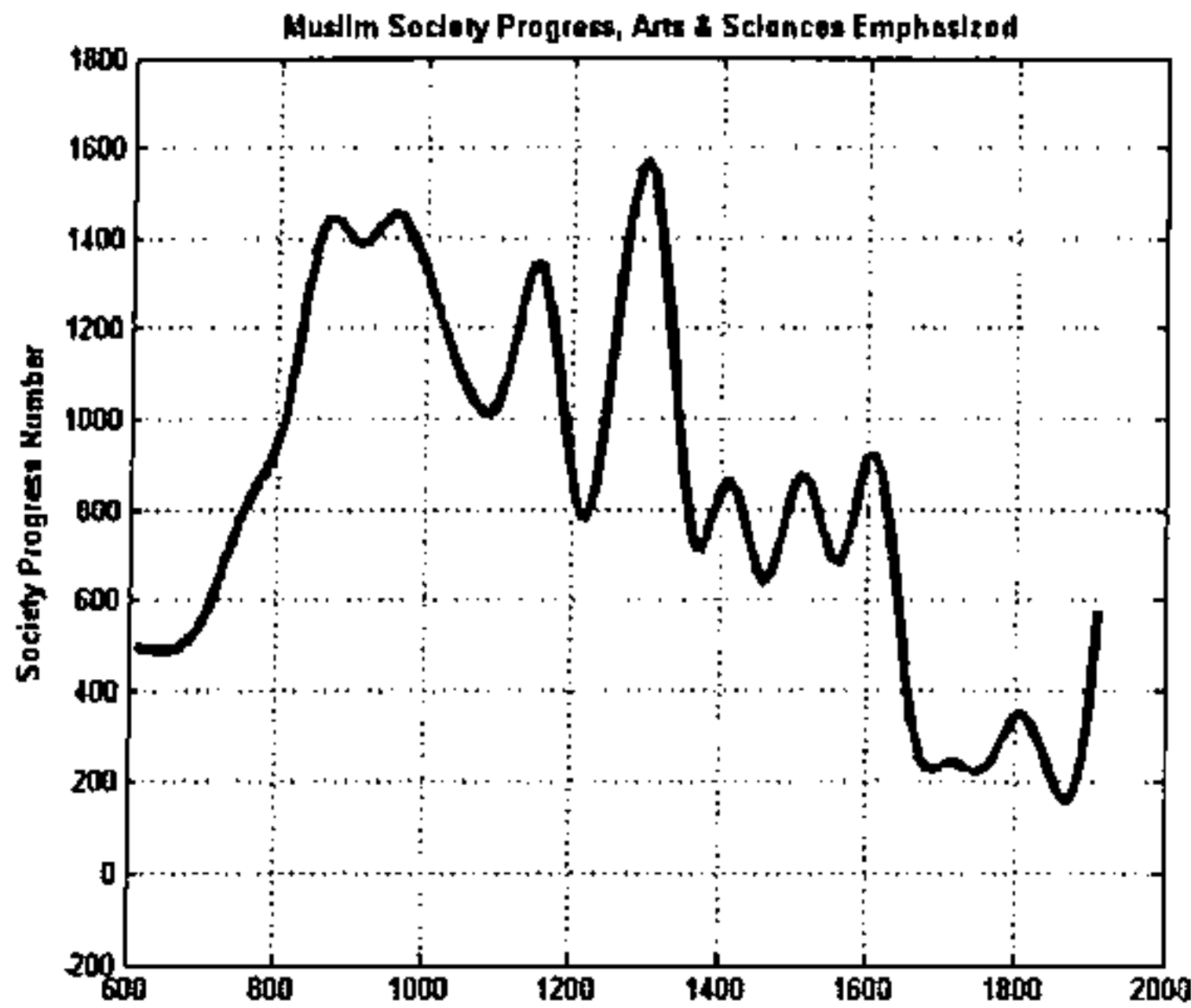


Figure 19: Muslim Society Progress: Viewpoint—Arts and Sciences

b. Society Progress Chart: Emphasis, Arts and Sciences and Military Campaigns

Figure 20 shows the progress of the Muslim societies from the viewpoint in which we give equal emphasis to achievements in arts and sciences as well as in the military field. The plot shows four peaks and the same number of troughs. Muslim societies reached their peak in the later part of the twelfth century and around AD 1300. One of the lowest ebbs was reached during the Crusades. The most serious trough happened in the early part of the fifteenth century marked by a general retreat in Spain and naval defeats accompanied by little or no progress in sciences.

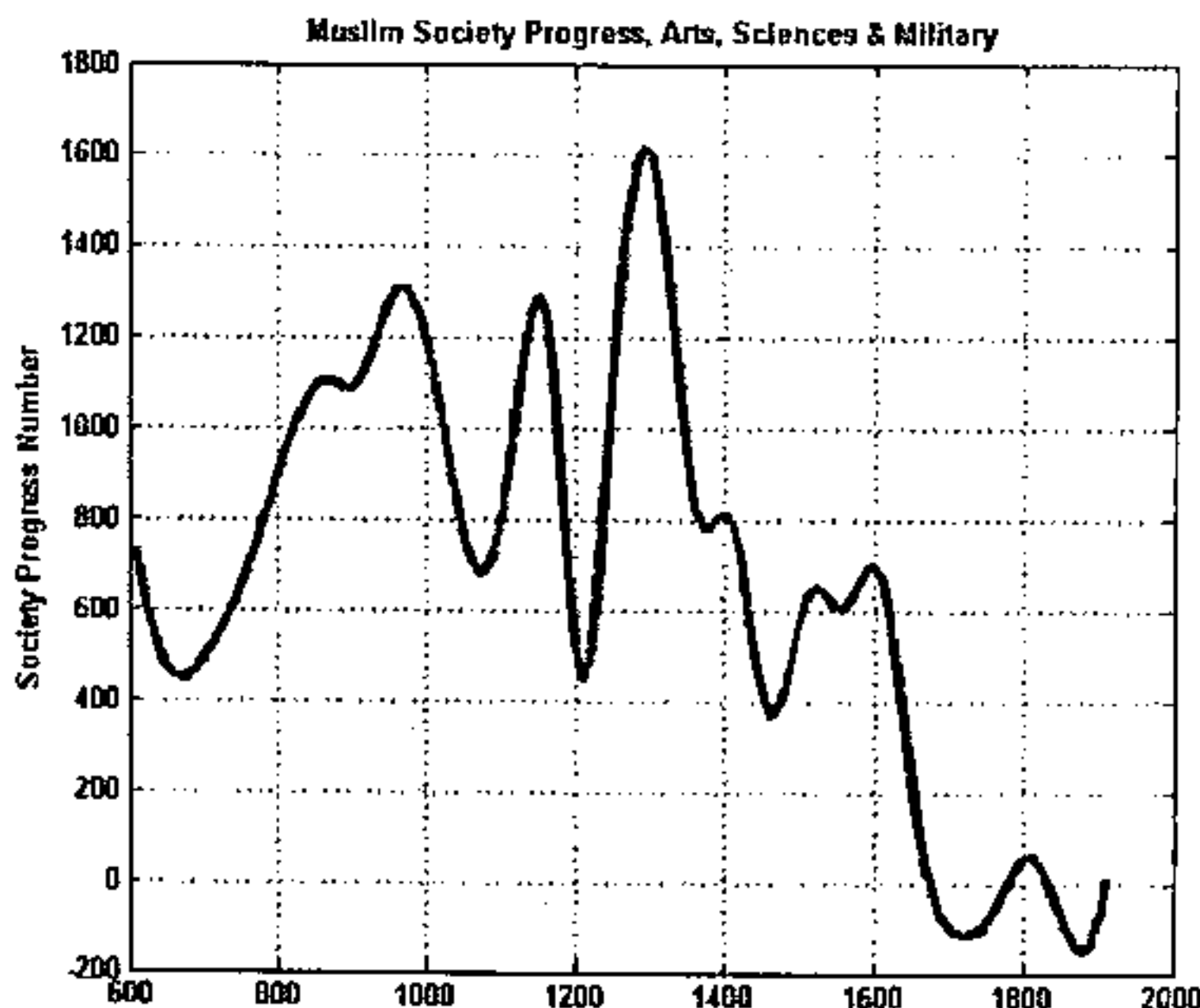


Figure 20: Muslim Society Progress: Viewpoint—Arts, Sciences, and Military

Why Did This All Happen?

A lingering question remains: how come a strong society can go into an uncontrollable and irreversible state of decline? There are many approaches to explain this. The first one is based on analogy. Just like an animate object, every created entity including social structures and societies go through stages of birth, maturity, decay, and annihilation. This approach was pioneered by Ibn Khaldun (Ref: IK) who viewed societies as living entities.

The natural decay process has been given a humorous twist under the Peter Principle (Ref: PL) that states, "in an hierarchy every employee tends to rise to the level of his incompetence" (after which either he makes a mess of the organization or is fired). As a corollary, he stated that the same must be true in case of civilizations and societies that advance to a certain extent and having reached their apex are unable to handle the situation any longer and then proceed on the path of decay.

The second approach is based on analytic modeling using a system of mathematical equations that can be solved to predict the future outcome or to explain the reasons why the society decayed as it did. This approach would need extremely complex modeling and computations in order to predict the behavior. Various models and methodologies have been proposed. These include dynamic social modeling (Ref: BRC) that can be used to examine the vulnerability of social networks.

Sometimes this behavior can be predicted or explained through the mathematical theory of chaos (Ref: LE) in which a system can reach a decisive state (such as the edge of cliff) such that any small perturbation can cause the system to collapse catastrophically. This is the proverbial "last straw on the camel's back." The same is true for societal systems that due to their degeneration can reach a point that a small incident (e.g., rebellion, breakdown in communication, and a thousand other causes in isolation or taken together) can result in its total defeat and destruction. It is true not only for the past civilizations but also in the recent history, e.g., the Soviet Union.

The reasons why the system lands itself in such a precarious state are complex and profound. Closely related to the chaos theory is the butterfly effect in which the effect of some seemingly insignificant happenings can have major consequences. This effect has been used to explain changes in weather where the proverbial "flappings of the wings of a butterfly in Brazil can cause a hurricane in Texas." What is meant is that a small difference in the initial conditions can result in phenomenal changes to the final results that are completely out of proportion to the magnitude of the starting differences (Ref: HC). A well-known parable testifies to the butterfly effect:

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For want of a nail, the shoe was lost;
 For want of a shoe the horse was lost;
 For want of a horse the rider was lost;
 For want of a rider the battle was lost;
 For want of a battle the kingdom was lost.

Closer scrutiny of the Muslim history will reveal that the above effect and the theory are indeed true. Some examples can be cited to support this contention: the rise of the rebellion in Khorasan in AD 747 that resulted in the collapse of the Umayyads in AD 758, fragmentation into statelets around AD 1030 that contributed to the defeat of Almohads in AD 1212 and the eventual fall of Muslim Spain, negligence relating to naval warfare by the Ottomans that resulted in their defeat at Lepanto in AD 1571 and their eventual collapse, and so on.

Another explanation for the decline can be explained with the help of the "network effect" in which a set of deficiencies can synergize to form a network that is not only self-replicating but also growing in terms of their combined potency and lethality. One bad result gives rise to another, resulting in an unstoppable chain reaction (similar to the fission reaction) of deadliness and harm. A network model of failure situations will be described in chapter 3.

The network effect need not be associated only with the harmful effects. Just as the network of deficiencies, we can also construct a network of beneficial events that will have the opposite effect. Networks are ubiquitous in nature and in social and other systems. Example of beneficial networks include growth of education and awareness, the Internet, biological DNA networks, etc.

By their very nature, networks are dynamic structures that are expandable, resilient, and robust. Unlike a hierarchical tree structure, a network can survive temporary partitioning and given right conditions can regroup to recover its previous potentiality. If the elements of a network are allowed to pool their capabilities and work in unison, then a lot of good can come out. In theory, the combined effect of a network is proportional not to the sum but to the product of the capabilities of its components. This is a huge gain whose importance cannot be overemphasized.

It is possible to view Muslim successes in the ninth and the tenth centuries and their recovery after numerous catastrophies in terms of their teamwork and a network-styled development model. The same can be said about the phenomenal rise of Europe under the Renaissance that facilitated the development of a complex structure of progress.

The third approach, though not mathematically rigorous, is much simpler than the previous one. It is essentially based on the classification and analysis of facts and their interrelationships to identify the major factors that contributed to the decline. These

factors can then be expanded in terms of their constituents. This approach is adopted in chapter 3 to determine and list the major "deficiency factors."

Positive Achievements of the Medieval Period

We can surmise from the above analysis that the achievements of the medieval period are significant. It is obvious that the pace of achievements has not been uniform and was constrained due to many periods of trials and tribulations for the Muslim societies.

Muslim societies made pioneering work in most areas of secular and religious knowledge. They not only preserved but also transmitted with enhancements knowledge of the Greek, Indian, and Chinese scholars. Muslim rulers sponsored artists and architects who produced outstanding works for posterity. Their military generals devised strategies that helped them conquer vast amount of territory. The traders established continent-straddling commerce and trading links. The message of the faith was brought to the people of the known world in such a manner that even the erstwhile foes became ardent flag bearers and supporters of Islam.

In the recent years, a large amount of literature has appeared in media and the popular press recounting the achievements of Muslim scientists and scholars of yore. It is indeed most gratifying and comforting to know and reminisce about their world-class accomplishments as well as to raise awareness in the West. However, there is risk, that due to the overuse we may be unwittingly falling into the trap expressed by the Persian adage, '*Pidram Sultan Bud*' (my father was a Sultan) and resting on their laurels become overly complacent.

Instead, we should be analysing why these scholars were able to achieve what they did between the eighth to the twelfth centuries. Even more important is to uncover the factors that led to rapid decline and the cessation of output after that.

The achievements and strengths of the medieval age provided the baseline for the succeeding period, the dynastic succession, during which the Ottomans, the Safavids, and the Mughals emerged. These dynasties gradually consolidated their military and economic power and in a course of one hundred years reached the apex. Their rise owes a lot to the achievements and strengths they inherited from the medieval period. The major ones included

- Establishment of foundations of religious knowledge on solid basis. Momentous work was done in the compilation, consolidation, and codification of Tafsir, Hadis, Sunnah, Sharia, and Fiqh.
- Projection of the message of Islam to most areas of the world and conversion of a large number of people.

- Inculcation of respect and love of the faith in its adherents whether new or old.
- Development of an enormous pool of knowledge in sciences, philosophy, and technology.
- Establishment of the Muslim way of life and the flowering of its culture.
- Establishment of the concept of caliphate that transcended geographical, tribal, and ethnic boundaries.
- Development of administrative and physical infrastructure.
- Conquest of vast landmass in Asia and Africa (except for the major setback in Spain) and emergence of Muslims as a world power.
- Successful defense and reversal of the onslaught by external enemies (Crusaders and Mongols) and rejuvenation and recovery of the morale.
- Increase in the overall wealth of Muslim societies.

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Chapter 3

Identification and Classification of Causes of Decline

The first step in the identification of the causes of decline of Muslim societies was the collection of event data relating to their achievements and failures. Results obtained after the analysis and collation of this historical data can provide useful pointers to the underlying causes. While historical evidence and quantitative data analysis can give us raw numbers, trends, and correlations, these cannot uncover all the information necessary to identify all causal factors. We have also to do subjective analysis using observation, causal analysis, inductive reasoning, inference, and analogy in order to refine or uncover additional causal factors.

Data about the achievements and events have been plotted and subjected to quantitative analysis in chapter 2. This chapter will be devoted to the identification of probable causes that led to the decline. To identify the causal factors, we will employ a two-pronged approach in which we will not only use the results of the quantitative analysis but will also do rational analysis of the past and the interpretation of the contemporary state of affairs. The process of identifying the causal factors is shown in figure 21.

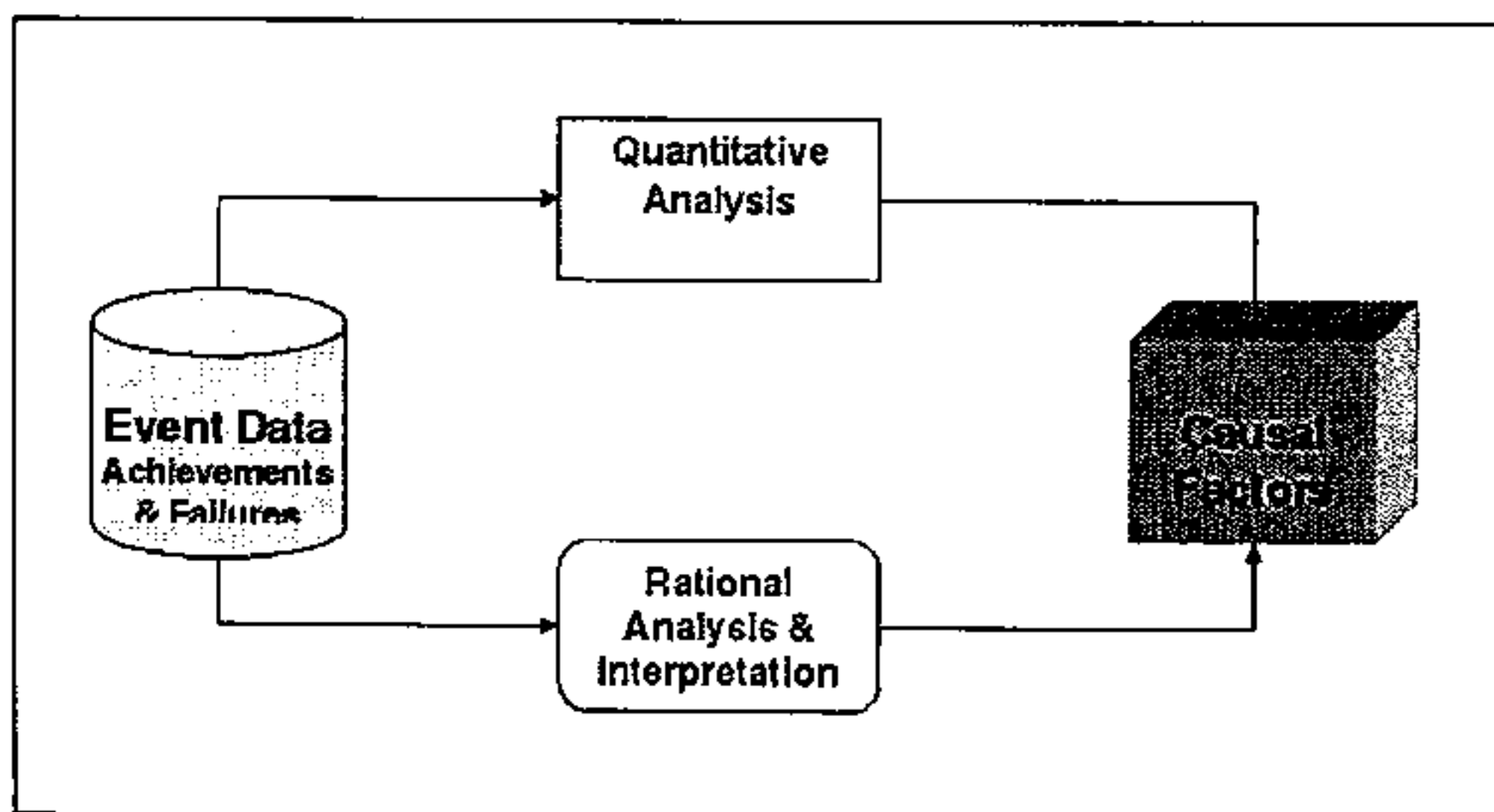


Figure 21: Identification of Causal Factors

Analysis of Causes Contributing to the Decline

From the study of policies and practices relating to religious, political, governmental, military, economic, educational, and social affairs adopted during the course of Muslim history, it is possible to derive many abstract and concrete causes that explain the rise and fall of the Muslim society.

Most of these causes are double-ended in the sense that they can have both a positive or negative influence. For example, "teamwork" is a factor (strongly endorsed by our faith) that if used judiciously can have a definite beneficial impact at all levels of the society. On the other hand, if teamwork is absent or is allowed to degenerate due to incompetent leadership, personal egos, conspiracies, betrayals, or other imperatives, it can and has produced immense and everlasting harm.

Owing to the large number of possible causes and the nature of their relationships, it is necessary to frame a taxonomy or a classification scheme. For a complex problem such as this, a top-down approach is needed to divide the problem into subproblems. Using the method of successive refinement, it is possible to break down these into lower-level problems that are more manageable.

For this, the first step is to list the broad areas of deficiencies that will be essentially abstract. In order to do analysis, we have to expand these abstract concepts into forms that are more concrete. This can be done in two stages: first into subareas and then into elementary level reasons called deficiency factors.

As an example, the deficiency area of "governance" can be expanded into subareas such as the "provision of justice" and "taxation." The "provision of justice" subarea can be expanded into deficiency factors such as "breakdown of law and order," "unjust laws," etc. The elementary level deficiency factors reasons can be further investigated to determine how these contributed towards the decline of the society.

For analysis, we will rely upon historical evidence, logical reasoning and inference, and the observation of current course of events. *Gestalt* principles of perception will be used to reveal the patterns and relationships between the factors. Analysis and classification of deficiencies will involve the following steps:

- **Classification and taxonomy**
Conversion and expansion of the abstract areas of deficiencies into more concrete forms, i.e., elementary level factors
- **Existential justification**
It is necessary to justify why a particular deficiency factor has been included. This justification will be based on historical evidence, causal analysis, inductive reasoning, inference, and analogy.

- **Impact analysis**

Determination of possible interactions between the deficiencies and their cumulative effect on the society.

Taxonomy of Causes

The main reasons for the decline are related to shortfalls and drawbacks in the following five general areas, i.e.

- **Behavior and Community Matters**
- **Religion, Doctrine, and Practice**
- **Knowledge Acquisition and Use**
- **Governance, Politics, and Military**
- **Economy, Production, and Trade**

The deficiency areas (DA), shown in figure 22, have close interactions between them, i.e., a shortfall or deficiency existing in one area can affect the rest. One of the goals of the analysis process is to determine which particular deficiency areas have the largest number of deficiency factors.

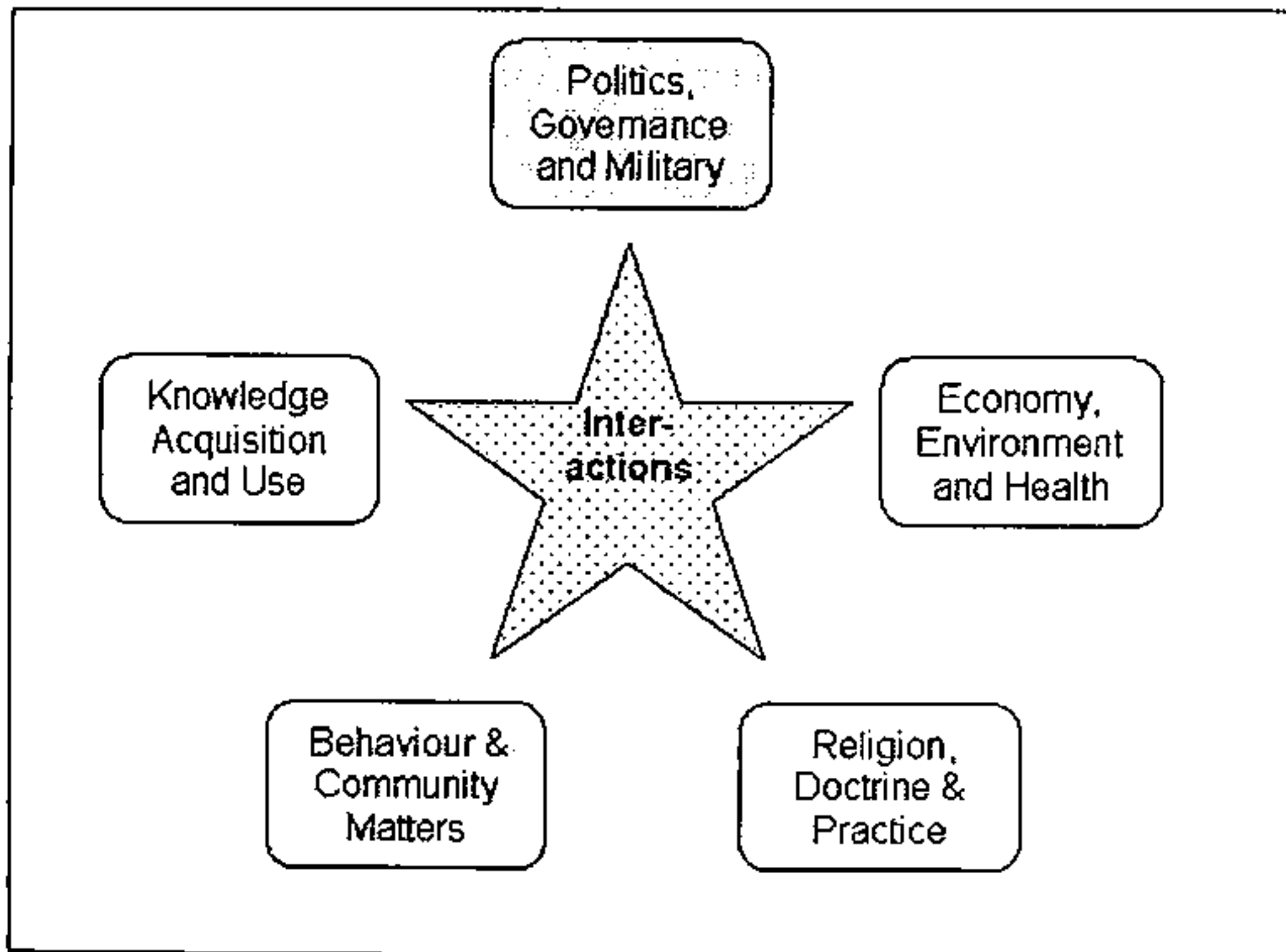


Figure 22: Main Areas of Deficiencies

Deficiency Areas, Subareas, and Factors

The deficiency areas given in figure 22 are too abstract for the purposes of analysis and should be expanded into something that is more substantive. With deduction and commonsense reasoning, it is possible to expand the areas into a number of deficiency

subareas (DS). For example, the first deficiency area titled "Behavior and Community Matters" can be expanded into subareas:

1. Personal Behavior and Attitude
2. Personal Belief System
3. Cultural and Social
4. Community and Gender

Each of these subareas can be further analyzed to uncover the elementary level deficiencies called deficiency factors (DF). For example, under the subarea "Personal Behavior and Attitude," we can list the following as the elementary level deficiency factors:

- Illiteracy
- Nonadherence to Islamic Principles
- Ethical Values Shortfall
- Personal Attitude
- Feudal-Thinking Style
- Transient Loyalties

Other deficiency areas can also be successively refined in a similar manner to arrive at their deficiency factors. It is these elementary factors that will be the subject of our detailed study, including the reasons for their inclusion and their effect on the deficiency areas and hence on the society at large. The hierarchy of the deficiency elements, areas, subareas, and factors are shown in figure 23.

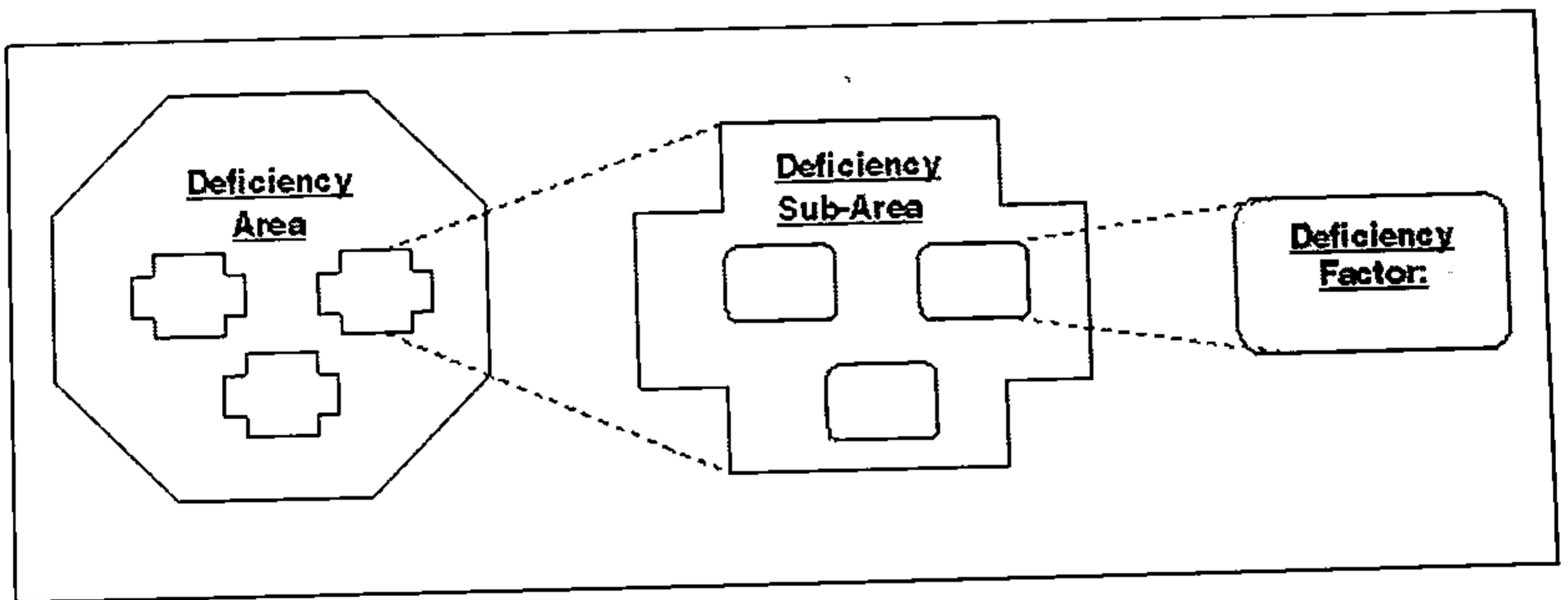


Figure 23: Hierarchy of Deficiency Elements

The reason for the adoption of this hierarchical arrangement is to divide a larger problem into manageable components that are more amenable to analysis. This can help us identify the major factors that merit immediate attention in order to plan for the process of improvement.

Presently, five deficiency areas, twenty-one subareas, and one hundred ten deficiency factors have been identified. It may be noted that these numbers are in no way absolute or final. They may change as a result of review by the subject matter experts.

Deficiency Areas and Subareas

As shown in the previous figure, the conversion of areas into factors is a two-stage activity. In this section, we will expand each of the five areas into their constituent subareas. The expansion of the subareas into their deficiency factors is described in chapters 5 to 8.

Behavior and Community Matters

This area is concerned with issues relating to individuals, their behavior, strength of their beliefs, cultural conventions along with other problems relating to groups of individuals and their attitude toward women and minorities. The following deficiency subareas are proposed:

1. **Personal Behavior and Attitude**
2. **Personal Belief System**
3. **Cultural and Social**
4. **Community and Gender**

Religion, Practice, and Dogma

This area relates to issues relating to the way religious teachings (Quran and Hadis) were imparted, learned, and understood. It also covers the role of religious scholars (*Ulema*) and the rulers in supporting a particular school of thought (*Maslak*) at various periods of the history. Other issues concerning rigidity, inflexibility, and parochialism also fall under this area. These issues resulted in growth of divisions within the Ummah and incidents of repressions, civil rebellions, and turmoil. This area can be expanded into deficiency subareas:

1. **Religious Dogma and Practice**
2. **Role of Ulema**

Knowledge Acquisition and Use

This important deficiency area relates to shortcomings in seeking, acquiring, and utilizing spiritual and secular knowledge by most members of the society. This shortcoming is surprising and inexcusable in the light of clear and multiple exhortations both in the Hadis and in the Quran. This area also covers lack of support by the state or the elite in evolving

mosque level madrassas into sophisticated institutions of learning. The concept of the madrassa was sound, but it did not or could not keep up with the changing circumstances. It is divided into the following subareas:

1. **Knowledge and Education Shortfall**
2. **Failure to Realize the Importance of Educational Institutions**

Politics, Governance, and Military

This is a critical area whose shortcomings have been largely responsible for the decline of the society. This area includes subareas that cover issues such as the way political power was exercised, the degradation of the consultative process as envisaged by the institution of Shura, the acceptance of the un-Islamic practice of dynastic monarchy, the unjust transfer of power through usurpation or intrigue, etc. This area is also concerned with drawbacks relating to arbitrary rule, lack of justice, and bad governance. The role of military and the shortfalls in the conduct of warfare are also included. It is divided into the following deficiency subareas:

1. **Political System**
2. **Betrayal and Lack of Commitment**
3. **Justice and Law and Order**
4. **Governance and Statecraft**
5. **Governance Institutions**
6. **Military and Warfare**
7. **Diplomacy**

Economy, Environment, and Health

This deficiency area relates to shortfalls in the field of economy, trade, and manufacturing. Also included are the problems due to the lack of governance infrastructure required for the exercise of power over vast distances of the Muslim state. Resource issues, such as lack of metals, timber, water resources, and fuel needed for the economy, agriculture, and military, are also included. So are the issues of public health and the handling of epidemics. It is divided into the following subareas:

1. **Economic Stagnation**
2. **Transportation and Infrastructure**
3. **Manufacturing and Technology**
4. **Environment and Resource Problems**
5. **Agricultural Problems**
6. **Public Health**

Relationships between the Deficiency Elements

The deficiency areas and subareas have been identified in the previous section. cursory study will show that these deficiency elements are not independent but are dependent on others. A positive or negative change (improvement or degradation) in one element can affect others, directly or indirectly. For example, a shortcoming in the area of politics, governance, and military will directly affect areas of economics, environment, and health and indirectly other areas as well.

These interrelationships are complicated, and graphical means are needed to show the interactions. The deficiency interaction diagram of figure 24 shows the major dependencies between the five areas and their subareas. The main objective of this diagram is to identify crucial subareas and to make these the prime target for the application of improvement policies.

The arcs depict the flow of effects between the elements (nodes). Some flows can be stronger than others, which are represented by the relative thicknesses of the arcs. For example, any shortcoming in the knowledge subarea can have a severe and direct effect on the economy as well as in the proper understanding of religious matters.

This diagram can be further refined and made more accurate by expanding each subarea block into its constituent deficiency factors along with the local interactions, but this would make it overly complicated and unclear, defeating its purpose.

In general, a deficiency can also be viewed as "lack of goodness." If we were to decrease the degree of deficiency for some factor, it should result in the increase of the "goodness" in one or more areas. If such factors are judiciously identified and improvements made, then it is possible to accentuate the overall effect through export to other areas.

We can expect improvement to the system if the improvement policies can result in diminishing or eliminating the deleterious effects. We can expect even more improvement if we can turn a deficiency on its head and convert into an asset. Such assets can then be used for planning the betterment of the Muslim society.

The main benefits of the deficiency interaction diagram are

- It allows the interactions to be graphically represented for help in understanding.
- It is flexible. It allows the pathways between the factors to be changed.
- Most importantly, it may be possible to transform the deficiency interaction diagram into a plan for the improvement and renaissance of the Muslim societies through

- Investigation and quantification of the effects of deficiencies
- Formulation and implementation of policies that would
 - Inhibit the flow of deficiencies between the subareas.
(This can be represented by making arcs to be of reduced thicknesses.)
 - Sign reversal of deficiencies and their conversion into capabilities or assets.
(The flows between the nodes will have positive and reinforcing effect.)
 - Eliminate deficiencies altogether.
(The arcs will cease to exist and can be removed altogether.)

Interactions between Deficiency Subareas

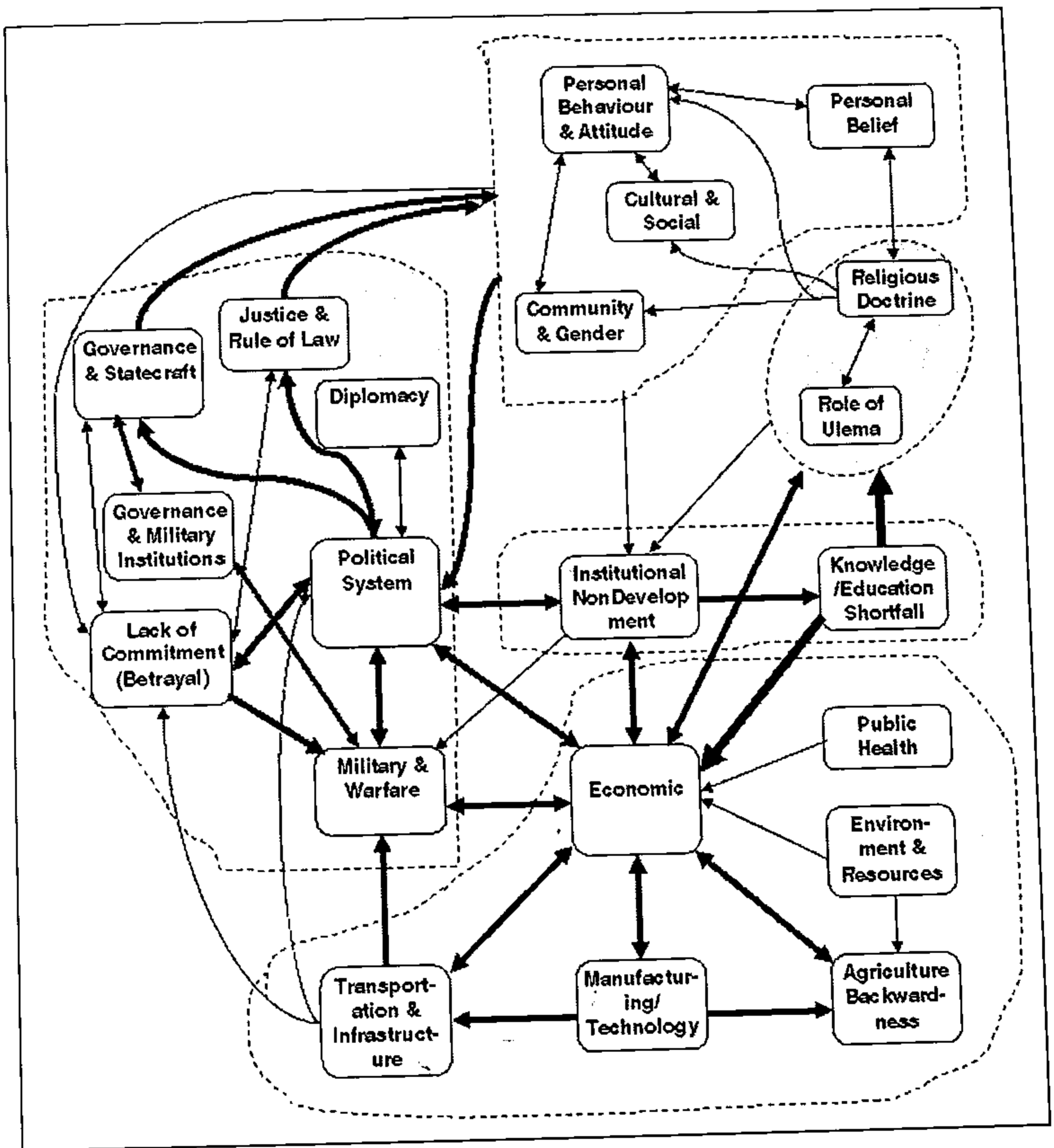


Figure 24: Interaction between Deficiency Subareas

The Metaproblem

We have to investigate the reasons of the emergence of deficiencies in the system. How did the deficiencies creep into the system, were allowed to grow unchecked and not corrected before damage could be done? There is a metaproblem that is common to all the levels in the system, i.e., the areas, the subareas, and the deficiency factors. It is associated with the following nine issues:

- o What were the drawbacks that allowed minor errors and aberrations to aggregate and then appear in the form of tangible deficiencies?
- o Were these faults ever present (endemic) in the system, acquired, or could these be viewed as a necessary part of the decay process?
- o Why was it not possible to anticipate and foresee their emergence?
- o Were the deficiencies interrelated?
- o Why were the deficiencies not detected in time before they could do discernable harm?
- o Why were corrective actions not proposed that could undo their effects or lead to their elimination altogether?
- o In case corrective solutions were proposed, were they planned in isolation or in a coordinated manner?
- o In case corrective actions were taken, were they implemented in a timely or coordinated manner?
- o Were there any side effects related to corrective actions that could potentially do more harm than good in the long run?

Let us illustrate the metaproblem with the help of an example. Taking the case of the subarea of personal belief and attitude, the infrastructural, attitudinal, and cultural underpinnings may have given rise to the "illiteracy" and "ethical values shortfall" deficiency factors. It would have been very difficult to change attitudinal behavior that was ingrained in the psyche at the individual and at the community level. Many of these deficiency factors were interrelated requiring an integrated approach to the planning, design, and coordinated execution of corrective actions. The same issues are also applicable in the areas of governance, politics, military matters, and succession.

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Chapter 4

Deficiency Area: Behavior and Community Matters

The deficiency area of behavior and community matters can be split up into the following subareas:

- 1) **Personal Behavior and Attitude**
- 2) **Personal Belief**
- 3) **Cultural and Social**
- 4) **Community and Gender**

Each of these subareas will be expanded into the constituent deficiency factors.

a. Personal Behavior and Attitude

This subarea is concerned with shortcomings at the personal level. These deficiencies relate to the basic building blocks of the society and are of major importance. Since these deficiencies are associated with so many people, even a slight improvement will be amplified many times over and can have a much greater impact on the society. Sadly, the converse is also true.

1. Illiteracy

For all Muslim men and women, illiteracy cannot be condoned especially in the light of clear exhortations in the Quran (first revealed *Surah*) and in Hadis (seek knowledge, even in China) and as exemplary directives of the Holy Prophet (prisoners of war to be released if they can teach). Noncompliance of this clear directive cannot be attributed to a single source as all levels of society were and are equally involved in this oversight.

Illiteracy has led to the lack of understanding about *Deen* (religious) or *Duniya* (secular or worldly) knowledge at all levels of society and has severely obstructed its progress so far.

2. Nonadherence to Islamic Principles

This deficiency factor is associated with the lack of appreciation of the importance of prioritizing Islamic principles of rights of Allah and rights of others (Haquq ul Allah and Haquq ul Ibad), especially in terms of

- *Imaniyaat*: Belief related—formal declaration of faith and unstinting belief in it
- *Ibadaat*: Rituals—prayers, fasting, almsgiving, and hajj
- *Akhlaqiyaat*: Good Behavior—toward human beings and all things created
- *Muamalaat*: Dealings—obligations made through verbal or written promises or contracts
- *Muashirat*: Care of the society and carrying out the obligations toward it

The objective of adherence to the above principles is for the enhancement of piety and forbearance i.e., *Taqwa*, that is the central theme of the faith. Nonadherence to these principles over the years has resulted in problems at the personal, communal and societal levels in the form of

1. weakness of faith
2. negligence and insincerity in the performance of the rituals
3. uncontrolled greed and selfishness
4. fractured society
5. propensity toward a life of luxury for those with an opportunity

3. Ethical Values Shortfall

This factor manifested itself right after Khilafat-i-Rashida and has continued unabated since then. It implies the following:

- absence of sincerity in whatever one thinks or does (absence of *Khuloos-i-Niyat*)
- elevating self-interest above those of the rest without regard to the ultimate “cost” to the society (and by implication, in the long run, to the “self” as well)
- neglect of pursuit of real (religious and secular) knowledge

4. Attitude Issues

Most of the early Muslims were endowed with admirable personal qualities such as offering hospitality and generosity to total strangers, their ability to withstand extreme hardships, a deep sense of sacrifice in the face of clear objectives, loyalty to the tribe, commitment to the preservation of its honor, self-sufficiency, and a high degree of self-respect (*Ghairat*), i.e., not asking for help even under dire circumstances. Such positive qualities were instrumental in the rapid growth of the Muslim society and the Ummah.

With the passage of years, these qualities got eroded resulting in many harmful traits that crept into the social fabric, including

1. Character Traits

- lack of discipline
- dereliction of duty
- lack of punctuality
- suspicion about motives of others

2. Abandonment of Principles

This trait has caused immense harm to the fabric of Muslim society. It has existed despite clear injunction in the Quran, Hadis, and Sunnah for honesty (speaking of truth, preservation of trusts, etc.) even at times of extreme distress. The main reason for abandonment of principles has been expediency and for obtaining gains, howsoever transitory:

- Personal Level
For the acquisition of personal gains at the expense of the rights of others. (Note: Under extreme circumstances, some schools of thought permit the expedient practice of *Taqqaiyah*, under which an individual is allowed not to divulge the whole truth.)
- Establishment Level
In the form of usurpation of public funds, granting or getting undue favors, withholding due rights, etc.

3. Disdain of Physical Labor

In the feudal culture, any physical or manual work was regarded as demeaning or beneath their station. The only exception being activities related to beaux arts. This trait was emulated by anyone whenever provided with an opportunity. This led to the perpetuation of the feudal outlook, lethargy, and inefficiencies. Its most harmful effect was on agricultural productivity and the development of mechanical trades, tools, and implements.

4. High Levels of Ego

Elevated and unchecked levels of personal ego can obstruct a person to be a useful team member and is counterproductive. Expression of personal ego in any form does not allow the team to gel as a cohesive unit and impedes the realization of its full potential. Teams where egos are kept in check produce a win-win situation for everybody.

(There is a verse in the Quran that extols unity and to collectively hold the "rope" [and not letting other considerations come in the way].)

5. Tendency toward Rhetoricism

Arabic language has undeniable richness and beauty. A ninth-century Christian scholar of Cordoba complained that Christian lawyers were intoxicated by the eloquence of the language (Ref: PR). Practitioners of the Arabic language could be easily swayed by the power of its eloquence (*Balaghat*) and, unless careful, trapped into its linguistic excesses such as exaggeration and hyperbole (*Mubaligha*), repetition, or overassertion. Over time, this practice became part of the acceptable discourse that led to imprecise evaluation of the facts or masked the true state of affairs, especially during times of distress and warfare. This also gave rise to confusion that affected dealings and contracts (*Muamalaat*).

6. Reactive Attitude

This deficiency factor relates to propensity for lethargy and inactivity. It shows lack of proactivity in which the occurrence of external events prompts somebody to do something or nothing at all. It implies lack of preparation in handling events. Reactive attitude has given rise to fatalism and helplessness. Hard times or calamities are viewed as events preordained under Kismet.

(Note: There is ample evidence of this trait being in full force even today not only at the personal but even more so at the governmental level.)

7. Selfishness

Selfishness for oneself or his immediate family is of supreme importance if it entails suppression of other people's rights, property, or risk to their life.

Note: There is an anecdote in Hitti's book *History of the Arabs* about a Bedouin who prayed for grace of Allah to be bestowed upon the Holy Prophet and his family as well as upon him and his own family *to the exclusion of all others*. It illustrates the selfish attitude and the erroneous belief that even Allah's bounty is limited and that only a limited number of people should share that, lest it gets depleted.

8. Opportunism

This trait is another example of expediency for the sake of personal gain. Individuals or groups may abandon their principles of faith, override other people's rights (*Haquq ul Ibad*), and violate agreements (*Muamalaat*) at the first opportunity. Depending on the level, the ill effects of opportunism fractured the family unit and the community group or even harmed the state.

9. Deference to Power

It has been observed (Ref: PR) that the submissiveness and obedience (of the Bedouin) is often the result of the material and physical superiority of the ruler. The populace felt secure under the tutelage of a strong and even cruel ruler. It

was difficult for the populace to remain docile under a weak or hesitant ruler. Passivity and lack of protest by the populace gradually led to the emergence of a culture of extreme severity by the rulers.

5. Feudal Attitude

Feudal attitude has been and is an endemic trait in the Eastern societies. During the early Islamic period, due to the egalitarianism taught by the Holy Prophet, it remained suppressed. The message of democracy enunciated by the last sermon of the Holy Prophet and practiced during the Khilafat-i-Rashida period, especially during Hazrat Omar's reign, was soon forgotten; and this trait raised its head. Its unbridled influence and practice led to the

- repression of the common man leading to injustice and cruelty
- love of ostentation and luxury
- disregard of sensitivities of have-nots
- lack of empowerment of subject people
- high level of ego and complacency leading to severe erosion of unity
- intolerance of differing opinions or expressions
- consolidation of wealth in few hands

6. Fragile Loyalties

The matter of fragile loyalties and selling out to highest bidders for personal gains has been a constant feature in the history of Muslim societies, causing great damage. This attitude was driven by selfish, parochial, survival, usurpal of power, or financial interests. In the most blatant cases, Muslims even switched loyalties to non-Muslim rulers for the sake of their transitory and mostly fleeting gains (a practice that is still ongoing).

History is replete with cases of transient loyalties relating to court intrigues, rebellions, and withdrawal of support by the officer corps at critical junctures right on the battlefield, (appendix 5). (Note: It has been so pervasive that it lingers on today not only at the political but also at the social and family levels.)

7. Enduring Enmities

The Holy Prophet forbade the continuance of tribal and familial enmities melding the people into one organic entity. With the passage of time, the age-old vendettas reemerged that overrode the need for unity in the face of a common enemy. In such trying times, many Muslims found it extremely difficult to rise above their personal and tribal dissensions and achieve unity, even temporarily. In many cases, not surprisingly, the enemy used this

fissure to his advantage to the detriment and eventual defeat of both the factions. One does not need to be reminded that even today this tendency is extant and in full force.

8. Ritualized Negotiations

For resolution of disputes, short of open warfare, early Muslim people relied on the negotiated settlement through mediation through a third party or through face-to-face deliberations. More often than not, these were not done in good faith to gain agreement but rather to ascertain the bargaining position in order to extract maximum concessions out of the adversary without giving anything substantive in return. More often than not, such deliberations did not result in lasting agreements. Mediation met with limited success due to the prolonged interaction via the third party and the ever-present risk of misunderstanding.

The drawback of face-to-face conferences was that in the absence of will for a solution, these could irreparably break down in the face of trivial violations of protocol. Usually what the parties could agree upon was to put off the decision making to a later date when each party thought that they could gain an upper hand. Although deliberations continued over many sessions, real progress was very slow. This sapped the patience of both parties that eventually led to open conflict.

Over the years, the strategy of ritualized negotiations got ingrained in the cultural psyche; and to this day, we can see its aftereffects in the form of conferences of OIC (Organization of Islamic Countries), the Arab League, and others that fail to deliver or act every time they are supposed to.

9. Lack of Teamwork

The Holy Prophet realized the importance of teamwork and brotherhood in synergizing the capabilities of members toward developing the nascent Islamic society and promoted it for various projects during times of peace or war. This was a democratic approach to problem solution. In an ideal situation, teamwork provides multiplicative synergy where the net output of the team is not the sum total of the capabilities of its members; it is rather the product of their capabilities, an enormous advantage. The multiplicative effect is present because the team members not only learn from each other to improve their performance but also facilitate other members to carry out their own functions much more efficiently.

Witness the excellent teamwork shown during the Battle of the Trench and countless campaigns thereafter. There are also exhortations in the Quran that ordained unity of approach and teamwork. Hadis and Sunnah describe rules on how to elect a team leader, how to consult with each other, how to respect other people's opinions, and how to suppress personal egos.

In the later years, as the Muslims drifted away from religion, their team spirit continued to decline likewise. By the fourteenth century, it had declined so much that led Ibn Khaldun to observe:

Because of their savagery, the Arabs are the least willing of nations to subordinate themselves to each other as they are rude, proud, ambitious, and eager to be the leader, but when there is religion (among them) through prophecy or sainthood, then they have some restraining influence on themselves. (Refs: EG, Ibn Khaldun, translated by F. Rosenthal)

With the advent of dynastic rule, teamwork was replaced by edicts and commands. The teams, if any, were found wanting in respect of selfless leadership, sincerity of approach, and objectivity. Failure to realize the beneficial effects of teamwork after the initial period influenced the Muslim societies in more ways than one. On the other hand, teamwork was evolving and flourishing in the European societies at the institutional, economic, and military level as they entered the glorious age of Renaissance.

b. Personal Belief

This deficiency area deals with matters of personal belief and practice. Over the course of time, many harmful notions and practices crept into the system of belief. This was mainly due to the lack of understanding or erroneous interpretation of the tenets of faith by individuals or some of the scholars. It gave rise to passivity and blind acceptances as well as ascribing undue weightage to minor matters of rituals.

1. Acceptance of the Notion of *Taqdeer*

Individuals when faced with happenings over which initially they had little or no control tried to hide behind the prop of preordination, *Kismet* or *Taqdeer*. This was and still is especially true in case of adversities, termed as "bad luck," and cited as the main reason for inaction to mitigate it.

In order to justify their lack of action and empowerment, the only recourse the populace had was the observance of patience or *Sabr*. This solution was overused and in most situations prolonged the adversity, due to inactivity. Rather than offering resistance, it gave the offending party an open license to commit an endless spiral of atrocities, because of the absence of any reaction.

2. Adherence to *Taqleed*

This deficiency factor implied blindly following a religious leader without verifying his antecedents or scrutinizing his message. The main reason was that the populace was not

knowledgeable enough unwilling or even lethargic to be doing self-study of the Quran or the Sunnah. In some cases, the religious leader had his own hidden agenda that gave rise to *Fitna* and the sprouting of numerous sects that divided the society and led to rebellion, wars, and atrocities. For example, the emergence of Kharajis, Qaramites, Ismaili Hashashins (Assassins), and others (Ref: JAQ).

3. Undue Importance to Minor Matters of Rituals

The assignment of importance to the way some minor matters of rituals (*Ibadaat*) were performed by different people also contributed to divisions within the society. These related to the dress code; dietary rules; variation in practices in the preparation for performing *Salat*, *Siyam*; etc. The manner in which these rituals were practiced contributed to the proliferation of sects.

4. Thoughtless Use of the Term "Bidaa"

The term "Bidaa" refers to innovation mainly in the basic precepts of faith. There has been a thoughtless overuse of the term "Bidaa" to matters where it was not necessary. *Bidaa* was intended to prevent drastic changes to the system of belief and practice of Islam. It was not intended or supposed to cover worldly or secular issues such as designing a new weapon, teaching new subjects, using a new means of transport, selecting officials or representatives, etc. There is even a Hadis in Sahih Muslim in which the Holy Prophet encourages "good" innovations (*Bidaa Hasanah*) to be undertaken and adopted (Ref: KNH).

Islam provided rational process for providing solutions to issues that were partially explained or not mentioned in the Quran, the Hadis, or the Sunnah. This included resorting to consensus (*Ijma-i-Ummah*) or extrapolation (*Qiyas*). These last two practices were open to different interpretations by different people at different times that made it difficult to arrive at consensus.

In the absence of consensus, any interpretation that was not to the liking of others was labelled as innovation or Bidaa from the true faith and hence liable to formal rejection of its proponents and adherents. If the other party was powerful, it could urge upon and connive with the ruler to award extreme punishments. Thus, an inordinate amount of (creative) energy of the society was squandered in fighting useless battles. Indiscriminate labelling also impeded the economic and social evolution of society and the establishment of *Ijtihad* in matters of faith where it was most needed.

c. Cultural and Social

The drawbacks associated with the cultural and social issues had a big impact on the society. These did not let the society to coalesce as harmonious entity with unity of

purpose and a common cultural outlook. The deficiency subarea discusses issues such as tribalism, racialism, slavery, and feudalism.

1. Continuance of Tribalism

The faith proclaimed complete equality of all people irrespective of their race, origin, or social standing. It desired the complete elimination of tribalism and practices such as granting of favors to fellow tribesmen while withholding it for others. Tribalism was entrenched in the pre-Islamic Jahiliya culture. Tribal considerations were held in abeyance during the Holy Prophet's times but reappeared just before the end of Khilafat-i-Rashida. Resuscitated tribal antagonism was one of the factors that gave rise to bloody civil wars between the Umayyads and the Quraish. Later it became an acceptable behavior. Its aftereffects are still with us today. Continuance of tribalism has caused immense damage to the body politic of the Muslim society.

2. Nonsuppression of Racialism

Early conquests brought an increasing number of people belonging to different races within the fold of Islam. These people rightly expected to be treated at par with other Muslims, but in many cases, they were not. The message of the last sermon, i.e., equality between the Arab and non-Arab in Islam, was not adhered to; and a hierarchy was created affording different levels of treatment and privileges based on race, origin, and seniority in terms of conversion.

For example, Muslims came to be prioritized as Quraish Arab, other Arabs and *Ajamis* (Berbers, Iranian, Turkish, Indian, Africans). For Arabs, in particular such discrimination proved harmful in the long run causing the setting up of race-based dynasties such as Turkish Seljuqs and Mamluks, Persian-speaking Buyids, and North African Berbers.

3. Slow Pace of Elimination of Slavery

Islam envisaged the complete elimination of slavery in all forms. The pace of this process was supposed to be rapid. Islamic injunctions stipulated freeing of the slaves as redemption for small transgressions. Many of the conquered people were deemed to be slaves (male and female), and in some cases, their status remained unchanged even after conversion to Islam. This was due to financial or other considerations. It is not easily explainable why this practice was not frowned upon by the rulers or even the Ulema.

Slavery caused undue hardships and resentment. Eventually they reacted with rebellions, which the rulers could not extinguish. Later slaves become powerful enough to occupy positions of power in the government and eventually usurped the throne. For the sake of aggrandizement, the Ottoman dynasty, instead of doing away with the awful practice,

institutionalized slavery on a formal basis. The Mamluk dynasty of Egypt, who themselves used to be slaves, began to import eastern European slaves from the Byzantine Empire as well as from sub-Saharan Africa. The practice of slavery became lucrative for Arab merchants when they became willing partners in the abominable slave trade of the English to meet the labor needs of North America.

4. Acquiescence and Tolerance of Feudalism

The pre-Islamic tribes were mostly autonomous, and their leaders came from within. This system was different from that in conquered lands where unadulterated feudalism existed. There the feudal lord exploited his serfs and treated them as slaves. Islam as an egalitarian faith was against the institution of feudalism. As more lands were conquered, for the sake of continuity, expediency, and ease in revenue gathering, the existing feudal structures were left intact. This state of affairs left unchecked got entrenched and became as powerful as to challenge the central authority. This gave rise to rebellions of all sorts and wastage of resources in their quelling.

d. Community and Gender

Community and gender-related issues are concerned with lack of empowerment and social cover for the needy, absence of teamwork, and most importantly the position of women in the community. The drawbacks in this subarea also had deleterious effects on the society.

1. Community Level Empowerment Shortfall

Most communities were under the jurisdiction of the local governor. In many cases, he began to behave like a feudal lord. The communities were not empowered to have a say in matters of taxation, economy, administration, or justice. Owing to fear of reprisals and the vast distances involved, their voices could not reach the capital. Thus, communities were left at the mercy of the governor, and they did not enjoy freedom of action for improving their lot.

2. Deterioration of Social Cover for the Underprivileged

The purpose of the central treasury, Bait ul Mal, was to meet the state expenses as well as the social needs of the underprivileged. As trustee, the ruler was accountable how the monies were spent; and under the Righteous Caliphs, a common person could stand up and ask questions. Over time, the rulers became autocratic and came to regard themselves above the law. They began to spend the treasury's resources for their own pleasure, depriving the poor and needy of their legitimate rights under the tenets of the faith. During the early days, the poor and needy relied on the Bait ul Mal for assistance

due to the paucity of the zakat funds because there were not many people wealthy enough to pay the zakat.

3. Status of Women

This is a topic big enough to merit a separate document. In brief, Islam granted full rights of citizenship to women, including that of holding property, running a business, obtaining education, exercising franchise and freedom of movement, etc., at the same level as men. These rights were enjoined and demonstrated by the Holy Prophet through his sayings and deeds. With the passage of time, these rights got eroded on pretexts such as stopping vice, protecting the weaker sex, preserving the integrity and honor of the family, etc. The net result was that women were not accorded the status they deserved that would have allowed them to improve the level of knowledge and economy of the society.

Disempowerment of Women

The cumulative effect of the disempowerment and forceful confinement of women to their homes rendered half of the population to be ineffective in matters of state, politics, economy, and as useful contributors to the knowledge level of the community. In doing so, the society failed to realize the enormous benefits that could occur through empowerment of women, indicated by the following examples:

- hiring of Mohammad (PBUH) by Hazrat Khadija for managing her trading business
- Hazrat Ayesha, Rabiya Basri, and others for their scholarly contributions

Overprotection and Veils

In the early days of Islam, the women worked side by side with men in most enterprises including agriculture, commerce, and even on the battlefield. The practice of veiling of women crept into the Muslim culture at a much later date. It came into vogue after the establishment of garrison towns in the newly conquered territories of Iraq, Iran, and Syria (Ref: HPM, p. 545).

The perceived insecurity in the newly founded border towns with mixed population of Muslim Arabs and non-Arabs (*Mawalis*) and non-Muslims, coupled with the lack of women population there, influenced the policy of seclusion and the veiling of women. The women were confined to their homes and had to adopt a dress code that went far beyond what has been envisaged in the Quran and the Sunnah.

This led to the overprotection of women and curtailment of their freedom of movement. Eventually, half of the potential workforce was deprived of the opportunity to seek

education, engage in gainful employment, or bring up children that were educated. The ill effects of this practice continue to stymie our societies to this day.

4. Marriage Practices and Customs

Practice of Dowry

Many pre-Islamic cultures had the institution of dowry. For most cultures in the Islamic lands, this involved the payment of money or kind by the groom to the bride's family while in some this was the converse. A third variation involved mutual exchange of gifts. These practices hindered and delayed marriages. Considerably long time was needed for the poorer people to accumulate sufficient resources to meet the expectations. The practice of multiple wives caused imbalance along with wastage of resources. All these factors caused social pressures to increase in the society.

Multiple Marriages

A misguided and insincere interpretation of Islamic rules legitimized the institution of multiple wives and along with an unlimited number of concubines⁷ for people rich enough to do that. This practice distorted and changed women's role from being equal partners and become sexual objects instead. Multiple marriages not only cast a shadow on the reputation of the people who indulged in this practice but also gave ammunition to non-Muslims to attack the faith. It also caused a feeling of resentment and envy among those young men who found it hard to find suitable matches.

This unbridled license for licentiousness was particularly harmful in the case of the royal family, where the presence of multiple sons from different wives generated an army of candidates vying for the sole position of the ruler-to-be. This gave rise to intrigues, rebellions, murders, civil wars, and connivance with the enemy for achieving their objectives. This in turn tore the fabric of the state and made the dynasties weaker with each round of succession that finally contributed to their complete collapse.

Cousin (Consanguinity) Marriages

The practice of cousin marriage was a convenient form of arranged marriage. It was preferred because marriage partners could be spoken for and marriages solemnized at any early age. More importantly, dowry resources could remain within the extended family. Undoubtedly, it enhanced loyalty to the tribe and kinship at the local level, but it

⁷ Although nominally slaves, both the concubine and her children were set free on the death of the master (Ref: PMH).

also negatively affected the sense of belonging to the society at large. It also had racial overtones and allowed the continuance of tribal, racial, and ethnic divisions.

Other drawbacks were that it limited the choice and overrode the wishes or the compatibility of partners resulting in forced marriages. The long-term side effects were in the form of congenital illnesses with attendant emotional drain on the family and the community.

Chapter 5

Deficiency Area: Religion, Doctrine, and Practice

This area of deficiency relates to the way religious teachings (Quran and Hadis) were projected, interpreted, and understood. It also deals with the role of Ulema and of the rulers in supporting one style of practice (*Maslak*) at the expense of others. Deficiencies in this subarea gave rise to inflexibility and parochialism that resulted in divisions within the Ummah and caused hardships for many notable personalities and even civil wars.

Before expanding these areas into the deficiency factors, it is necessary to understand some of the basic precepts and terms relating to Islamic jurisprudence. The reasons that led to the proliferation of religious sects are also described.

Overview of Islamic Law and Jurisprudence

As the society got larger, legal issues that came before the judges not only grew in number but also became more complex. There arose a need for codification of laws not only for the speedy resolutions of cases but also in an evenhanded way. This required research into sources of Islamic law and for a process of deriving the actual codes that the judges could use in a standard way.

The process of codification involved detailed study of the sources of law in order to obtain clear and unambiguous set of religious commands, termed "Sharia" (the clearly defined way). This set provided the baseline for the precise codification (*Fiqh*) of laws.

The main sources of Islamic Sharia are

- Quranic injunctions
- Sunnah and Hadis of the Holy Prophet
- consensus of the Ummah (*Ijma*)
- scholarly interpretation and analogy (*Qiyas*)
- unbiased opinion (*Raay*)

The need of times required legal codes relating to the following areas:

- rituals of faith: *Imaniyaat* and *Ibadaat*
- family and criminal law
- social behavior and contracts: *Muamalaat*
- aspects of constitutional law and governance

Reflecting their applicability, these codes were divided into categories of “obligatory,” “forbidden,” “recommended,” or “disliked,” (Ref: EG).

The codification process required interpretation and research by expert jurists. Since the sources were assumed to be the same, it was expected that the process would yield code that was also similar in intent and scope. In actual practice, there were many different colorations due to the differences in the dataset used for the Sharia, jurists’ method of compilation of information, reasoning, and interpretation. Most jurists referred to all the sources of Sharia while few relied only on Quran and Hadis.

Compilation of Hadis

In the later part of the eighth century (AD 750 onward), during the early Abbasid period, the need for codification became so urgent that five noted scholars came up with their own codification called *Madhabs* roughly at the same time. That required the aggregation and compilation of Hadis that till that time were only available in oral form and that from people who lived far apart. The process of the authentication of Hadis required the documentation of an unbroken chain of referees who were reliable and could vouch for the veracity that these were the exact words of the Holy Prophet. Each Hadis had to be graded according to its level of authentication, an exercise that took lot of research.

The process was long and cumbersome, necessitating long and arduous journeys by the compilers in their search for sources and the corroboration of their statements. The people spearheading this effort were mostly scholars of Persian origin. The names of six main compilers of Hadis called *Ashab-i-Sitta* and the total numbers of Hadis quoted by them is given in table 1. There are many instances when the same Hadis has been quoted by more than one compiler.

Table 1: Compilers of Hadis

Compiler	Bukhari d. AD 870	Muslim d. AD 875	Ibn Majja d. AD 886	Dawud d. AD 888	Tirmizi d. AD 900	Nesai d. AD 915
Number of Hadis	9,082	7,275	4,341	4,800	3,963	5,750

Other compilers of Hadis were Ahmad bin Hanbal, d. 870; Darimi, d. 885; Khuzaima, d. 942; Ibn Habban, d. 987; al-Hakim, d. 1039; Dariqutni, d. 1019; and Bayhaqi, d. 1094 (Ref: CKR).

Schools of Fiqh

The following are the law codes (*Fiqh*). The first four are for the Sunni Maslak, and the fifth is for the Shia *Maslak*.

- 1) Hanafi: after Imam Abu Hafina (699-767)
- 2) Malaki: after Imam Malik bin Anas (715-795)
- 3) Shaafii: after Imam Shaafii (died 820)
- 4) Hanbali: after Imam Ahmad bin Hanbal (died 780-855)
- 5) Jaafari: after Imam Jaafer al-Sadiq (died 765). Shia Imam, who was sixth in line that started from Hazrat Ali (RA). He was also noted for his work in medicine and astronomy (HW)

The Hanafi Madhabs is the most flexible and most widely followed. It was also adhered to by the Abbasids and the Ottomans. It even allows for the notion of unbiased opinion (*Raay*) to be used as a last resort in making decisions for problems whose solutions are not found elsewhere. The Malaki school, adopted in Umayyad Spain, encouraged the use of *Maslehat* (expediency for the sake of greater good) in achieving balance among competing requirements in the codification process.

The Shaafii school, adopted by Mamluks of Egypt, was the most liberal and most methodical in its approach; but it overrelied on the use of analogy and precedence when tackling new problems.

The Hanbali school, prevalent in Arabia, was the most orthodox one. It mainly relied on Quran and Sunnah and discouraged the use of analogy. It became the basis for later movements for conservatism initiated by Ibn Taymiyyah (AD 1263-1328) and Abd al-Wahhab (AD 1703-1792).

Other scholars who produced their own versions of Fiqh included Sufian Suri (d. 778), Abdur Rahman (d. 791), Lais bin Saad (d. 791), Abu Sau (d. 791), and Ibn Jarir Tabari (d. 922). These schools of Fiqh have now become obsolete due to the smaller number of adherents or assimilation into the traditional ones (Ref: WMH).

Fiqh Jaafariyah, adopted by the Safavids of Iran and also followed in India, became the standard code for the Twelver branch of the Shia Maslak. Shias regarded only the Holy Prophet's immediate family (*Ahle-Bait*) to be the sole and authentic transmitters of Sunnah and Hadis. They also regarded the imams to be endowed with special qualities of

deciphering the hidden messages in the Quran. They allowed the practice of Taqqaiyah (hiding truth when facing acute danger) and the notion of independent reasoning, *Ijtihad* (carried out only by recognized scholars called *Mujtahids*), that permitted reinterpretation of *Sharia* when dealing with new problems.

The Issue of Ijtihad

After the completion of the formal codification of the Islamic law in the tenth century, the scholars of the Sunni schools of Fiqh considered the work to be all comprehensive and perfect in all respects. As a result, at that time they saw no justification or room for independent reasoning and the reinterpretation of the Quran and Sunnah. They recommended the "closure of the doors of *Ijtihad*." It is probable that what they meant by "closure" was since all the issues related to the expression and rituals of faith, *Imaniyaat* and *Ibadaat*, were covered with reference to the companions (*Sahaba*) and their successors (*Taibeen*), there was no need to reopen those matters. To a large extent, this argument could also be applied to matters concerning family and criminal law.

Unfortunately, this was treated as a blanket prohibition extending even to other matters such as

- social behavior and contracts: Muamalaat
- aspects of constitutional law and governance
- social and societal matters: Muashirat

Due to the dynamics of the society, circumstances were changing rapidly, and new issues were cropping up. In many cases, the Ulema did not have access to ready-made solutions for such problems. The people had therefore to rely either on the edicts of the state or form their own opinion. The need of the hour was under the "doctrine of necessity" doors of *Ijtihad* should have been reopened. This situation surely merited a fresh approach and reinterpretation of the *Sharia* for new codification. Unfortunately, this was either done gingerly or not at all, which resulted in the Fiqh lagging much behind the needs of the time.

Development of Sects and Interest Groups

Islamic history is replete with the appearance of sects or faith groups. This was motivated by difference of opinion in matters of faith, politics, and philosophy specifically relating to

- familial considerations (*Ahle-Bait*)
- ultraconservatism
- escape into mysticism

- philosophical thought
- efforts for revivalism

Familial Considerations (*Ahle-Bait*)

Many Muslims were of the opinion that the members of the house of the Holy Prophet (*Ahle-Bait*) had an elevated status and deserved special treatment in all affairs of the state especially in succession. Instead of Hazrat Abu Bakr, Hazrat Ali should have acclaimed as the first caliph. This sowed the seeds of major division that later gave rise to the Shia sect. The schism was widened irreconcilably with the assassination (*Shahada*) of Hazrat Imam Hussain in brutal circumstances in AD 680. The feeling of deprivation of due rights of the *Ahle-Bait* and atrocities reinforced with the passage of time lead to civil wars that dented the Muslim society.

Later on, the Shia sect was further divided into Zaidis, Ismailis, and Asna-Ashris with further subdivisions into more than twenty-eight subsects (Ref: JAQ). There were many Shia dynasties, including Buyids (Baghdad, 945), Fatimids (Egypt, 969), Safavids (Iran, 1343 onward) along with three Abbasid rulers (al-Mamun, al-Mutasim, and al-Wathiq, 813-847) (Ref: WJ).

Ultraconservatism

One of the earliest ultraconservative sects to emerge was the Kharaji. They were puritans who wanted strict adherence to the Quran in all matters. They happen to disagree with Hazrat Ali's decision to accept arbitration with Emir Muawiya in AD 657 over the caliphate issue. This led to antagonism, open warfare, and Hazrat Ali's assassination. This sect was suppressed both by the Umayyads and the Abbasids but managed to get a foothold in North Africa for a period of time.

Escape into Mysticism

The Sufi movement filled the need to bridge the gap between the strict regime of the Fiqh rules and the introspective thinking and mysticism. The aim was to achieving unity with the creator through *Zikr* (recitation) and outwardly expression of love. Its early practitioner was Hasan Basri (d. 728). It became extremely popular at the frontier of Muslim lands where Muslims had to interact with people of other faiths. Due to its pacifistic approach, it won millions of adherents in India and the Far East. To this day it possesses great attraction for non-Muslims. It had many branches: *Silsilas* (ways) and *Tariqahs* (schools) named after their proponents, notable being Abdul Qadir Jilani (d. 1166), Suhrawardi (d. 1191), Ibn Arabi of Spain (d. 1240), Naqshbandi (d. 1389), and others. Some of these branches went a bit too far from traditional Islam in terms of their practices and beliefs. As a result, they had to face the disapproval and censure by mainstream scholars.

Philosophical Matters

The concept of "predestination" has been a classic problem in philosophy. It deals with the issue whether actions of an individual are "preordained" by the Creator or whether the individual is empowered to make choices in distinguishing between the good and the bad. This conundrum puts the whole concept of reward (*Jaza*) or punishment (*Saza*) into question.

Around AD 700, fed up with the atrocities of the early Umayyad caliphs, people including Hasan Basri and Wasil bin Ata began to question their actions. To this Caliph Abd al-Malik replied that since his accession to office as well as his actions were preordained, therefore, he could not be personally held responsible for their effects. In some respects, this is similar to the Roman and later European concept of the divine right of kings.

This illogical argument naturally was not acceptable to the people under oppression. It gave rise to the **Mutazila** movement which appealed to Muslims with rationalist frame of mind. Soon they began to debate and to apply reason on other matters of faith as well.

The issue that became the prime focus of their attention was whether Quran, the word of Allah, was a "thing" that was **created** just prior to its revelation (to cater to the current needs of the humankind) or whether as the word of Allah it has been there from a time indeterminate in the past (coexistent with Allah). The Mutazila began to promote the creed that the Quran was "created" (just in time) and not eternal (in the past). In this, they also got the support of the Shia sect, which was already opposed to the Umayyads.

During the time of the Abbasid caliphs al-Mamun, al-Mutasim, and al-Wathiq (who converted to Shia faith), the thesis of the just-in-time "created Quran" was officially proclaimed. Any judge or scholar who refused to accept the thesis was dismissed, goaled, and even tortured. The eminent scholar Imam Ahmad bin Hanbal on his refusal also met with the same fate but did not accept it until his last breath.

It was not the Mutazila message itself but the brutal way in which it was promulgated that brought their downfall. The Ashaari movement for countering Mutazila philosophy started in AD 935. Although retaining the rational approach of Mutazila, they also realized the limitations of the blind use of logic in every matter especially those of the faith. They added that Allah is not bound by what the logic says or predicts. The happening of an event predicted through logical reasoning is not guaranteed unless it is **willed by Allah**.

Imam Ghazali (d. 1111) and later Sufi scholars also ascribed to this school. The influence of Ghazali was profound as he was able to use sophisticated logic as a tool to highlight limitations of scientific rationalism in matters of faith.

In Ghazali, scientific logic, mystical piety, philosophical depth, legal pragmatism, strict obedience to the law and dogmatic dialectic were combined.
(Ref: EG)

Ibn Rushd (Averroes of Spain, d. 1198) proposed the notion of "double truth," that it is possible to arrive at truth either through the teachings of faith or through rational logic applied perfectly. In case of a nontrivial problem, the latter is not feasible since it is impossible to factor into all the processes and inputs (at the microscopic level and beyond) that are needed to explain the phenomena in the perfect sense. The problems of modern theoretical physics can be cited as an example of the difficulty.

Efforts for Revivalism

Sunnis were divided into subsects motivated by the desire for revival or geographical considerations. Their divisions were not that many or so intense. These subsects are generally the derivatives of the four Sunni Fiqh schools.

One of the first attempts for revivalism was by Ibn Taymiyyah (1263-1328), a follower of Imam Ahmad bin Hanbal, also an ultratraditionalist. Ibn Taymiyyah did not believe in the concept of *Ijma* (consensus) and as a result was against almost everybody: Shias, Sufis, all other sects, and even against Imam Ghazali, in his pursuit for Islamic Puritanism. He can be considered the precursor of puritan Wahhabi Sunni sects that emerged after the sixteenth century. His teaching inspired the thinking of Sheikh Ahmad Sirhindi (1564-1624) and Abd al-Wahhab (1703-1792) and Shah Waliullah (1702-63).

Other Sunni sects emerged from Sufism, for example, the Qadiriyyah school after Abdul Qadir Jilani (1077-1166) and Naqshbandi after Baha ud din Naqshbandi (1317-89). In modern times other Sunni schools of thought or practice have emerged: Ahle-Hadis, Salafis, Deobandis, Barelvīs, Zikris, etc. These numerous subdivisions are not helpful for the homogeneity of the society as they divert attention from the more pressing issues.

a. Religious Doctrine and the Role of Ulema

Before we discuss the deficiency factors for this subarea, we have to review the positive role that the Ulema (including Sufis) and the mullahs played in upholding the faith, spreading the word of Islam to the far corners of the known world, providing basic literacy, teaching about ritual practices, and meeting day-to-day spiritual needs of the people.

In Defense of the Beleaguered Ulema and the Mullahs

There is a tendency these days to apportion undue blame on the religious scholars, the Ulema (scholars) and especially the mullahs (the resident prayer leader of the community).

The basic charges are

- failure to convey, project, and teach the true Islamic principles to the Ummah
- kept the gullible Muslims preoccupied with trivial rituals
- responsible for the continued malaise of technological and scientific backwardness

For many years, the intelligentsia, the elites, and the ruling classes in Muslim societies have been scapegoating scholars especially the mullah as the source for the perceived ills of the society. They regard the mullah as the "bête noire" who can be smeared with any blame with complete impunity.

The mullah has been portrayed as an ignorant person who is able to perform only the superficial rituals and is unable or ill equipped to offer leadership in other matters. "Mullahism" is used as a derogatory term denoting narrow-mindedness, ignorance, and irrationalism. It is a euphemism for all that is wrong the way religion is portrayed and practiced in the society. Mullahism is even blamed for the existing educational and technological malaise and the main reason why Muslims could not make any progress in these fields after the thirteenth century.

Failure of the Ruling Classes, the Elite, and the Intelligentsia

Factual analysis (chapter 3) has shown that such allegations are baseless. It appears that casting the blame on the mullah is a subterfuge on the part of the elite to divert attention from their own substandard performance and immense failures over the centuries while enjoying unbridled authority over the populace. They themselves have been and still are mainly responsible for the innumerable military debacles, tyrannical rule, arrogance, criminal misgovernance, gross negligence of the welfare of the populace, total incompetence in the scientific and technical matters, and the resultant societal chaos. The question remains that apart from maintaining a luxurious lifestyle and usurping the rights of the have-nots, what have they been doing with the public exchequer for all these years? No amount of "passing the buck" pretexts can absolve them of their monumental shortcomings as they have practically nothing to show for in their fields of responsibility or purported specialization.

On the other hand, the Ulema or the mullahs did not stop anybody from not improving the system of irrigation, agriculture implements, engines of war, new accounting methods for commerce, road networks, wheeled or waterborne transport, or enhancing teamwork, and the list goes on. Simply put, it was not the mullah but the supposed specialists in these areas and the elite that were and still are found wanting. It is the latter's incompetence, which brought the Ummah to its present predicament.

There is another allegation that after eleventh century, the mullahs and the Ulema discouraged the acquisition or use of worldly knowledge, labelling that as useless and

unnecessary. In literal terms, this may be true. In reality, the Ulema were bemoaning the gross violations of the injunctions of the faith by the elite that gave rise to gross injustices, oppression, and rebellions. These were desperate times that rent asunder the social fabric of the society. For most people including the scholars, it had become a matter of utmost seriousness, that of survival or the preservation of life and liberty.

At this juncture, emphasis by the scholars on the relearning of faith and its ethical values should not be surprising. It was most probably a last-ditch attempt at social engineering and cleansing the society of its ills. Once a modicum of stability was achieved, only then it would have been possible for the talented people to engage in the esoteric and practical fields of knowledge. Analysis of historical data has shown that scientific and scholarly work can only thrive during times of relative peace and stability.

In the present stressful times, when all Muslim societies and countries are under siege, the intelligentsia in order to cover up their feudal outlook and nondemocratic norms have attacked the Ulema and the mullahs with renewed vigor. They are masquerading as the ones who are enlightened, democratic, and modern while in reality they are far removed from all of these finer qualities. In their struggle to hold on to the reins of power, they are trying enthusiastically to win sympathy and support of the West. The West seeing them as subservient clients or easy prey duly obliges.

There has been and is a huge gaping hole in the area of the provision of basic and well-rounded secular education in Muslim societies. This has been mainly due to gross negligence by the ruling classes and the elite. The question is why they did not take the steps to rectify the abysmal situation.

On the other hand, to the extent of their capabilities, the mullahs have been doing their job by providing a much-needed infrastructure where at least education in literacy and basic religious rituals has been and to this day is being offered at a very low cost to the society. The madrassas run mainly with local support and charity as endowments or trusts set up by the philanthropists.

Whereas madrassas are ubiquitous in every neighborhood and are fully open to all comers, rich or poor, we do not see the existence of good broad-based schools where modern and secular education is provided. Government-based institutions can be characterized with mismanagement, crumbling infrastructure, nonexistent laboratories, and motivationally challenged teachers. Private institutions that offer education in English (or French) cater to the needs of the elite and serve as a stepping stone for higher education abroad. Their exorbitant fees and entry requirements are purposefully designed to filter out the poorer students.

In the Western countries, many philanthropists set up trusts, foundations, and endowments for furthering the cause of education. This is especially true of the United States where

thousands of foundations, including the Rockefeller, the Ford, the Annenberg, etc., exist with budget running in the billions of dollars. Instead of bemoaning the shortcomings of the madrassa system, why don't the rich elite of Muslim states emulate these altruistic people and venture forward as a group? They can help establish state-of-the-art institutions where the ideas and methodologies relating to liberal arts, science, and technology of a broad spectrum of contributors such as Rumi, Kant, John Stuart Mill, al-Biruni, Enrico Fermi, Abdus Salam, or Bill Gates can be imparted to everybody. This is a difficult question, but it is worthy of introspection and immediate action.

Positive Role of the Ulema and the Mullahs

The Ulema and the mullahs had a special role in the society, which was to interpret the teachings of the Quran and the Sunnah and project these in comprehensible terms to the populace. Through the ubiquitous system of mosques and the seminaries, they kept alive the infrastructure for basic education that the state was unable or incapable of maintaining. Granted that the educational syllabi of the madrassas remained static and did not evolve with time, what else could they do when because of their squandering the ruling classes had little money or care left to support such ventures.

In addition, the Ulema and the mullahs provided a social safety net for the disadvantaged and helpless members of the society. The itinerant mullahs, Sufis, saints, and tradesmen spread the message of Islam to the farthest corners of the known world: from the rain forests of Vietnam to the riverine valleys of Ghana, from the banks of the Volga to the desert of Sahara. No one else but these people could have done such a monumental work.

Above all it was the Ulema and mullahs that came to the forefront in providing spiritual succor and support to the people and raise their morale in times of extreme distress and dark tragedy such as during the Crusades and after the Mongol invasion, when the state's protective mantle was torn apart and its institutions were in shambles or ceased to exist. The only types of institutions that manage to keep alive during these dark days were the mosque, the madrassa, and the seminary. These were the only shops left open in the town, and it is to these that the people turned up in droves for guidance and succor. It is not surprising why this is also true during these turbulent times.

In a period of material threats and political turmoil there arose in the community of Muslims an awareness that the unity and the continuation of the law and thereby the salvation of the believers were to be guaranteed not by the rulers who were locked in power conflicts (whether they were caliphs or the sultans of the invaders) but only by the teachers of the Sharia, the Ulema. Only they were viewed as the legitimate preservers of the faith according to the Sunnah.

(Ref: EG)

In doing so, the Ulema and the mullahs managed to preserve and sustain Islamic culture, its rituals, to the best extent that they could under the dire circumstances. Without their timely initiative, Islamic culture and way of life and practice would have practically vanished from the shrinking Islamic lands. It is through their efforts and example that some of the most virulent enemies were brought under the fold of Islam and who later became its ardent defenders.

This is not to say that the Ulema and the mullahs are entirely blameless. They too have many shortcomings. Before proceeding with the discussion of their defects, it is beneficial to summarize their positive contributions:

- o establishing, sustaining, and enlarging the institutions of the mosque, the madrassa, and the seminary
- o helping with literacy and providing religious and entry-level secular education to the children
- o providing spiritual and religious services to the community, including those related to the births, marriages, and deaths
- o providing social services to the community including helping the poor, the destitute, and the traveller
- o spreading the message of the faith to the far corners of the world, bringing a vast number of people under the fold of Islam
- o preserving and sustaining Islamic culture
- o providing support and succor to the shocked Muslim populace after whole-scale bloodbaths and carnage and in rebuilding their morale

b. Deficiency Factors: Role of the Ulema

The deficiency factors concerning the role of Ulema and mullahs are listed below:

- failure to oppose the unjust institution of the hereditary monarchy
- acquiescence of unjust policies and practices of the rulers (*Ulul Amr*)
- parochial or politically driven fatwas
- moving away from rationalism and Ijtihad
- overreliance on philosophy in tackling metaphysical problems
- lack of tolerance for differing points of view
- difficulties at achieving consensus
- dissipation of energies on nonproductive and trivial issues
- misinterpretation of Sunnah
- inappropriate use of the concept of *Bidaa* (innovation)
- failure to counteract the onslaught of western Orientalists
- neglect of missionary work in Europe

1. Failure to Oppose Hereditary Monarchy

Islam stands for justice in all matters, big or small. The institution of hereditary monarchy goes against the very grain of justice. If the qualifications of the rightly guided caliphs are considered, besides having a high level of *Taqwa*, they also possessed the best available balance in terms of other qualities such as knowledge of the faith and practice of justice, valor, administrative skills, and others. During the Khilafat-i-Rashida when the time came to select a new caliph who had to assume the mantle of the Holy Prophet, a number of qualified candidates were short-listed as candidates. A selection committee composed of persons with high integrity and repute was formed who after careful deliberation arrived at a consensus to elect the "best" person as the new caliph.

The hereditary system of transfer of power (first introduced by the Umayyad Emir Muawiya when he nominated his son Yazid to be the next caliph) does away with this democratic process altogether since only one person can be nominated by virtue of the accident of his birth and without regard to his capacity to meet the stringent requirements for the office. Theoretically, it is possible that this person may be the best of the lot, but this cannot always be guaranteed. There may be other persons who are much more suitable for the job, but they are denied the chance for not belonging to royalty. This system denies justice not only for the suitable candidate but also for the Ummah who deserve to be ruled by best possible person.

2. Acquiescence of Unjust Policies and Practices of the Rulers (*Ulul Amr*)

There has always been a minority of Ulema who due to their weaknesses, brutality of the rulers, or the attraction of the office and its benefits chose to side with the rulers. To cover their acquiescence, they cited Quranic verses regarding accepting and following the *Ulul Amr* (the one with power, if he happens to be from among you), irrespective of his qualifications or the manner of his ascendancy. Many Ulema acquiesced with the unjust policies and practices of the rulers just by remaining detached or silent thus legitimizing and prolonging injustice and misrule.

3. Parochial or Politically Driven Fatwas

By agreeing to be in the direct or indirect pay of the rulers, the Ulema were expected to deliver their side of the bargain in the form of legal sanction through supportive fatwas. This would provide a cloak of legitimacy to the actions of the ruler because if they did not, they risked loss of office or even worse. In many cases, these fatwas were unethical or premised on weak legal principles.

The authority of compliant Ulema was held in check by the rulers because they could not issue a fatwa proactively at their own volition. They could only do so when invited either by the ruler or by a provincial governor.

4. Moving Away from Rationalism and Ijtihad

The compilation of Hadis and the codification of Sharia law (Fiqh) were works of monumental magnitude done by the jurists of the ninth century. Sunni scholars regarded these works as "classic" requiring no further development and considered the "doors of the Ijtihad to be closed," perhaps forever. Instead, they wanted to focus on promulgation and consolidation of Fiqh in Muslim lands. This was most unfortunate since new laws were constantly needed for changing conditions and problems at hand, for example:

- political field
 - + validity of dynastic rule
 - + qualifications of the head of state
 - + transfer of power
 - + formation of the Majlis Shura
 - + governance
- economy: treasury, taxation, and trade
- organization of the military
- social matters
- education

The closed-door policy on Ijtihad had a disastrous effect on the Muslim society as new law codes could not be formed according to the changing circumstances that led to confusion, stagnation, and eventually chaos. Even if the new law codes were formulated and promulgated, these had the imprint of the current ruler's interests and edicts. Furthermore, these were not timely (appeared after the damage was done) or were transient (nullified by succeeding rulers).

As described earlier, the Mutazila movement in the beginning was an honest attempt to negate the notion of *Jabariyah* (predestination) (behind which the Umayyad rulers were hiding to cover their atrocities) by employing the force of logic and rationalism. Prima facie, it was an attempt to apply Ijtihad on a very pressing matter, i.e., unjust suppression of the people. This movement had the full support of the Shia who were among the main victims. Later on, it was not the doctrine of Mutazila but the way in which it was thrust down the throats of its opponents that devalued its appeal. Unwisely the proponents of Mutazila enlisted the support of three Shia-leaning Abbasid caliphs to commit atrocities upon the dissenters. These were blatantly irrational acts sanctioned or encouraged by supposedly rational people.

The Ashaariya movement grew because of disillusionment with the high-handedness of the Mutazila. Ashaariya scholars employing rational argumentation pointed out the fallacy behind blind reliance on Hellenic logic in all matters of faith. They encouraged

recourse to Ijma and Qiyas with a tilt toward mysticism and inner illumination (Gnosis). For transcendental and metaphysical problems such as predestination or the existence of God, they discouraged the use of Ijtihad saying that these were beyond the reach of man-made logic (Ref: VM). Since this became the official line, the doors of the use of rational logic were once again partially closed. Its side effect was that recourse to Ijtihad went out of fashion, thus depriving the Ummah of an important tool for solving emerging problems.

5. Overreliance on Philosophy in Tackling Metaphysical Problems

Muslim philosophers used faith-based approach in the classical problems of philosophy, including the transcendence of God, concept of His unity and immanence (monistic pantheism), explanation of His attributes, destiny of man (eschatology), interpretation (hermeneutics), theory of knowledge (epistemology), etc. Muslim philosophers not only adopted the Neoplatonic tradition of Aristotle but also made original contributions of their own.

Philosophical constructs and techniques do not have universal applicability. This inadequacy becomes evident when dealing with metaphysical problems such as the existence of God or the origin or the end of the universe and many others. Overreliance on philosophy led to absurd and harmful effects, for instance, when Mutazila philosophers tried to prove whether or not the word of Allah (Quran) was created by Him or when they tried to separate Allah's attributes from His being. It was most reprehensible that these philosophers condoned the use of state machinery in order to project their viewpoint. A lot of time was wasted, and many atrocities were committed due to the instigation of these irrational philosophers.

Many clear-sighted scholars turned away from using philosophy due to its inadequacy in the face of Allah's greatness and unknowability. They realized that Kalam and philosophy were puny tools for solving the "big riddle." Sufis were at the forefront of this approach. Abdul Qadir Jilani, a mystic philosopher, warned scholars to leave Allah's unfathomable scrutiny to Him. Poets Rumi and Jami both used the medium of lyrical poetry to convey the same message.

6. Lack of Tolerance for Differing Points of View

Difference of opinion in matters of religious dogma is normal and even welcome as it can contribute to the removal of defects essential for a progressive society. In Islamic history, lack of tolerance may be traceable to cultural, psychological, monetary, and philosophical reasons. What has been so damaging to the Muslim society is not the fact itself but the duration and intensity of difference and its tendency to get out of hand with disastrous consequences.

One of the reasons of continuance of the differences is the uncompromising stand by the Ulema may be ego based: loss of face or diminution of standing within their constituencies. According to A. A. Maududi, the Quran does not forbid difference of opinion.

Suffice to say that Quran is not against healthy difference of opinion in the interpretation of its injunctions provided that

- (a) There is agreement on the basic principles of Islam among those who differ and
- (b) They remain united within the fold of the Muslim community.

The Quran deprecates that kind of divergence that starts with self-worship and crookedness and leads to divergence and sectarianism. (Ref: MAA)

7. Difficulties at Reaching Consensus

Islam lays great emphasis at reaching decisions through discussions and compromise. The raison d'etre of Majlis Shura is to arrive at decisions to accommodate the viewpoints of maximum number of parties without comprising religious principles. Later on, the Islamic spirit of give and take and achieving consensus was severely diminished. Consensus was hard to come by as parties refused to budge from their fixed position or due to blockage by few recalcitrant members of the Shura. In many cases, such rigid positioning was based on factional, egoistic, and tribal considerations.

Lack of consensus on trivial matters of the faith and practice has been one of the prime causes of the Ummah splitting into many factions. Such action on part of the Ulema is even more reprehensible as they should have been the first to know the harmful and long-lasting consequences of their actions. Unfortunately such an outlook is present even now; examples include moon-sighting, rituals of prayers, fasting, zakat, etc.

Some Muslim scholars have tried to break the logjam by resorting to majority opinion. Ibrahim al-Nakhai (d. 713) and Hammad bin Abi Sulaiman (d. 738) of Kufa provided the theoretical justification of a ruling based on the majority opinion of important figures in case consensus is hard to come by (Ref: HPM).

It is hard to explain why this method was not used by the scholars in breaking deadlocks on the issues of Sharia and fatwas. Had that been done, then the principle of majority voting may have been taken root and may also have been adopted in matters of politics and governance.

8. Dissipation of Energies on Nonproductive and Trivial Issues

The Ulema expended lots of energy in highlighting or creating and debating on minor problems of Fiqh. In many cases, their stated goal of achieving purity of faith and

perfection in its execution were ruses for some hidden agenda. These include debates on whether or not Allah's attributes are anthropomorphic, Quran as a word is a "creation" (*Khalq-i-Quran*), collecting and debating on unsubstantiated anecdotes (*Rewayats*) related to the Prophet and his companions.

9. Misinterpretation of Sunnah

Certain Ulema encouraged blind adherence to Sunnah and rituals irrespective of the circumstances. This led to stagnation in matters of religious, social and personal lives of ordinary Muslims.

10. Inappropriate Use of the Concept of *Bidaa* (Innovation)

This concept originally intended for minimizing the influence of non-Muslim beliefs and rituals was unwittingly extended to include technological, scientific, and social practices to the extreme detriment of the Ummah. Even genuine differences of opinion or practice were immediately and thoughtlessly labelled as *Bidaa* (innovation), and the perpetrator being declared *Kafir* or *Zindiq* (heretic, irreligious, freethinker) was therefore entitled to the severest form of punishment ending in death. Fear of reprisals, therefore, discouraged the introduction of new ideas and good innovations (*Bidaa Hasana*).

11. Failure to Counteract Onslaught of Western Orientalists

European rulers and scholars were fascinated by the phenomenon of Islam and its unparalleled progress. They sent many emissaries, influential scholars (Orientalists), and travelers to the Muslim capitals and the hinterlands to investigate and report. During the period of the Crusades and the conflict in Spain, the Christian church realized the need to confront Islam at the spiritual level. In AD 1142, Peter the Cluny travelled to Toledo and urged scholars to study Islamic thought and produce polemical works refuting its tenets. This included Latin translation of the Quran in AD 1143 by Robert of Ketton and Peter's book *The Heresy of Islam* (Ref: EG).

Following this, an army of western "Orientalists" came into being who started full-scale propaganda warfare in order to inure the Christian people against Muslim thought. This full-scale scholastic assault on Muslims was not matched by Muslims, and no "Occidentalists" emerged who could counter this on equal terms. This was undoubtedly a major failure on the part of the Muslim world especially the Ulema.

12. Neglect of Missionary Work in Europe

It may be noted that the Holy Prophet, after the conquest of Mecca, sent invitation to the faith (*Dawah*) messages to the rulers of the day, including the Byzantine and the Persian

emperors. After the passing of the Holy Prophet, missionary work was carried out with full vigor to far-off lands and islands of Africa and Asia by the companions of the Holy Prophet, Sufis, saints, and traders. Unfortunately, Muslim missionaries were not sent in sufficient numbers to European lands to project the message of Islam.

On the other hand, in Spain, the emergence of the Dominican and Franciscan order signalled the onset of aggressive missionary work to the Muslim world. Raymond Lully, a Franciscan monk of Majorca, studied Arabic language and works of Averroes in order to engage Muslim scholars at their own turf. In 1291, inspired by his zeal, he travelled to Tunis on a missionary trip where he engaged in many debates. In 1311, he devised a detailed plan for the "conversion of Moors" for presentation at the Council of Venice. He met stiff opposition in Tunis that resulted in his death by stoning in 1315 (Ref: WCT).

Muslim scholars did not realize the importance of carrying the message of Islam to the inner reaches of Europe and neglected to work out plans for training and dispatch of missionaries.

Chapter 6

Deficiency Area:

Knowledge Acquisition and Use

After reaching its zenith in thirteenth century, Muslim societies went into state of decline. This was largely due to deficiencies in the area of knowledge acquisition that were instrumental in inhibiting Muslim societies from keeping pace with rapid development that was taking place in Europe. Deficiency can be categorized as

1. **Knowledge and Education Shortfall**
2. **Failure to Realize the Importance of Educational Institutions**

a. Knowledge and Education Shortfall

There are many reasons for this shortfall. The main ones are the definition and the scope of the word "Ilm" (knowledge) was made too constricted, there was a failure to educate masses or to engage in acquisition of advanced know-how. In addition, the madrassas and the universities as compared to the pre-Renaissance developments in Europe remained inadequate in terms of numbers and did not keep pace with the times in terms of quality.

1. Definition of the Term "Ilm" (Knowledge) Too Restrictive

In the early days, scholars regarded the term "knowledge" or "Ilm" as broad spectrum and multidisciplinary. A philosopher could be knowledgeable in religious sciences, law, and even in mathematics or medicine. Since religious subjects "Deeni Uloom" such as Fiqh and Hadis were based on revelation or the Sunnah, they were supposed to merit the greatest amount of attention. This emphasis was not out of place considering the need of the day and the volume of work required in high-standard documentation and codification of laws and regulations. This work resulted in the emergence of the following fields:

Types of Knowledge: Religious and Revealed

- *Usul ud Deen:* Principles of faith
- *Tafsir:* Quranic commentaries and explanations
- *Sharia:* Doctrine of revealed law
- *Fiqh:* Encoding of Sharia law (jurisprudence)
- *Hadis:* Compilation of the sayings of the Holy Prophet
- *Sirah:* Study of the Holy Prophet's way of life (as others saw it)
- *Tajweed:* Quranic recitation
- *Sarf-o-Nahw:* Quranic grammar, philology, and lexicography

- *Tasawwuf:* Transcendental interpretation of religious beliefs. Mystic approach to the articles of faith and practice. This was a form of escapism due to irreconcilability of the worldly constraints with those of the conscience. This appealed to credulous masses trying for a conflict-free existence.

- *Kalam:* Rational approach to the articles of faith. The basic motivation for Kalam was to make the doctrine of faith firm and fast against attacks by nonbelievers and heretical sects. These included Persian dualism (concept of force and antforce, yin and yang) and Christian Trinity. Later on proponents of Kalam added speculative reasoning and Greek philosophy to their tool set. As a result, three types of Kalam emerged:
 - **Apologetic:** Defensive approach toward explanation of the faith.
 - **Polemic:** Offensive approach for disproving opponent's viewpoint.
 - **Dialectic:** Argumentative approach and reasoning.

In some scholarly quarters, there arose a misconception that the revelation-based knowledge listed above was not only necessary but also sufficient. This type of thinking influenced some scholars to focus more on religious subjects to the detriment of "acquired" knowledge and worldly subjects (*Dunyavi Uloom*).

Difference in Methodology: Revealed vs. Acquired Knowledge

Research in the revealed and acquired knowledge required different approaches and methodologies. For revealed knowledge, scholars needed expertise in collection, authentication, classification, collation, codification, and interpretation of information. On the other hand, methodology for acquired or derived knowledge (*Uloom-e-Aqliyya*)

involved empirical observation, inquiry and experimentation, analysis, integration, and derivation of results. Even more so, it required freedom of inquiry, existence of basic infrastructure (institutions, libraries, workshops, etc.) along with teamwork and support.

Muslim scholars of seventh to the thirteenth century excelled in research in both these classes of knowledge. Later on, they lost the initiative and the leadership position in the secular knowledge mainly due to the lack of institutional and state support and an environment that repressed the spirit of free inquiry.

Once this became the norm, the scholars either on their own volition or due to specific circumstances began to move away from productive and useful fields of knowledge or vocational training and application. This resulted in suppression of the spirit of inquiry so vital for a dynamic society.

2. Inadequate Efforts in Knowledge Acquisition

The faith requires its adherents, irrespective of their gender, to acquire knowledge. One Hadis of the Holy Prophet exhorted Muslims to seek and acquire knowledge even if one has to go to "China." However, aimless acquisition of knowledge without its productive application is also derided. Another Hadis describes a well-read yet unproductive Alim to be the same as a donkey which although carrying a bundle of books on its back is unable to decipher them or make a productive use of their contents.

The Quran also exhorts the humankind to engage in *Taddabur*: Quran 13:2 (analysis, arrangement) and *Taffakur*: Quran 10:24 (reflection) on Allah's creations and their relationships.

The Quran also describes the extent of Allah's knowledge in human comprehensible terms daring them to unravel as much as within their prowess:

And if all the trees on the earth were pens and the sea (were ink to write) with seven seas to add to its (supplies), yet the Words of God would not be exhausted. (Quran 31:27)

There is another verse on the same topic, Quran 18:109. It cannot be denied that these verses are allegorical and are meant to convey the vastness and complexity of the grand design. Their literal interpretation cannot encompass the mysteries of all that He has created in all the universes. These are and will remain outside the scope of our imagination.

Pure Trivia

For the sake of curiosity, one should be allowed to indulge in its literal interpretation just to have a glimpse into the inestimability of His knowledge. The object of this

levity is not to say that these are the limits of the boundaries of God's knowledge but to illustrate the vast difference that exists between what the humankind have been challenged to uncover and what it has achieved so far. The purpose of this thought experiment, (*Gedanken*) is just to illustrate this point. No other conclusions should be drawn from the following calculations.

The volume of water in the world's oceans is enormous: 1.37×10^9 cubic kilometers (Ref: DA) (we also do not know how many worlds similar to ours exist out there; in which case that volume will have to be increased manyfold). If seven times of this amount were to be converted into ink (assuming the consumption of one cubic centimeter of ink for writing one hundred pages), then the total size of paper needed to consume that much ink would be a square with sides equal to one hundred light-years approximately. For purposes of scale, it is about the size of our own galaxy.

Suffice to say that these calculations are just illustrative and intended to convey the underlying message about the unfathomability of Allah's knowledge that encompasses the infinite variety of things that can be derived from the fundamental building elements, their extant forms, their behavior patterns, their interrelationships all inside a multidimensional space and time framework.

The big question is, how many "pages" of Allah's knowledge have been uncovered and understood in the last ten thousand years of known human history? The second question is, what has been the specific contribution made by the Muslim civilization and societies?

The answer to the first is "very small" and the second one "extremely minuscule" up to the thirteenth century and none whatsoever after that. These facts should lead us to a deep introspection.

3. Failure to Educate the Masses

One does not need to repeat the numerous sayings of the Holy Prophet exhorting all men and women to acquire ("travel as far as China if you have to") and to use knowledge ("a scholar who does not use his knowledge productively is akin to a donkey laden with books"). It is obvious that travel to China implied acquisition of secular knowledge.

Despite these clear directions, Muslim scholars, the elite, and the rulers failed to realize the importance of educating the masses. It continued in its embryonic form as mosque-based madrassas for teaching children basic literacy and articles of faith. The state did not set aside sufficient resources for the education infrastructure including

- universal education in all parts of the realm
- provision of secondary schools in major towns

- encouragement and scholarships for students seeking advanced knowledge
- inadequate number of teachers

Students keen to advance their education beyond the madrassa system had to undertake perilous journeys over vast distances in search of the proper teacher.

4. Low Literacy Levels

Literacy rate figures for the Muslim states are not readily available. For the ordinary people, literacy was limited to the reading of the Quran and related material. It can be presumed that awareness and knowledge about secular subjects remained low during this period. This can be attributed to the small number of madrassas and teachers, nonavailability of printed material, economic pressures, and above all the inadequate state support.

5. Obsolete Religious Syllabus (*Deeni Dars*)

The subjects taught in mosque-madrassas had emphasis on religious topics. In addition to basic literacy (child and adult), in early days it related to Quranic Tafsir (commentary), *Tajweed* (recitation), *Sarf* and *Nahw* (grammar, syntax, and philology), etc. Newer subjects began to be introduced according to developments in other fields such as Hadis and Fiqh.

Discussion groups in mosques started as early as AD 632 to explore merging of rational approach to the religious doctrine. It is likely that since the main participants of such discussions were the madrassa teachers, they would have influenced the direction of the course material.

The large-scale project to translate Greek manuscripts was initiated by Abbasid Caliph Mamun around 830. After that numerous books became available in Arabic including those by Euclid on geometry, Eratosthenes on mathematics, Galen on medicine, and Ptolemy on astronomy. This gave incentive to introduce Hellenic knowledge into the curriculum at higher-level madrassas such as Nizamiyah in Baghdad and in other major centers.

The syllabus remained extant for many centuries and emphasized Taqleed, i.e., following the path of classical knowledge. It enabled its students to become good prayer leaders and perform the basic rites, but it did not let them become conversant with Ijtihad or to do original research and scholarship into new problems facing the Ummah. The lack of integration with the social, legal, economic, and political issues of the day resulted in absence of guidance for the Ummah leading to confusion and disunity.

Attempts were made in the Indian subcontinent by Mullah Nizam ud din (d. 1754) to update the syllabus for madrassas. The main subjects in *Dars-i-Nizami* (not to be confused with Madrassa Nizamiyah of Baghdad) covered were *Tafsir* (exegesis of the Quran), *Hadith* (traditions),

Fiqh (jurisprudence), *Usul al Fiqh* (principles of jurisprudence), *Kalam* (scholastic theology), *Mantaq* (logic), *Hikmat* (philosophy), *Balaghat* (rhetoric), *Sarf* (declension and conjugation), *Nahw* (grammar and syntax), *Riazi* (mathematics and geometry), and *Tib* (medicine). It standardized Madrassa education and came to be widely used in the Indian subcontinent. Its drawback that it did not lay enough emphasis on secular subjects was pointed out even by Emperor Aurangzeb during its formulation and introduction.

6. Nonrealization of the Importance of Printed Works

The importance of books for projecting the message of Islam and for conveying knowledge cannot be overemphasized. To produce handwritten manuscripts were both costly and time consuming. Therefore, only rich people could afford to possess or read them. Library access was also restricted to a select group. In order to bring the knowledge to the people, it was necessary to reduce the cost and time of production of books.

The *Dar al Tarajim* (House of Translations) of Baghdad did wonderful work in translating, editing, and scribing Hellenic literary and scientific works; but that output could not be mass-produced. It may be mentioned that paper was first produced in Samarqand in AD 751 and a proper paper mill established in Baghdad in AD 800. Paper was a big advance on papyrus, and it became the preferred medium for the scholars and the bureaucracy throughout the Muslim world. By contrast, it was only in the twelfth century that the technology was transferred to Europe via Spain and Sicily (Ref: HS).

It was the Chinese who produced the first printed book around AD 868 or the movable type made of clay in AD 1041 (Ref: SA). Although the Chinese had abundant supply of paper, it cannot be easily explained why they did not use their know-how for large-scale production of books, confining themselves to small-scale printing of folios related to landscape art and poetry.

The Muslim world also possessed the basic prerequisites to do large-scale printing including

- supply of paper
- ready sources of mineral and vegetable inks and dyes (cobalt, alum, etc.) which were used for textiles
- expertise to make blocks for printing on textiles

The Kufic calligraphic script widely used in the first four to five centuries of Islam had a simple noncursive style based on vertical and horizontal strokes. This style would have made the task of wood or clay-based block making much easier.

It can be inferred from above that Muslims were in a good position to predate the Gutenberg's invention (first printing press in AD 1436 that helped bring about the

Renaissance) by about six hundred years. Had that been done, it was only a small step to low-cost production of books and newspapers and widespread dissemination of knowledge not only for the Muslim but also for the entire world.

7. Nonawareness of Developments in Western Thought

There were inadequate numbers of scholars who were versed in Western languages or gave serious thought to the need to know what was going on in their fields elsewhere. The rulers and the military leaders also failed to realize the importance of knowing the administrative, economic, and military strengths and weaknesses of the adversary.

Muslim contacts, whenever necessary, were done at the borderlands; and no serious attempt was done to probe deeper into their territory. It is unfortunate that there was not another Ibn Batuta who would travel to the heartland of Europe, the Rhine valley, and beyond. The Muslims, to their detriment, lagged in learning new languages and remained oblivious to the emerging Western system of knowledge, technology, and military strategy.

b. Failure to Realize the Importance of Educational Institutions

The main deficiencies under this subarea relate to the lack of official sponsorship of the educational system and the infrastructure.

1. Nonestablishment of Educational Institutions

The institution of mosque and the mullah were considered to be responsible for imparting basic education. Every local mosque had an associated entry-level madrassa that taught basic Quranic knowledge for boys and for girls. The central mosque of a city could have multiple madrassas some of which imparted education in secular subjects.

Due to the lack of state support, very few of the higher-level madrassas were able to evolve into formal institutions of higher learning. It should have been the policy to establish darul ulooms and other institutions at each regional capital teaching both the religious and secular subjects.

The madrassas that were able to evolve into universities included al-Kairouan at Fez, Morocco (established in AD 859) and the University of Cordoba in Spain (in AD 961, its library had approximately four hundred thousand titles gathered from as far afield as Persia [Ref: WJ]).

Institutions of higher learning were established including Jamia al-Azhar (by the Fatimids in Cairo in AD 972), Madrassa Nizamiyah in Baghdad (by Seljuq Turk vizier Nizam ul Mulk in AD 1065), and observatories at Maragha (AD 1261) and Samarqand (AD 1416). Similar institutions were also established at Isfahan and Qom in Persia and in Bokhara, central Asia.

The universities of Islamic Spain (al-Andalusia) especially Cordoba, Seville, Granada, and Toledo were at one time the best universities in all of Europe. Muslims, Jews, and Christians were all permitted to study; and Muslim Spain became the greatest source of knowledge in all of Europe and remained so for four hundred years. Because of the multiethnic milieu of the scholars and their interaction, the list of Islamic Spain's contributions to the West, in fact, is most significant.

In addition to contributions in mathematics, economics, medicine, botany, astronomy, geography, history, and philosophy, Muslims of al-Andalusia also developed and applied important technological innovations, e.g., the windmill and new techniques in irrigation, and in the crafts of metalworking, weaving, and building.

The Christians educated in Muslim Spain were responsible for the European Renaissance, and the Muslim texts on medicine from these universities were the standards of medical training in Europe for six hundred years, right up to the 1600s.

Universities were an Islamic invention later adopted in Europe. (Michael Woods, <http://www.post-gazette.com/pg/04102/299292.stm>)

There was a large disparity between the institutions of higher learning established in the Muslim world compared to those in the Christian Europe. Between AD 811 and AD 1510, a total of thirty-one institutions including major madrassas, universities, libraries, and observatories were set up in the Muslim world. Of these, only eight can be regarded as universities. Figure 25 shows the growth of universities and institutions of higher learning including advanced-level madrassas in the Muslim lands versus those in Christian Europe.

It shows that while Muslims were pioneers in their establishment, they did not or could not keep up with the rapid growth in Europe. The Christian rulers realizing the importance of universities began their establishment at a fast pace in the twelfth century. The crossover point occurred around AD 1150. During the time interval, AD 811-1510, no less than seventy-three full-fledged universities were established in Europe. See appendix 3 for details. These universities nurtured spirit of inquiry and freedom of expression that flowered into advances in all areas of sciences and arts. After a gestation period of few years, it provided a strong platform from where Renaissance took off in the fifteenth century.

Examples of universities include that at Salerno, 1050 (in 1070, its medicine curriculum was updated by Constantine, a Tunisian Muslim professor); Bologna, 1088; Paris, 1150; Oxford, 1167; Cambridge, 1209; Salamanca (Spain), 1218; Montpellier, 1220; Naples, 1222; Toulouse, 1229; Madrid, 1293; Rome, 1303; Vienna, 1365; and Leipzig, 1409. As shown in the diagram, the pace of growth picked up almost exponentially. Not only were the Muslim lands left behind in terms of the numbers (universities and the students) but even more so in terms of the quality of education and research. After this, it was a classic

situation of “no contest” as regards the levels of scholarship and innovation and their beneficial impact on their societies.

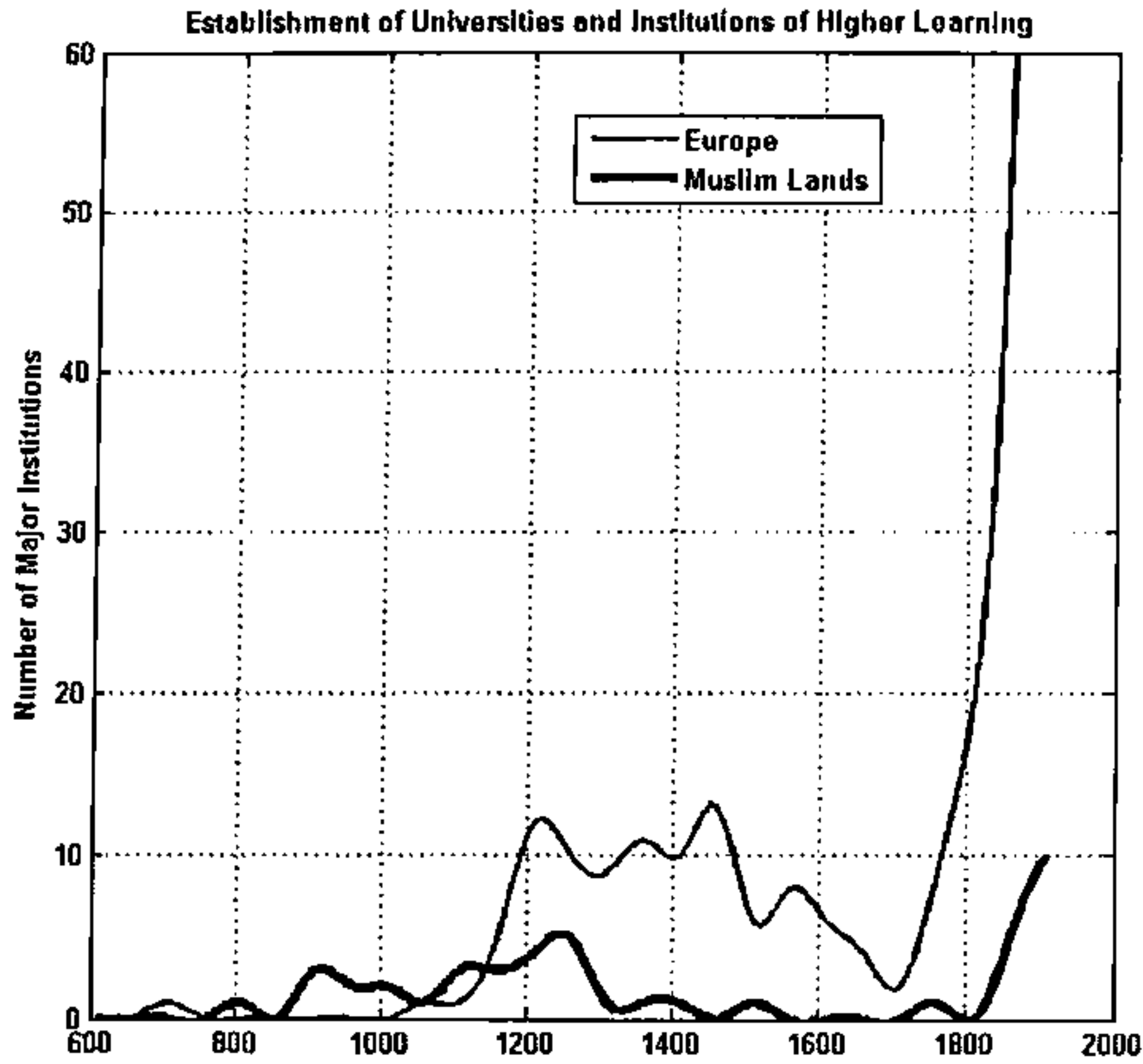


Figure 25: Growth of Universities and Advanced-Level Madrassas

All these universities hastened the onset of Renaissance and the emergence of Europe as the primal power. Muslim states in the absence of fresh ideas nurtured by the universities went into steep decline. Although the Ottomans carved large areas of central and eastern Europe to set up a vast empire due to their overwhelming zeal and military technology, their successes proved transient, and the empire declined rapidly due to many factors including the lack of institutions of higher learning.

2. Nonsupport of Houses of Knowledge

The *Dar ul Tarajim* (House of Translations) and *Dar ul Hikmah* (House of Knowledge) started under the Abbasid caliph Mamun produced excellent work in assembling, collating, and disseminating knowledge from various sources. After the completion of the first phase of translation of Greek, Latin, and Indian manuscripts this program went into decay and did not keep up with the times.

After the fall of Cordoba in AD 1236, Ferdinand III of Castile revived the university and invited scholars from all over Europe for transferring scientific works by Muslim scholars from Arabic into Latin (Ref. WJ).

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Chapter 7

Deficiency Area:

Politics, Governance, and Military

The deficiency area concerned with the political, governmental and military affairs has been greatly instrumental in retarding the development and progress of Muslim governments and societies. Since the scope of this deficiency area is very large, it is necessary to break it down into the following subareas:

1. **Political System**
2. **Fragile Loyalties, Betrayal, and Treason**
3. **Justice and Law and Order**
4. **Governance and Statecraft**
5. **Governance Institutions**
6. **Military and Warfare**
7. **Diplomacy and Trade Relations**

a. Political System

The deficiency factors relating to the political system of a Muslim society mainly relate to the concentration of power in a single person in association with a privileged coterie. This situation is responsible for a number of issues, including lack of accountability, appropriation of resources and lavish lifestyle of some, messy transfer of power, and many others. Exclusive reliance on the sagacity and wisdom of one person instead of strengthening the state made it ossified and fragile.

1. Concentration of Absolute Power in a Single Person

Concentration of power in a single person is the most important deficiency factor instrumental in the decline of Muslim society. After the Khilafat-i-Rashida period, in most cases the ruler being secular was not constrained by the requirements of the faith. In the absence of any checks and balances, the system was susceptible for sliding toward

arbitrary and despotic rule. The rulers became increasingly tyrannical and did not hesitate to invoke orders for the on-the-spot execution at the slight hint of wrongful behavior or error.

Such a system could easily fall into an ever-increasing downward spiral, possibly leading to the terminal state of collapse and dynastic downfall. See figure 26. It is not necessary that the downfall state be reached in only one cycle. There may be several loops (reign of several rulers) before it reaches the terminal state.

Another feature of this spiral is that once it is entered, it takes an enormous amount of effort (may be a revolution) to halt the decline and rectify the faults to restore the status quo ante before embarking on the path to progress.

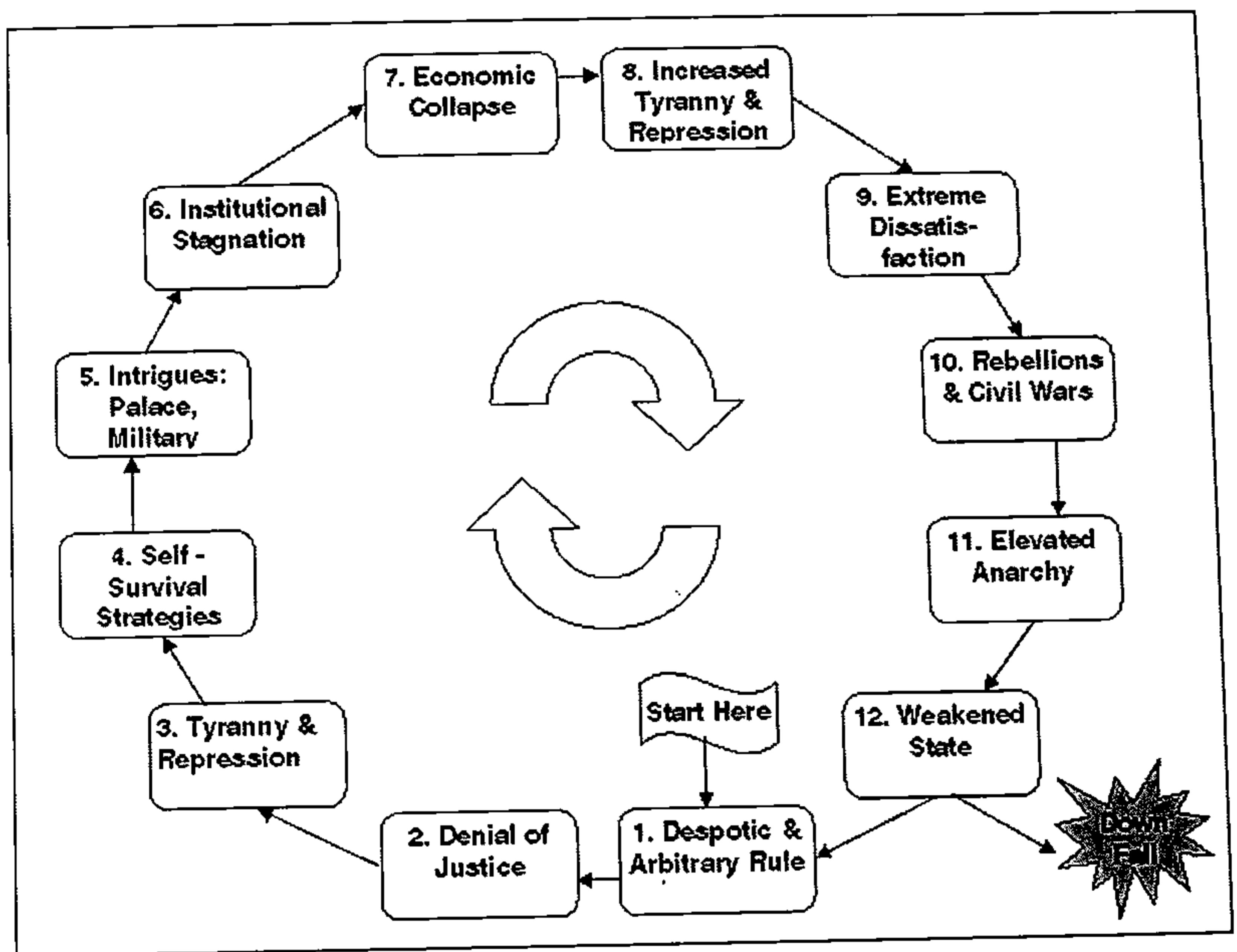


Figure 26: Despotic Rule, Twelve-Stage Downward Spiral

2. Ineffective and Nonrepresentative *Majlis-i-Shura*

In a despotic rule, the role of the Shura consultative council was simply to give credence to the edicts of the ruler or of his designated minister. Faced by constant threats to their position, property, and life, members of the Shura became totally subservient and could

offer no independent opinion. Soon they became more royalist than the ruler himself was. In due course, the wonderful system of accountability and "checks and balances" instituted during the era of Khilafat-i-Rashida was blown to pieces leading to unilateral actions that caused enormous damages.

3. Disempowerment of the People

An obvious side effect of the concentration of power in the single ruler or his governor stratified the society in terms of rights, privileges, and influence. There was an inverse relationship between the power of the ruling classes and that of the people whom they lorded over. They were left at the mercy of the elements while the elite class skimmed all the benefits. Due to the fear of repression, the people were unable to exercise freedom of expression or rebel against the injustices. They could not dare to take steps independently to improve their lot lest it impinged on the authority and privileges of the ruling elite. This disempowerment stymied their economic, academic, or social advancement.

4. Stratification of the Society

During the times of relative stability and peace, the basis of prosperity of the elite (*Khass*) and the nobility (*Ashraaf*) depended on the workforce that was at the bottom of the social scale. The workforce comprising of the common persons (*Amm*), soldiers, peasants (*Fellaheen*), craftspeople (*Sanaf*), traders (*Tijarat*), etc., were not given their due recognition in the society. Contrary to the spirit of the faith, the nobles also possessed an army of house slaves (male and female) to serve their every need. The stratification was harmful as it disempowered the masses even more.

All this led to a deeply stratified society. It was further compounded because of the division of the population along the ethnic and religious lines, Arabs, *Mawalis* (non-Arab Muslims), and *Zimmis* (non-Muslims). The workforce usually came from the *Mawalis* and the *Zimmis*. Through sheer talent and love of knowledge, a small number of *Mawalis* and *Zimmis* went on to become scholars, jurists, administrators, and army leaders thus becoming upwardly mobile. The society would have gained a lot had there been direct incentives and encouragement by the elite.

5. Attitude of the Ruler

It appeared as if the ruler assumed that he was there for perpetuity and not as a trustee in the service of the Ummah. In most cases, his aim was to please his own self or his (favorite) progeny without regard to the welfare of the state at large. This attitude collared all the actions of the ruler who in most cases considered himself above the law, whether secular or faith. This led his behavior to be indistinguishable from that of non-Muslim potentates, e.g., Byzantines, Frankish, or Mongols.

6. Lavish Lifestyle of the Rulers

As defender of the faith, a Muslim ruler was required to provide external and internal security in the state, provide justice to all, forbid people from doing evil, and exhort people to do good deeds in accordance with the Sharia law.

Succeeding Muslim leaders who became antagonists in civil strife totally disregarded the example of uprightness, justice, commitment, and democratic succession set up by their noble predecessors.

Transfer of power came to be through dynastic inheritance, usurpation, or the force of arms. Their objective was not the service but personal aggrandizement visible through the royal court, royal family, palace guards, and other accretions. They tried to imitate the lifestyle of the Roman emperors by patronizing wild animal circuses.

The amount expended on public welfare projects such as Sarais for the travellers, madrassas for students, and water fountains and hospitals for the public paled into insignificance compared to the lavish expenditure on palaces, retreats, and monuments. Examples included the gigantic desert palaces of the Umayyads, Abbasid palaces at Samarra and Baghdad, Alhambra of Granada, Taj Mahal and other grandiose projects of the Mughals, Topkapi and other magnificent palaces of the Ottomans, and Hasht Bihisht (Paradise Eight) and other palaces of the Safavids.

Contrary to the teaching of Islam and the examples of the piety set by the Righteous Caliphs, most of the Muslim rulers regarded the state and its treasury and resources as their personal property and sometimes the people as their serfs. They bled the empire's revenue with extravagance. They wasted valuable time lusting themselves in the harem which they enlarged by gathering and replenishing with concubines from far and wide as if it were a hobby. Eventually they got so miserably entangled in the complexities and conspiracies of the harem that the affairs of the state got relegated to the back burner.

They had to delegate most of the administrative and military functions to their ministers and the condottieri (household guard) who amassed so much power that the rulers practically became slaves in their own palaces. They could be removed from office, blinded, or killed outright to make way for another suppliant and impotent ruler.

7. Inappropriate Distribution of Responsibilities

During the Khilafat-i-Rashida, there existed a unity of command. The caliph was the head of the state and leader in spiritual matters and faith. He was the chief executive, the legal authority, and the leader of the army. These last three positions were delegated,

but the caliph asserted supreme control and expected detailed reports at all times. There existed a viable advisory council, Majlis Shura, which was consulted on a continual basis. Above all the caliph considered himself subservient to the will of Allah and the Sunnah of the Holy Prophet. There existed not an iota of pride or of personal ambition but only selfless service.

The most significant setback in the case of later caliphs was that their zeal for selfless service all but vanished. There were very few exceptions to this rule, Umayyad caliph Omar II (AD 717-20), Abbasid caliphs al-Muhtadi (AD 869-70) and to some extent al-Muqtafi (AD 1136-60) who tried to emulate the Khilafat-i-Rashida. The Umayyad and the earlier Abbasid caliphs retained the leadership position in administrative, military, and legal matters; but being deficient in the knowledge in matters of faith and practice, they could not and would not offer spiritual leadership. This they franchised out to a coterie of Ulema suppliant to their wishes and commands. This signified the two-way split in the responsibilities of the caliph.

The two-way split in responsibility may have provided temporary relief to the caliph, but in accordance with the Parkinson's Law, his workload increased rapidly as the society and its governance became much more complicated. This necessitated a three-way split in which responsibility over the administration and financial matters was assigned to the chief vizier. Left sole in charge of this important function and realizing the ignorance of the caliph, the power of the vizier increased considerably. Over time, the office of the vizier became hereditary, as in the case of the Barmaki family during the Abbasid caliphs al-Mansur and Harun al-Rashid.

The caliph was still the head of the army and the supreme decision maker in military matters. Due to his preoccupation in frivolous matters (mainly court and harem related), the caliph could not devote much time to the matters of the state. This necessitated a four-way split in which the responsibility of the army was delegated to the most influential general. More often than not, the head of the army was the not most competent commander in the field but the head of the palace guards who happened to be the closest to the palace. He acquired excessive power due the weakness and dependency of the caliph on him for security. In most cases, the caliph had to abrogate his authority over the entire army to the head of the condottieri much to the chagrin of the field commanders.

The four-way split meant the death knell for the office of the caliph as he had now lost all his authority and prestige. As a result, from AD 929 onward, the caliphs were merely the puppets of Turkish, Buyid, and Seljuq generals and could be removed or installed arbitrarily. Three Abbasid caliphs—al-Qahir (934), al-Muttaqi (944), and al-Mustakfi (946)—were blinded and then declared to be unfit to rule by the Buyids. One fared even worse. Caliph al-Mustarshid (AD 1118) was murdered by his Seljuq warlords.

8. Problematic Transition of Power

Succession upon the death or disability of the ruler has been a major source of contention throughout the Muslim history. Transition of power has been rarely smooth and noncontroversial. It would be relevant to briefly review the background of this important problem.

Majlis Shura and the Democratic Election of the Caliph

Umayyad caliph Emir Muawiya, by going against the norms of the faith and the noble practice of the Righteous Caliphs, did the greatest injustice to the body politic of the Ummah. He usurped the rights of the true candidate Hazrat Imam Hussain by nominating his thoroughly inept son Yazid to be his successor. The subsequent assassination of Hazrat Imam Hussain and his innocent progeny came to be regarded as the biggest crime in Islamic history. Thus, dynastic succession became entrenched in the Muslim polity, and that became the norm for all time to come.

The democratic system of election was abandoned, and the Majlis Shura was either rendered toothless or dissolved altogether. If it existed at all, it was for the sole purpose of rubber-stamping the flagrantly un-Islamic practice of monarchist succession. This inhibited the evolution of the Muslim political system as an avant-garde style worthy for emulation.

Types of Internal Successions

There existed some accepted norms for dynastic succession in which, for example, either the eldest male son or the senior-most brother or uncle was nominated as the crown prince. Observance of these rules gave a semblance of continuity to the system resulting in smooth transition of power. In many cases, even the rules of dynastic succession were overturned due to palace intrigues and conspiracies that sometimes resulted in exile, mutilation, assassination of the members of the royal family, and colossally wasteful civil wars. Dynastic succession was further complicated due to the existence of multiple wives each vying to promote the candidature of their sons at the expense of others that often had tragic results.

The following are the ways in which power could be transferred:

1. Dynastic Succession: Primogeniture

A living child (usually male) who is senior by birth inherited the throne. This was the most common method for succession used throughout the world.

2. Dynastic Succession: Fraternal Seniority

The senior-most member of the royal family, usually the brother of the deceased, succeeded. This type of succession was resorted to in case there was no male son to take over the reins.

3. Transgressive Succession

This type of succession was not bound by any of the above rules. It was driven by expediency in which the ruler either on his own preference or under the influence of a lobby group (the court, wives, or harem concubines), overriding the rightful crown prince, nominated an out-of-line successor.

Such denial of justice caused serious and far-reaching resentment not only for the aggrieved party but also in the general populace. Violent reaction ensued either prior to the anticipated decision or after its formal declaration.

In many cases, these conspiracies resulted in banishment, mutilation, and cruel and horrible assassinations of brothers (fratricide), uncles, and nephews (parricide) and horror of horrors even the ruler's own out-of-favor sons (filicide) and his grandsons, all for the sake of transient expediencies. There are examples in the Ottoman rule where such barbarism once entrenched also spilled over to the next generation.

In case every thing else failed, and if the aggrieved candidate could muster strength, claim to the throne was decided on the battlefield. This resulted in unimaginable carnage, loss of resources, lingering civil strife that weakened the dynasty as well as the state.

Successions based on expediency and civil wars accentuated the already existing differences along the tribal, dynastic, racial, sectarian, dogma-based fault lines, leading to instability, the decline and violent downfall of dynasties.

9. Usurpation of Power

Muslim caliphs allowed a deep chasm to develop between them and the people. To keep the discontent under control, the earlier Abbasid caliphs hired troops from Khorasan. Over time, their power grew so much that Caliph al-Mamun (around AD 813) got alarmed and to counter their influence enlisted Turkish slaves as palace guards. Because of their loyalty and hard work, they were entrusted with high positions. These praetorian guards were thus able to strengthen their power base so much so that they asserted their will in matters of succession. Finally, they were able to usurp the power of the caliph. In AD 861, they assassinated the

nominal caliph Mutawwakil and later blinded⁸ two of his successors (Caliphs al-Qahir and al-Muttaqi) who unwisely went against the wishes of the usurpers.

This state of affairs continued until AD 947 when the fiercely warring Buyid tribe from the Caspian region managed to defeat the Turkish condottieri and assume power. They adopted Shiaism as the state religion. Buyids proved no less cruel when they blinded and dethroned Caliph Mustakfi. In the end, their power began to wane, and the usurpers were themselves usurped by Turkish Seljuqs in AD 1055, who were Sunnis (Ref: WJ). From then on real power resided in the person of the Turkish sultan rather than the caliph. These episodes of usurpation caused turmoil, uncertainty, and discontent that weakened the state. When the First Crusade was launched in AD 1095, Muslims were fragmented in Fatimids and Seljuq states. There was no single Muslim army powerful enough to confront the united Christian armies.

It is surprising that even after a passage of a thousand years, the political structure of Muslim states have remained weak that allow the acts of usurpation to occur so frequently.

10. Contenders of Power (Crown Princes) Not Trained Adequately

Some of the drawbacks of the dynastic succession could have been mitigated had the crown prince or the set of possible contenders were adequately trained and groomed for the job. Due to selective breeding over the generations, they possessed the finest physical attributes; but the same cannot be said about their intellectual capacity, sense of duty, courage, or fortitude.

What is most surprising is that often the successors of the best rulers were found lacking in these very qualities. It happened after the passing away of the Ayyubid sultan Saladin and of Yusuf bin Tashfin, the Almoravid conqueror of Spain, which resulted in the fizzling away of the gains so assiduously achieved by them.

The crown prince/s needed training in the matters of state, warfare, law, governance, and the delivery of justice. In practice, their training was informal and voluntary. It was confined to martial arts, training of horses, falconry, exploits of their notable predecessors, poetry, and beaux arts.

⁸ Such abhorrent practices cannot be defended under any circumstances. Nevertheless, such grisly deeds were also being perpetrated in medieval Europe. It happened in England in the eleventh century, when Alfred, the brother of King Edward the Confessor, had his eyes gouged by Godwin, Earl of Wessex (Ref: www.channel4.com/history). During the time of the Fourth Crusade, two Byzantine rulers, Andronicus (AD 1185) and Murtzuphlus (AD 1203), met the same fate at the hands of their opponents (Ref: JP).

The rest of the time they could be engaged in frivolous activities while ensconced in palaces. Since they had lots of time on their hands, it made them susceptible to court intrigues and conspiracies. The net result was that with few exceptions, they were ill qualified for the job.

This kind of negligence by the current ruler was unpardonable. The empire that he had built so assiduously could crumble and disintegrate under just one incompetent successor very rapidly.

b. Fragile Loyalties, Betrayal, and Treason

The motivators for the fragile loyalties, betrayals, or treason that Muslim societies suffered were greed and weakness of commitments to promises and agreements (*Muamalaat*). One of the deficiencies was the internal switching of loyalties for the sake of immediate payback. Even more reprehensible and damaging were the conspiracies with the external enemies for the usurpation of power and in some cases treason against the state.

1. Unsteady Loyalties of the Elite

It is well known in Muslim history that ministers, generals, governors, and even some Ulema were in the habit of changing loyalties between different contenders or seats of power. Due to fragile loyalties, they could jump ship at the slight prospect of improving their power positioning or obtaining financial gain. This gave rise to turmoil, instability, and open rebellions that drained precious time and resources of the ruler, preventing him from doing something useful in case he wanted to.

2. Conspiring with the Enemy

There are many instances in history where people with authority, military commanders, governors of provinces engaged in conspiring with the enemy. Even a famous ruler like Caliph Harun ur Rashid conspired with the enemy (e.g., Charlemagne of France) around AD 800 against fellow Muslim, Emir Abdur Rahman (Umayyad ruler of Spain) asking him to take punitive action against the "renegade." Such instances were precursor to setbacks and wholesale defeats of everybody including the conspirators in due course of time.

Similar examples exist within Spain after the fall of the Umayyad dynasty in Cordoba around AD 1130 when the caliphate was divided into regional units (Taaifas) whose rulers conspired with Christian rulers of Castile, Leon, and Barcelona against the fellow Muslims.

During medieval times when there was no technology gap, the factor in Muslim defeats has not been the sheer prowess of the enemy but the disarray and impotency brought about by conspiracies and treason.

We do not need to strain too much to see parallels in the contemporary world.

3. Unilateral Declaration of Independence

The remoteness of Muslim provinces implied that the governors had to be self-reliant in matters of governance and decision making. Some of the enterprising ones improved not only their economic power but also their defensive capabilities. Upon realization that the center was weak and its writ could not be easily asserted, due to the remoteness, some governors saw an opportunity waiting to be exploited. They made unilateral declaration of independence and consolidated it by appointing their progeny as successors. The following are some of the dynasties that emerged because of unilateral independence by governors:

- Aghlabids (800~) of North Africa
- Tahirids (821~) of Khorasan
- Tulunids (868~) of Egypt
- Hamanids (905~) of Syria
- Ikhshids (935-969) of Egypt
- Khwarizm (1200~) of Central Asia

4. Battlefield and Wartime Treason

Treason and treachery on the battlefield during wartime was one the most damaging factors for the Muslim state. This resulted in changing the course of history. It was particularly harmful during Crusades when greedy and unprincipled generals conspired with the Byzantines or Crusader armies and committed treason leading to the defeat of the Muslim army. There are many instances of desertion by the entire section of the army during the heat of the battle, resulting in whole-scale rout. Examples include the role the Seljuqs of Damascus played against the Fatimids of Egypt, or the behavior of some of the relatives of Sultan Saladin. Betrayals and treason were also a factor in the colonial conquest of India and the Middle East, (appendix 5).

c. Justice, Law, and Order

During the times of Khilafat-i-Rashida, the justice system stood on strong foundations and was able to deliver justice to everybody given the fact that it was still in the process of development. Justice was seen to be done, and law and order situation was satisfactory. The Quran endorsed the writing of contracts, which could be used as evidence and testimony under oath. Due to general illiteracy of the populace, this excellent principle could not be enforced by the judges (Ref: HPM).

In the expanding Muslim empire, justice needed to be carried out uniformly throughout the realm. Due to administrative difficulties, this could not be done. Like most other institutions, the judicial system also became subservient to the whims of the ruler or his appointed governors. The system suffered due to the deficiency factors such as a subservient and tyrannical judicial system, limited avenues for seeking redress, and the degraded law and order situation.

1. Politically Subservient and Tyrannical Judicial System

Over time, the justices, Qazis, and Muftis were directly appointed by the ruler or his governor without considerations of merit. The judicial system constrained by the arbitrary guidelines and orders of the ruler was unable to pass judgments according to the requirements of the Sharia. The judicial system was also used as an instrument of tyranny when dealing with cases of rebellion against the state or sectarian differences. All this resulted in the nonconfidence of the common person in the system.

During the Umayyad rule, however, jurisdiction of the Qazis extended to Muslims only. In order to keep the minorities contented, Umayyad permitted non-Muslims to retain their own ecclesiastical and rabbinical tribunals as part of their forward-looking policy (Ref: HPM).

2. Limited Access to the Justice System

The common person was frequently subjected to violations of his human and property rights. If the perpetrator was a high official, the chances that the common person would get justice were severely impaired. Recourse to the high authorities (e.g., caliph) for redress could be beyond his reach due to the distances and the expenses involved. Another reason that constrained access was the shortage of competent Qazis willing to serve remote areas.

3. Degraded Law and Order Situation

A side effect of internal rebellions and turmoil was the deteriorating law and order situation, affecting security in remote towns and on trade routes where robbers could ply with impunity. This affected pilgrimage and trade and travel in the pursuit of knowledge (witness the case of Hazrat Abdul Qadir Jilani when travelling as a student). The situation in the cities was also not satisfactory. During the eleventh and the twelfth centuries, dissatisfaction of unemployed youth resulted in the formation of (Ref: HPM)

Futuwwas: Armed chivalrous groups
 Ayyarun: Criminal gangs
 Himaya and Taljiya: Protection rackets

d. Governance and Statecraft

This deficiency subarea includes factors concerning incompetence of officials, misuse of funds, bad governance, and taxation-related issues.

1. Incompetent and Corrupt Officials

Most of the officials were appointed based on their degree of subservience to the ruler. These included

- ministers
- governors of provinces and new territories
- judges and Qazis
- revenue officials
- military commanders

Their main objective was to attain and maintain the favor of the ruler and not the service of the community. Overall, they were interested in the attainment and maintenance of their power. The effect of having incompetent military commanders in the border areas was most pronounced as it was practically an invitation for the enemy to make easy inroads into the state. In many cases, officials were promoted beyond their level of competence.

In isolated cases, some corrupt officials were called to task. In AD 738, Governor Khalid al-Qain of Iraq was found to be speculating in grain. He was dismissed by the Umayyad caliph Hisham. The governor attempted a revolt, but it was suppressed (Ref: JW). There are not many instances of such corrective actions.

2. Ad Hoc System of Governance

During Khilafat-i-Rashida, governors and officials were given strict guidance for being just, to abide by the rules derived from the Quran and Sunnah at all times. Noncompliant officials were immediately recalled and replaced. New issues had to be resolved based on the ruler's whims or on precedence.

In many cases, these rules of precedence were not written down for future reference. This gave rise to ad hoc decision making in governance that were also clouded by the wishes of the official. There was also a practice of frequent change of governorships that was prompted more by political considerations than by their administrative shortcomings.

During a thirty-year period (AD 713-743), eighteen different governors were appointed in Spain (Ref: HPM).

3. Inadequate System for Resolving Public Grievances

The governors of the provinces were an institution in themselves. They regarded themselves not to be accountable to the governed and were insensitive to their problems. Security considerations also made themselves remote and inaccessible. In most cases, the repressed people could do nothing but wait, hoping for the arrival of a more just official. The other option for the aggrieved people was to appeal to the higher authorities. This involved long and risky travel to the center. It could also backfire as the official could regard this as an affront who could take even more severe action.

4. Repressive Control

Repressive methods for controlling the populace were adopted by many governors. Any person suspected of independent opinions or supposedly posing a danger to the regime was treated brutally. For example, Hajjaj bin Yusuf, the Umayyad governor of Basra/Kufa around AD 690, was notorious for ordering summary punishments and brutalities. Over time, state-run terror became the norm that destabilized the society.

5. Irregular and Unjust Taxation System

The following were the main sources for taxes (Ref: HPM):

- *Zakat*: With certain exemptions, this yearly tax was obligatory for every Muslim. It was applied at the rate of 1/40th of the net worth.
- *Ushur* (Tithe): A tax on agricultural produce usually collected in kind. Its nominal rate was 1/10th but could be higher if the ruler so wished.
- *Kharaj*: A tax levied on lands in conquered territories. Its rate varied from 1/5th to 1/2.
- *Jaziya*: Poll tax levied on non-Muslim males in lieu of zakat and military service. Rate depended on person's wealth: forty-eight silver dirham for the rich, down to twelve for the poor.
- Commerce and trade: Taxes were collected on transactions in the marketplace and on the flow of goods through ports.

The taxation system besides being misgoverned was also unjust. Jaziya tax on minorities was not collected properly. The treasury, *Bait ul Mal*, was always deficient in terms of available funds and resources. Lands decreed to certain religious institutions was declared as trusts (*Waqf*) and exempted from tax. There were three levels of taxation:

- Arabs: They had to pay zakat tax, but generally they were exempted from land taxes.
- Mawalis: For over sixty years of the Umayyad rule, new non-Arab converts to Islam had to face discrimination in many areas, including jobs and taxation. They were called Mawalis and had to pay the zakat tax in addition to the regular land taxes (Ushur). This differentiation and double taxation is totally contrary to the precepts of the faith.
- Zimmis: Non-Muslims (protected people, Jews, Christians, and others) while exempted from the jihad duties had to pay the Jaziya tax in addition to the land taxes. They were exempted from the zakat taxes.

In AD 720, Umayyad caliph Omar II abolished the special treatment for Arabs who had to pay the same land taxes as the Mawalis that helped replenish the Bait ul Mal. With the growth of the empire, the implementation of these rules was left to the discretion of the governorates. During the times of turmoil in the center, the governors withheld taxes due to the caliphate. This happened in AD 934 under the relatively weak Abbasid Caliph al-Radi (Ref: WJ).

Tax-Related Revolts

Due to the unjust policies, tax-related revolts surfaced. Around AD 725, Christian Copts rebelled in Egypt. In AD 734, there was a revolt in Khorasan by al-Harith demanding fiscal equality and removal of discrimination between Arabs and Mawalis (Ref: EG).

6. Tax-Collection Problems

Distance-related problems affected the collection of all forms of taxes. Since most of the land tax—generating areas (Spain, Egypt, central Asia) were far removed from the center, this made the collection and transport of the proceeds in kind to be very time consuming, expensive, and subject to leakage. It also affected the ability of the center to do proper budgeting that eventually affected its ability to launch military campaigns or to maintain welfare projects. New administrative systems were also needed to overcome transportation difficulties that amplified the leakage and pilferage of tax proceeds. Over time, the shortfall in revenue made the center powerless and impotent.

7. Misuse of Public Funds

The ruler and the governors usually had the first cut at the treasury. This was used for running the elaborate court, the harem, and the palace guard. Any thing left over was used to reward the sycophants or to spend on grandiose projects. Other expenditures except those related to the army were relegated to a very low priority. Any increase in revenue, in accordance with the Parkinson's Law, was accompanied by corresponding rise in luxury-oriented expenditure.

There was no accountability since the elite were partners in the illegality and the Ulema and the judiciary were either compliant or their opinions were ignored and nothing except murmur could be expected from disempowered people. This misuse has been and still is one of the major causes of society's backwardness.

8. Inadequate Support of Institutions for Public Welfare

The Bait ul Mal resources depleted by palace expenses meant that no investments could be made in commerce, agriculture, or the craft industry—investments that would have strengthened the economy in the long run.

The pilferage of public funds also meant that little or no resources could be spared for the public-welfare needs of the people, including education, health care, water supply, or social support for the needy and the destitute.

9. Frequent Shifting of the Capitals

Due to administrative and political considerations, the capital of the Muslim caliphate was shifted a number of times. The emergence of rival emirates also resulted in multiple capitals. Any new capital came with its attendant costs: financial, infrastructure, political, administrative, and military. The nascent Muslim empire needing continuity of rule and stability for its maturity was thus harmed.

It first happened in Hazrat Ali's caliphate in AD 657 when faced with the Kharaji revolt, the capital was moved from Medina to Kufa. From AD 661 onward, Damascus remained as the capital for most of the Umayyad period. In AD 744, due to the danger from the emerging Abbasids, the last Umayyad caliph Marwan II decided to move the capital to Harran in southern Turkey (Ref: HPM). In AD 750, the Umayyad dynasty collapsed with the defeat and death at the hands of the Abbasids.

During the Abbasids' rule, the capital was shifted four times, first to Kufa in AD 750, then to Baghdad in AD 762, to Samarra in AD 836 (under Mutazila caliph al-Mutasim), and then back to Baghdad in AD 892 where it remained till its destruction by Mongols in AD 1258.

The situation was equally disturbing in Muslim Spain when due to civil wars and its division around AD 1031 into Taaifas (petty states), each with its own little seat of government, two major cities, Seville and Granada, appeared as rivals to the original capital Cordoba of the Andalusian Umayyads.

The Abbasids' decision to site their capital to Iraqi lands made the empire look eastward to Iran and Khorasan where their real constituency resided. This caused them to be removed

permanently both from Arabia, the spiritual focus of the Islamic state, and Egypt, its commercial focus. Baghdad was also too far removed from the strategic Mediterranean region that was just about to become the center for major conflicts with the Byzantines and the Frankish Crusaders.

It can be surmised that had the capital of the Muslim state been moved to the Mediterranean littoral, e.g., Jerusalem or the port city of Antioch, the advantages would have been manifold, for instance:

- interaction with the neighboring Christian empires of Rome and Byzantine in trade, exchange of ideas, projection of the faith, etc.
- proximity to the trade and pilgrim routes
- improved defensive and offensive capability
- increased access to raw material (timber, iron, etc.)
- development of the navy and cross-oceanic exploration

Establishment of capitals also occurred at other times and places (Ref: HPM):

- Qalat Bani Hammad, North Africa: Hammadid's capital, 1007, destroyed by Almohads in 1152
- Ghazni and Ghaur, Afghanistan: 977 and 1073
- Marrakech, North Africa: Almoravid's capital, 1069~
- Tinmal, North Africa: Almohad's capital, 1153~
- Tabriz and Sultanniya: Mongol's capitals, after the sack of Baghdad, 1252 and 1306
- Samarqand and Herat: Timur's capitals, 1336~
- Ottoman capitals: Bursa, 1326; Edirne, 1361; and Istanbul, 1453
- Tabriz: Safavid's capital, 1510~

Establishment of the new capitals not only involved the design and replication of the infrastructure (including opulent palaces) but also implied the destruction of the existing ones and the tragic displacement of the people. All this caused a huge drain on resources. It also led to instability and uncertainty that the society could ill afford.

10. Inadequate Steps to Solve Distance-Related Problems

The vastness of Muslim lands dictated the need for having good and safe roads along with the means of transportation. Lack of this transportation infrastructure (unlike the situation in the earlier Roman Empire), resulted in difficulties, including

- governance: due to delayed transmission of orders and status reports
- repelling aggression by the enemy in a timely manner

- maintaining contact with the expeditionary forces and keeping them well supplied
- breakout of revolts and problems with their suppression
- maintenance of law and order in remote areas
- tax collection and delivery
- flow of commerce and trade

e. Governance Institutions and Practices

The main deficiency factors under this heading relate to the negligence in developing institutions for training and the ad hoc system of governance.

1. Institutional Nondevelopment

Unlike developments in the West, the rulers remained ignorant of the importance of setting up training institutions for the administrative official and the military. Unlike the happenings in Europe, the concept of artisan guilds meant to promote apprenticeships in the manufacture of armaments, agriculture implements, woodworking, etc., did not take hold. Such guilds had an important contribution during the period of Renaissance.

In the Muslim lands, the nondevelopment of institutions during the twelfth and thirteenth centuries may have been partly due to the lack of awareness and enterprise in the community as well as the officials.

2. Ad Hoc Practices and Processes for Governance

It may be recalled that Caliph Omar at the time of the appointment of provincial governors and judges used to call them for interview and gave detailed instructions regarding the level of conduct expected from them. He also used to remind them of their obligations through follow-up letters. This practice was a precursor to a standardized conduct for the appointed officials. During the succeeding years, no initiatives were taken for the codification of their duties and obligations. Governors ruled at the pleasure of the caliph, and their sole objective was to retain his favor. In the absence of other directives, they could adopt ad hoc means and procedures for governance. This did not allow continuity of administrative practices when a new governor took office, causing uncertainty and confusion both for the lower-level officials and the people.

f. Military and Warfare

This is vast field consisting of many deficiency factors. The important ones include

1. lack of standing army
2. overreliance on war booty (*Mal-e-Ghanimat*)

3. decreased motivation for jihad (*Fi Sabeel al Lah*)
4. overreliance on the commander's (*Sipah-i-Salar*) expertise and personal valor
5. lack of commitment of the officer corps
6. long lines of communication
7. nondevelopment of engines of war
8. stagnant strategy
9. nonenforcement of victories
10. intelligence shortfall
11. armies not equipped for warfare in foreign lands
12. lack of unity and resolution

1. Lack of Standing Army

In the beginning, army was assembled just before the mounting of an expedition. There was little time for training or of planning; but this was compensated by the indomitable spirit, motivation, and the intensity of the belief of the participants. When the empire was spread over vast distances, the center's control over remote garrisons was diluted, resting with the local governor. European powers had a somewhat similar system that was based on feudalism. The feudal lord had increased interest in the training and discipline over the army under his command.

Notable exception to this practice was Saladin who established a smallish army but made into an excellent fighting force through intensive training in strategy, tactics, and the use of siege equipment and incendiaries. Due to his leadership and the competence of his forces, he recovered Jerusalem and other cities.

The Mamluks of Egypt also subjected their armies to intensive training in new tactics where every soldier was equally adept being in cavalry or in infantry. Using these tactics, the Mamluk general Qutuz for the first time inflicted a decisive defeat on the ferocious Mongols at Ain Jalut in AD 1260, forcing them to retreat to their homelands.

2. Overreliance on War Booty (*Mal-e-Ghanimat*)

Generally, the soldiers were volunteers who were not paid regular salary. Therefore, they had to rely on spoils of war (*Mal-e-Ghanimat*) for survival. This affected their motivation and commitment and their interest in professional training or discipline.

During Khilafat-i-Rashida, the ownership of the conquered lands rested with the state. They did not want the existing systems to be overly disturbed lest it leads to dissatisfaction and depletion in land revenue to the detriment of Bait ul Mal, an institution they wanted to strengthen and flourish. With the expansion of the empire and lengthening of distances, the question to grant ownership rights to the victorious combatants rose.

In AD 713, Umayyad caliph Walid I allowed the victorious army to acquire landed estates in Spain, as an exceptional case (Ref: EG). This change of policy had both positive and negative effects: positive in the sense of increased motivation for greater victories and negative because it somewhat diluted the concept of jihad due to expectations of tangible benefits. The long-term effect of this policy was also to diminish the power of the center.

3. Decreased Motivation for *Jihad (Fi Sabeel al Lah)*

With the passage of time, there was evidence of waning motivation for commitment to jihad in the path of God and for taking risks. Other considerations came to the fore including the lure of war booty, *Mal-e-Ghanimat* or chivalrous adventure.

4. Overreliance on the Commander's (*Sipah-i-Salar*) Expertise and Personal Valor

The performance of Muslim armies was overly dependent on the quality of leadership and steadfastness of its commander in chief. Muslim history is replete with examples of outstanding leadership, bravery, and competence. In most cases, the edifice of success was built around his personality. In case of his death, due to the lack of good chain of command, takeover was not that smooth; and the army was left rudderless resulting in setbacks on the field of battle.

5. Lack of Commitment by the Officer Corps

The whole system was anchored around the credentials, expertise, and valor of the commander in chief. He alone could motivate and instill discipline among his officer corps who were appointed by him and were mainly from the nobility. Due to the absence of institutions and a strict regimen of training, their spirit of professionalism was not fully developed. Any laxity or blunder on the part of the commander in chief could result in the erosion of their commitment and morale. Under such a situation, the officer corps could become susceptible to offers from the rival forces for betrayal and defection with disastrous consequences.

6. Inability to Support Long Lines of Communication

The Muslim empire saw rapid expansion in terms of conquered territories during the time frame AD 630 to 1000. It extended from Atkakh in China, Khorasan in central Asia, and Sindh in India in the east to Lisbon in Portugal, Narbonne in France, and Sardinia in Italy in the west. Naturally, this gave rise to formidable distance-related problems for the center, including logistics and resupply of the forces. More importantly, it resulted in belated transmission of battle-related commands and status reports.

This happened even during the Holy Prophet's lifetime. For the campaign of Ghazwa-i-Mauta against the Byzantines, he wisely instituted a different command structure that did not require approval of the center. Distance-related problems necessitated granting autonomy to the local commander. A risk associated with this increased power was that the commander being no longer answerable to the center had a free hand to declare independence and to establish his own dynasty. The long line of communication was conducive to the breakout of revolts. To quell these required time as the center had to muster many additional resources that were badly needed elsewhere.

The drawbacks of long lines of communication could have been somewhat mitigated through proper planning and implementation of the following steps:

- robust command and control
- system of roadways and the associated infrastructure (as done by the Roman Empire)
- reducing reliance on slow and inefficient camel caravans
- introducing wheeled transport (carts and chariots)

7. Nondevelopment of Engines of War

Although Muslim scientists were at the forefront of mathematics, chemistry, and technology during the eighth to tenth centuries, they lost the momentum for the lack of official sponsorship.

One military area of excellence was in gunpowder. Having obtained its formulary from the Chinese, by AD 1100, Muslim chemists had modified it for specialized uses (e.g., gun use, rocket use, against fortified targets, etc. By AD 1280, more than seventy recipes were developed [Ref: DJ]). Saladin used advanced trebuchets (*Manjaniqs*) with naphtha as the payload. These advances may have been instrumental in Saladin's recapture of Jerusalem in AD 1187 and the eventual defeat of the Crusaders in AD 1250 (Seventh Crusade).

Other areas where Muslim technology did not develop as much was in metal and woodwork, materials in which Muslim lands were deficient. Unlike Europe of eleventh century, this may also have been due to the lack of trade guilds and apprenticeships.

There were many developments in engines of warfare in the eleventh and twelfth centuries in Europe including

- **Advanced Siege Engines: Trebuchets (*Manjaniqs*)**
The First Crusade used very advanced German-design siege engines during the fall of Jerusalem in AD 1095 with bloody consequences for the Muslims. However, Saladin was able to adopt and use this technology against the Crusaders.

- **New Armaments Development in Europe:** These included

- + crossbow (a medieval high-powered machine)

This was a mechanical evolution of a simple bow. Invented in AD 1139, it was so lethal that the pope banned its use against fellow Christians. It could only be used without compunction against "Saracens" during the Crusades.

- + pike: lancelike weapon used as massed defense against cavalry charges
- + coats of armor

- **Warships**

Muslims used naval warfare as early as the time of Emir Muawiya in the conquest of Cyprus and initial campaigns against the Byzantines of Constantinople. Naval warfare and shipborne transport came into full use during the Crusades by the Franks. By this time, Muslim naval forces were depleted and the development was hampered by inadequate availability of high-quality timber, iron, copper, and tin.

It was the Ottomans who made rapid advances in technology during the fifteenth and the sixteenth centuries and were able to match or outdo the Europeans in the manufacture of large guns. These were used successfully in the conquest of Constantinople in AD 1453. They also built a good navy and for some time had the mastery over the Mediterranean.

8. Stagnant Strategy of Warfare

With few exceptions, the military leaders did not update their strategy and battlefield tactics. In addition, they did not take into account issues such as

- lack of timekeeping and clocks—this hampered their ability to synchronize attacks or defensive measures
- no lessons learned from defeats or setbacks
- expertise limited to offensive warfare only based on cavalry charge (at the exclusion of defense)
- strategy not evolved for warfare in a terrain different from desert, e.g., forested, mountainous, riverine, etc.

9. Victories Not Enforced

Muslim rulers in Spain had to curb rebellions by the Christian kingdoms frequently. The victories were not followed up. The Christian kings were let off lightly by allowing them to pay tribute, thus allowing them to survive their defeats only to repeat the same act with greater intensity at the time of their choosing. This proved to be a continuous drain on the Muslim armies, providing an opportunity for the enemy to regroup, attack, and eventually inflict grievous defeat (Ref: HPM).

10. Shortfall in Intelligence Gathering

Muslim battlefield commanders were not proactively engaged in intelligence gathering and making use of it. It happened in AD 732, at Poitiers deep in the Loire Valley, France, when Abdur Rahman Ghafiqi's army was trapped in thick forest and eventually defeated as he could not track the movements of Charles Martel's forces.

Intelligence gathering may also have been hampered due to lack of permanent envoys in European countries and lack of language skills. Except for some time in Spain, Muslims could not exploit or highlight to their advantage the divisions existing between their various adversaries, for example, the enmity between the Frankish Crusaders and the Byzantines.

11. Armies Not Equipped to Warfare in Foreign Lands

Muslim armies were used to fighting in open terrain. They were not equipped or used to fighting in forested, riverine, or mountainous terrain where their cavalry could not be used effectively. Nor were they equipped for cold-weather fighting. Defeat of the Ummayd expeditionary forces at the hands of Charles Martel at Tours in France in AD 737 happened in the riverine and forested lands under cold and foggy conditions.

12. Lack of Unity and Resolution

With the onset of the rapid decline of the Muslim emirates (Taaifas) in Spain (time frame thirteenth to the fifteenth century), many rulers instead of organizing and combining resources for their defense remained disunited and unprepared militarily. They chose the easy way out, i.e., negotiations that sometimes led to the partial or full surrender of their territories to the Christian forces.

g. Diplomacy and Trade Relations

There was a need for Muslims to engage in multifaceted contacts with their adversaries. It need not have been confined to the military level alone. Efforts should also have been made to bring the message of Islam to these lands through *Dawah* (missionary work). In addition, military campaigns may have been facilitated by getting information beforehand about the capabilities and weaknesses, organization, political setup, or the strategies likely to be used by the adversary. All this information and more could have been obtained through diplomacy, intelligence, and trade contacts.

The deficiency factors under his subarea related to the negligence of diplomatic contacts and nondevelopment of trade relations with the West that badly needed to trade with China and the Far East.

1. Neglect of Diplomatic Level Contacts

Many large European kingdoms sent their ambassadors to the Muslim courts, but no Muslim ambassadors were sent on permanent basis in exchange. There was one-way flow of information that was most harmful to the Muslim states. Muslim states were thus starved of useful information pertaining to technical, trade, and military matters and could not keep up with the rapid advances happening in Europe.

2. Nondevelopment of Trade and Exploration

Muslim lands were deficient in many natural resources, such as timber, iron, and tin, needed for building ships, siege engines, and warfare material. On the other hand, there was abundant supplies of spices, incense, cotton, sugar, and fruit. Instead of blockading the flow of these commodities for which there was a great demand in Europe, Muslim states could have driven financially beneficial bargains. The blockade was harmful as the Europeans decided to explore other trading routes to the east, such as through northern Russia or the strategically important oceanic routes. It later allowed Portugal, Spain, England, France, and Holland to become great seafaring nations, to acquire immense riches and power that helped them colonize the emaciated Muslim states.

Muslim travellers including Ibn Batuta focussed on the Afro-Asian landmass and the Indian Ocean littoral as the area of exploration. Apart from the Barbary pirates, who went as far as north as the English Channel, Muslim explorers did not venture on oceanic voyages in the Atlantic. They should have heeded the Quranic exhortation: "Qul Seero fil Ard," (Go and explore the world), in search of new experiences.

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Chapter 8

Deficiency Area:

Economy, Environment, and Health

It is an oxymoron that economic well-being and sustainability are of vital importance for any state for its viability. Right from the beginning, Muslim societies were faced with the severe economic problems relating to food supply, scarcity of water, production of implements, etc. The temporary measure for dealing with these shortages was through the institution of charity, zakat, and the equitable distribution of wealth. Permanent solution to the economic problems required long-term thinking and investments for improving know-how and for increasing production and trade.

The medieval period was also marked by frequent incidences of contagious diseases and pestilences such as plague. All societies of the time were not able in the face of these debilitating diseases head-on but could take steps to mitigate the adverse effects. There also occurred an environmental catastrophe in the heartland in the form of desertification due to prolonged dry spells and massive deforestation mainly due to overgrazing.

a. Economic Stagnation

Muslim states have been perennially deficient in terms of available capital. The main reasons for the economy's inability to meet the needs of the society were the stagnation of trade and commerce, shrinkage of revenue for the Bait ul Mal, and inefficient system of taxation.

1. Trade and Commerce

During the Abbasid period, the trade and commerce network matured a great deal. The major players in the commerce system were the wholesale dealer (*Khazzan*) who stockpiled the goods; the long-distance trader (*Raqqad*) who specialized in luxury items such as silks, perfumes, spices, and porcelain; and the transporters who operated the camel trains and the sailing ships.

The commerce network covered a vast area. Land routes were established to central Asia, China, and the African countries. Sea routes, mainly for the spice trade, were established to

India, Java, and Sumatra. Due to the absence of good roads and the support infrastructure, travel time was long. The trade routes also became unsafe due to the worsening law and order situation, revolts, and the limited reach of the state authority. Trade and commerce could not develop and keep pace with the demand. Over time, there was shortage of goods that could be exported from Muslim lands due to agricultural and manufacturing stagnation.

2. Capital Shortfall and Stagnation of the Treasury (*Bait ul Mal*)

The Bait ul Mal was the main repository for revenues of the state. It relied on land taxes (*Usher*), *Jaziya*, sales taxes, and the proceeds of the war. After the Khilafat-i-Rashida period, the then caliphs began to assert absolute control over the treasury. Their top priorities were to meet expenses for running the palace, the basic infrastructure, and also to keep the army satisfied.

During the later Abbasid period, the sources for the Bait ul Mal either dried up or were reduced considerably. It did not have sufficient funds to cope with increased demands at the time when its inputs were also shrinking. There were many reasons for the shrinkage of Bait ul Mal revenues: war reparations were reduced due to the tapering of new conquests, large-scale conversion to Islam dried up the *Jaziya* tax, numerous incidents of rebellions in the remote reaches of the state curtailed the recovery of land taxes and the sales taxes on goods of trade.

3. Overreliance on War Reparations (*Mal-e-Ghanimat*)

The state (and the people) was overreliant on resources captured through warfare. With ever-decreasing numbers of conquests and increasing instances of setbacks, there were diminishing returns. With the weakening of the state's authority meant that the vassal states could withhold war reparations with impunity.

4. Undue Reliance on Voluntary Contributions

During the Holy Prophet's lifetime, there were many instances when the companions responded very generously to the call for voluntary help especially for external campaigns. The state expected voluntary contributions from well-to-do people in times of urgent needs. With the passage of time, the well-to-do people became more materialistic and less motivated to offer help. Since the ruler was on the same side as the elite, he was reluctant to force them to part with their money. In such a case, the burden generally was put on the general populace.

5. Inefficient Taxation System

The problem with the taxation system has also been discussed in chapter 7. The system was open to corruption and pilferage. The people were often dissatisfied with the overzealous

and inconsiderate tax officials that resulted in tax revolts and insurrections. There was also discrimination in the way taxes were levied on the new Muslims.

6. Inefficient Land Distribution and Taxation System

The soldiers were allotted agricultural lands in conquered territories under the Iqta system. It was started in AD 945 by the Abbasid caliphs who at that time were under the suzerainty of the Buyid warlord dynasty. Under this system, military and other officials could be granted proceeds of land revenue in lieu of regular salary. This system was later adopted by Fatimids, Ayyubids, and Mamluks in Egypt and by Seljuqs and Ottomans in Anatolia.

Pros of Iqta:

- The government administrative responsibility was reduced.
- The morale of the military and officials was raised.
- Since the title was not permanent, it impeded the rise of hereditary aristocracy (feudalism).

Cons of Iqta:

- Expeditions suffered because of nonavailability of the military at harvest time.
- The holders of Iqta were also required to pay a fixed amount as tax to the government. This rate was not related to the production level of the land.
- Due to collection problems, government revenues and hence its power were curtailed severely.
- It gave to rise to absentee landlordism, which was an impediment in the development of the land and its productivity.

Contracts between the landlord and the cultivator (*fellah* or *dihqan*) could take many forms:

- *Muzaraa*: Under this arrangement, the cultivator was required to pay a portion of the harvest.
- *Musaqaa*: If the cultivator has to develop the land, then he could retain half of the harvest.
- *Mugharasa*: If the cultivator planted orchard trees and when the trees began to bear fruit, then the cultivator was also entitled to half of the property rights.
- *Mudariba*: This was an equity-based partnership arrangement.

7. Unjust Concentration of Wealth

One of the side effects of concentration of power was the emergence of the elite who enjoyed all sorts of privileges at the pleasure of the ruler. This included top-ranked army,

ministers, governors of provinces, and administrators. Over time, they consolidated both their power and wealth with the approval and connivance of the ruler, contravening the Islamic concept of equality and justice.

b. Transportation and Infrastructure

The vast distances of Muslim lands required a good transportation infrastructure. It included primitive network of roads, inefficient vehicles, and especially insufficient emphasis on seaborne trade. Nondevelopment in this field adversely affected the development of trade and commerce and gave rise to administrative and military resupply problems.

1. Primitive Infrastructure for Roads

One of the main features of the Roman Empire was the excellent networks of roads. The road network allowed their armies to move rapidly and control the vast empire. It also contributed to the longevity of their empire. Travel in Muslim lands was perilous for both the men and the beasts of burden due to harsh climate and nature of the terrain. There was an urgent need to set up clearly demarked roadways and wherever possible cobbled roads regularly interspersed with way stations. Muslim states neglected this important factor by not improving the desert pathways to the detriment of trade and security.

2. Inefficient Land Transport

Due to the nature of the terrain and the climate, camel trains were used both in military and civil transport. This was a slow and an inefficient system. There was a reluctance in using wheeled vehicles (e.g., horse chariots and cargo carts) which could carry much more cargo by weight and volume. In the absence of cobbled roads, these carts could easily get bogged down in sandy soil. Wheeled carts were already in use in Europe and India, where trained artisans and timber were readily available. Had these been used, trade with China would have grown many times over.

3. Lack of Sea Transport

Arabs have been using dhows sailboats as a means of transport within the Indian Ocean. These sailboats were risky in the open ocean and were therefore mainly employed along the coastal sea routes. These only ventured in the open during calm weather conditions. These designs remained static over a long period of time. A more robust design was needed for rough cross-oceanic voyages across the Atlantic and the Pacific. Also needed was an ample supply of good-quality timber such as oak for the construction of robust

vessels. Muslim lands were generally deficient and had to rely on import from Africa or Europe, which hindered large-scale construction.

For navigation, the sailboats relied on the position of the stars and the sun. Muslim scientists were pioneers in spherical trigonometry and the design of navigation instrument such as astrolabe. This technology was necessary under cloudy conditions and for long-range cross-oceanic voyages. Unfortunately, this technology was not widely deployed.

On the other hand, after the Crusades (eleventh century onwards), European powers began to produce better and faster ocean going ships for military and commercial traffic. They cornered the lucrative pilgrim traffic in the Mediterranean. Ibn Zubayr travelled on Genoese and Venetian ships from Muslim Spain to Alexandria and back (Ref: BRJ). From the sixteenth century onwards, Portuguese, Dutch and British ships established lucrative pilgrim routes between Arabia and all the points to the east, from India to Indonesia.

All this had an adverse impact on the development of fast shipborne transport, supply of cheap raw material, and voyages of discovery to distant lands as well as for the defense of the realm.

4. Planning and Structure of Cities

The cities in Muslim lands had generally a radial structure. In the center were the palaces, the seat of the government, and the main mosque; and in the outlying areas were the bazaars and the craft shops. The quality of neighborhood deteriorated according to the distance from the town center. Due to population pressures and the need to be within the defensive walls of the city meant that there was haphazard construction. The municipal officer (*Muhtasib*) could not cope with the congestion and all the associated problems of pestilence and hygiene. The European cities had somewhat better conditions due to the difference in climate, water supply situation, and better municipal administration (mayor, burgomaster, etc.)

c. Production and Technology

As the population in Muslim lands increased, their needs for textiles and utility tools and implements increased likewise. There was also an increased requirement for military hardware. All this required production to be better managed. The deficiency factors were

1. nondevelopment in the area of production
2. general stagnation in technology

1. Nondevelopment in the Area of Production

Production of major items did not progress beyond the handicraft level in most population centers. Unlike Europe, there was no system of apprenticeship or of trade guilds that contributed a great deal to the rapid progress. In Muslim lands, production lagged in the following areas:

- agriculture implements
- iron tools
- textiles
- consumer items (of daily use)
- military hardware
- transport vehicles (ranging from wheeled carts to ships)

It was only during the Ottoman period (sixteenth century and onward) that guilds called *Sinf* and *Hirf* came into being (Ref: EG). They were there primarily to serve the needs of the sultan and the palace for arts, crafts, and textiles. They also worked in the armaments area. All this was too little and too late and did not help in the industrialization of the society or help raise the standard of living of the people.

2. General Stagnation in Technology

The pioneering work by Muslim scientists, physicians, and mathematicians could not be beneficially transferred to the production technology. There was also a shortage of trained or motivated technologists. The following areas were ripe for rapid development by Muslims, but the opportunity for production was not pursued:

- Paper technology
Using Chinese technology, the first paper mill was established in Baghdad in AD 751. Paper became the preferred medium for writing, but wide-scale manufacture was not undertaken. Had that been done, it would and it could have facilitated the growth of learning. It may be noted that paper technology was introduced to Europe through Muslim Spain and Sicily (Ref: WJ).
- Manufacture of different types of gunpowder
- Use of naphtha (raw petroleum that oozed from the ground in Iraq and Persia)
Naphtha could be used as a source of energy, for construction, and in warfare.
- Metal and woodwork
- Mechanization in textile manufacture

There was state monopoly in the production of papyrus, paper, fine textiles, and weapons. In Egypt, the state controlled the import of iron and timber and the export of alum (Ref: EG). This meant that lucrative contracts could go to the chosen few and free enterprise could not thrive under the restrictive environment.

d. Environment and Resource Problems

Muslim lands were handicapped in the environment area. Owing to the lack of rainfall and dry terrain, there was lack of vegetation and forestry-related resources.

1. Environmental Problems

Some researchers (Ref: EG) are of the opinion that the motivation for expansion in the eighth century was caused by climatic changes in the Arabian Peninsula and the search for new pasture land.

Environmental problems affected the development and economic advancement of the Muslim lands. Harsh climate and deforestation contributed to lack of vegetation and shortage of arable land and of grazing grounds.

The lands were dry, and there was scarcity of water for the economy that was mostly agrarian. The riverine lands of Iraq and Egypt supplied most of the agricultural produce and cotton. Even these lands suffered due the failure of rains, and a change in climate that resulted in deforestation reduced agriculture and livestock production. The problem of deforestation and desertification was accentuated due to the need for firewood and harmful overgrazing by goats.

2. Shortage of Resources

Muslim lands in general were deficient in resources such as timber and minerals. The state was forced to import the raw materials from European countries (an expensive and unreliable proposition). Imports of timber from Africa were only possible via the sea route since the overland route was long and impassable.

- Forestry

Shortage of good-quality timber affected production of implements, military hardware, and ships. Europe had large tracts of forests available nearby, but they could put embargoes on its export during conflicts. Transportation problems made the exploitation of African and Asian timber difficult.

- Metals

Metals including iron, tin, and copper were needed in the production of armaments (guns) and other implements. From the eleventh century onward, Germany produced the best and cheapest iron and England had monopoly over tin (Ref: MC). Since the mines in Muslim lands were mostly depleted, there was an increased reliance on outside sources.

- Fuel

There was a shortage of fuel and energy sources, e.g., coal and firewood.

e. Agricultural Problems

Most of Arabia had harsh climate. The population belonged mainly to the warrior and the trader classes and had weak roots in agriculture (Ref: HPM). They made up the shortage in grain and fruit production through imports from Iraq, Syria, and Egypt.

The riverine valleys of the Nile and the Euphrates were the main granaries of the Muslim state. While production of crops did not suffer that much in the Nile floodplain with its good system of irrigation canals, there were many water- and soil-related problems in the Euphrates valley. No effective steps were taken to overcome shortfall in agricultural output in Iraq, Arabia, and Syria that occurred during the seventh to eleventh centuries due to climate change, deforestation, and creeping desertification.

The long-term effect of agricultural and environmental problems was to affect food production. This weakened the state and its ability to defend itself against external attacks from aggressors such as Halaku Khan (Ref: MC).

1. Water Shortage

Water shortage was and is an endemic problem in Muslim lands except in the Nile and the Euphrates valleys. Water shortage severely affected crop production in nonriverine areas. Raising the water from deep wells was one of the problems for which human- or animal-driven machinery was used. There was also shrinkage in grazing lands that affected animal husbandry. Thus, water-rich lands and viable grazing grounds became a major source of contention and everlasting conflicts.

2. Land-Ownership Issues

The system of land ownership was not formalized and titles to the new lands (in Spain) not permanently registered. There was an ever-present risk that the ruler could arbitrarily withdraw land titles and award these to a more preferable party. Due to the uncertainty of ownership, the owners did not invest in the land for increasing its productivity. The Iqta system that granted temporary ownership to the military and high officials resulted in absentee landlordships. They imposed unreasonable demands on the tenet farmers (*Fellaheen*).

3. Degradation of the Soil

There was decrease in land productivity due to the degradation of soil. This had harmful effect on the following areas:

Soil Erosion

- overharvesting of the limited number of oasis for the harvesting of timber
- overgrazing by goats

Rise in the Water Table

Due to overirrigation and the nature of the soil in the Euphrates valley, water table rose that led to salination and erosion of soil. This affected the availability of food and the overall economy of the state.

All the above factors affected the prices of commodities sold in the marketplace. According to an observation by Ibn Khaldun (Ref: IK), prices of basic foodstuffs in the metropolitan cities was low as compared to those in small towns.

When a city is highly developed and has many inhabitants, the prices of necessary foodstuff and corresponding items are low, the prices of luxuries such as seasonings, fruit and the things that go with them are high. When the citizens of a city are few and its civilization weak, the opposite is the case.

This probably explains the influx of large number of poorer people to big cities. The increase in population caused congestion and affected the basic services including water supply and hygiene. This made the outbreaks of contagious diseases such as cholera and plague in big cities to be more likely.

f. Public Health and Contagious Diseases

There have been occurrences of the deadly and contagious plague at regular intervals in Iraq, Syria, and Egypt. These occurrences resulted in serious loss of life in the populace and in the military. These also disrupted the operations of the state, which caused setbacks to the economy. The plague of AD 745 may have been one of the many factors contributing to the weakening of the Umayyads and hastening their downfall by the Abbasids five years later. The plague of AD 941 may have helped the Buyid family to usurp power from the already weakened Abbasid caliphs. The onset of plague around AD 1270 also became a factor in the eventual defeat of the Crusader armies. It also affected Muslim armies but to a smaller extent since these could be easily replenished.

Chapter 9

Where Do We Go from Here?

What Has Been Done So Far?

The previous chapters have dealt with information analysis and diagnostics. The main purpose was to discover and highlight as many drawbacks as possible before proposing any solutions. This chapter aims at describing the methodology for designing and implementing plans for improvement.

The following has been achieved so far:

- Collection of historical data pertaining to achievements, victories, defeats and civil strife, dynasties and rulers, etc., drawn from a large number of sources.
- Portrayal of the historical data in graphical form to see changes and trends.
- Investigation into what is meant by the terms “progress” and “decline.”
- Identification of quantitative indicators for ascertaining the levels of progress or decline.
- Determination of correlations between the indicators for tracking changes.
- Computation of performance measure for computing the levels of progress or decline based on the values of indicators.
- Summary of the major achievements and strengths of the medieval period.

- Refinement of the five general areas of deficiencies: (1) behavior and community; (2) religion and doctrine; (3) knowledge; (4) governance, politics, and military; and (5) economy, production, and trade into twenty deficiency subareas. Portrayal of subjective relationships.
- Successive refinement of twenty-one subareas into one hundred ten deficiency factors.
- Justification of the deficiency factors on the basis of rational analysis and the historical facts.

With all this information at our disposal, the question arises, what to do with this? There can be two approaches to utilize this information:

The first approach is based on quantitative analysis of the input-output flow model shown in figure 2, chapter 1. The objective of this modeling can be to identify those set of policies and actions that gave rise to the changes in weaknesses and strengths for each period, i.e. the medieval, dynastic consolidation and the colonial.

Under quantitative modeling, the strengths and weaknesses of a given period, say the medieval period, can be exported to the next period, that of dynastic consolidation and so on.

Knowing the output of each period, it should be theoretically possible to determine its internal behavioral model in terms of the particular policies and actions that were instrumental in producing the results. We can learn from such experience to help pinpoint for each period the particular policies which worked and those which did not. This information could be very useful in planning for improvement from the current situation.

Presently, the area of quantitative modeling, specially for non-deterministic systems is in its infancy and not well developed, therefore comprehensive and detailed modeling is beyond the scope of this work.

The second approach is simpler and can be of immediate utility for the present times. Its intuitive approach does not require detailed quantitative analysis or modeling. All that is needed is to filter out the strengths and deficiencies from each era that are irrelevant or non-applicable. This can be done through interpretation and inference based on the historical data as well as the current observations. This can be done by taking stock of the current situation of the Muslim states and societies to see which of the deficiencies of the medieval era

managed to pass through unscathed to the present times. These deficiencies can be prioritized according to the benefit accruing if they are mitigated or eliminated. In other words, we would like to see which improvements produce the biggest bang for the buck.

Once an agreeable and feasible set of deficiencies is obtained, we can proceed to the prescriptive stage that deals with the planning and the implementation of improvement policies. Since it involves a huge number of policies that need to be designed, implemented, and monitored, complete description of this stage can be challenging in terms of extent and complexity. It would require a separate volume to do justice to the subject. For the present, we would confine ourselves to the basic methodology and the process for improvement rather than the in-depth treatment.

The issue of universals versus the particulars

In discussing the solutions we have to keep in mind that there are vast differences between the different countries, regions and societies. For example problem/solution pairings of Malaysian Muslims are so different from those from Algeria, Darfur, Chechnya, Pakistan or the UK. Given the nature, the magnitude and priorities of the problems and their specific environment makes it extremely hard to propose custom-made solutions that would deliver satisfactory results on a turn-key basis. Such solutions obviously are outside the scope of this text. It is for the subject-matter experts who are well-versed in the problems for specific countries, regions and societies to propose workable solutions to their specific problems.

All we can hope is for finding of the greatest common intersection of deficiencies based on the analysis and inference done so far such that their solutions are not only palatable to the majority of people but also provide an optimum 'bang for the buck'. However it is still not guaranteed that these solutions will be universally applicable and acceptable.

Faced with the immensity of the problem, we are constrained to use the generic-particular metaphor. We can also resort to the object oriented methodology's 'class' paradigm, in which the top level object can be endowed with certain (deficiency) attributes and exhibit (deficiency) behaviors. The objective is to find the greatest set of problems that are common to all societies. These can be augmented or modified in the case of the progeny 'sub-classes' by the real subject-matter-experts.

Which Deficiencies Should Be Targeted for Improvement?

Looking at the contemporary Muslim societies and countries, we observe that not all the nearly one hundred deficiency factors identified are relevant today. It should therefore be possible to pare these down to a smaller number.

The following list shows the 'endemic' deficiency factors that have managed to filter through all the intervening periods and to reach us in the present age. These chronic factors plus the new ones generated during our own times must be targeted for control, mitigation and solution.

a. Behavior and Community Matters

Personal Behavior and Attitude

knowledge shortfall and illiteracy
nonadherence to Islamic principles
personal attitudes

Personal Belief

acceptance of the notions of Taqdeer and Taqleed
undue importance to minor matters of rituals

Social Outlook

acquiescence and tolerance of feudalism

Community and Gender

lack of teamwork
community level empowerment shortfall
deterioration of social cover for the underprivileged
attitude toward women

b. Religious Doctrine and the Role of the Ulema

moving away from rationalism and Ijtihad
lack of tolerance for differing points of view
managing and controlling divisive factors

c. Knowledge Infrastructure

limited support of the education system
obsolete religious syllabus (*Deeni Dars*)

d. Politics, Governance, and Defense

Political System

concentration of absolute power in a single person
messy process for transition of power
people disempowerment

Fragile Loyalties

unsteady loyalties of the elite

Justice, Law, and Order

politically subservient judicial system
degraded law and order

Governance and Statecraft

incompetent and corrupt officials
misuse of public funds
inadequate support of institutions for public welfare

Defense

lack of commitment by the officer corps
nondevelopment of defense equipment

e. Economy, Production, and Trade

unjust concentration of wealth
inefficient taxation system
general stagnation in technology
nonawareness of environmental problems
unjust land ownership

What Are the Most Pressing Issues of the Present Times?

The problem facing the Muslim societies are well known and documented. The following issues have been included to highlight the important ones. The list is by no means exhaustive or complete. It is the utmost responsibility of everybody to work as team member in order to pull the society out of its sad predicament. The most pressing issues facing the states and their citizens include the following:

1. Excessive Diversity

Muslim societies are divided along several fault lines, including

- economically endowed vs. deprived. This diversity is observable in the following cases:

- + water rich vs. water deprived
- + food rich vs. food-deprived
- + gated communities vs. slum dwellers
- + access to health services vs. without medical support
- + SUV owners vs. animal-driven cart riders vs. transport challenged
- + high-society fashionables vs. people not affording basic clothing
- + educated vs. illiterate

- landowning feudals vs. semislavish labor
- male chauvinists vs. oppressed women
- employed vs. unemployed
- megacity dwellers vs. villagers
- elites having free and uncontrolled access to capital vs. capital deprived
- industrial conglomerates vs. day laborers
- military officer class vs. common civilian
- bureaucratic class vs. common citizen
- high-handed police vs. common citizen
- perpetrators of crime vs. victims
- ethnicity based: tribal, caste, regional, linguistic
- practice of faith (Sunni, Shia, other subgroups or minorities)
- practitioners of religion vs. those who deemphasize or belittle the faith
- enlightened extremism vs. conservative extremism
- English/French-speaking elite vs. vernacular speakers
- educated at exclusive institutions vs. madrassa educated
- IT savvy vs. IT nonconversant

It is not that such dissimilarities do not exist in other countries; but it is their extent, pervasiveness, and permanency that completely debilitate the common person who happens to be on the other side of the divide. It is not a case of "benign neglect" by the elite for the populace on the other side of the track but of malignant antipathy. The poor and disposed reciprocate these feelings through open or hidden resentment. The feelings of distrust are further exacerbated because the elite and their offspring regard their self-assumed privileges as god-given rights. The elite further cement their hold through an elaborate mutual-help network based on business connections, social contacts, and even marriage contracts.

The elite manage the resentment through a carefully crafted combination of propaganda, award of trivial benefits on selective basis, or through force. In case of the oil-rich economies, these states try to muffle resentment through rewards in cash and kind or through the award of lucrative and cushy jobs or contracts as well as through brutal and inhumane punishments. For resource-poor countries, it is done through a judicious injection of capital (usually through long-term loans) for subsidizing food and other staples in order that the discontentment does not come to a boil. All these policies help to

maintain the status quo and to accentuate rather than to mitigate the diversities. The net result is a deeply polarized society at war with itself. It cannot synergize the enormous potential of the people through recognition, training, and teamwork.

2. Disempowered Populace

The main consequence of the continued diversity is the concentration of power in the elite on one hand and dispossession of the rights of the rest on the other. The populace rightly feels as if they are still under the heavy arm of the colonial rule. This time though the colonists happen to be from among them, which for the majority is doubly unacceptable.

Elections and access to assemblies remain within the purview of the landowning class, feudals, and elite drawn from the military, business, and bureaucracy. The assemblies are not representative of the people's hopes and aspirations. They are basically there to rubber-stamp the will of the supreme ruler and his coterie.

The freedom of expression or association of the populace is also stifled through the use of strong arm of the state. For this, the rulers have the acquiescence of the West who considers the Muslim street to be undeserving of their democratic rights unless they become "enlightened" as well as subservient to the West. In this respect, the rulers are either consciously or unwittingly overlooking the experience of the West that owed much of its political, economic, and technological strength to people empowerment (dating back to Magna Carta of AD 1215). It is mainly through egalitarianism (that had also been the hallmark of early Muslim rule) that the Western nations been able to unleash the enormous creative forces.

3. Loss of Ethical and Religious Values

Continued existence of irreconcilable differences gives rise to a sense of insecurity. The populace abhor the elite, who in turn constantly live under the fear of violent rebellion. Each notable family has instituted plan B under which vast amount of capital is transferred abroad. In this antagonistic atmosphere, the main consideration is that of self-survival and self-preservation, and every form of corruption or injustice is deemed legitimate. Ethical and religious values are set aside or trampled intentionally. This drives the antagonists further apart and erodes the foundation of trust and mutual respect upon which a civilized society stands.

4. Legal Rights and Justice

Although laws to preserve the life, liberty, and freedom of the populace exist on paper, the institutions that are supposed to ensure that are neither independent nor strong enough. The courts work under the aegis of the rulers. They have to encounter enormous

pressures and interference by political, executive, or even the criminal elements. Under these circumstances, due process can be easily bypassed and injustices meted out to the aggrieved parties. Cases are held in abeyance resulting in backlogs, delays, and wastage. The populace becomes disillusioned with the system and sometimes resorts to extrajudicial means to resolve disputes. There also exists a dichotomy between the civil and the religious laws and an ongoing struggle for primacy by proponents of both systems.

5. Educational Deficit

The importance of imparting well-rounded education cannot be overemphasized in the development and progress of a viable and enlightened society. No society can afford to sit on their laurels and be left behind defenseless and at the mercy of powers that are knowledge rich and are able to synergize the efforts of their population.

In the Muslim societies, educational deficits exist due to factors including low priority assigned to education in the general scheme of things, deficient policies, administrative mismanagement, limited budgets, substandard infrastructure and equipment, low-salaried teachers with patchy competence levels, limited access for the have-nots, women and minorities, etc.

The present educational system is not immune from the effects of extreme diversity existing in the societies. In countries that faced direct colonial rule, such as Algeria, Morocco, Egypt, Jordan, Pakistan, Malaysia, and others, there exist at least four systems of preuniversity education. The multiplicity of systems ensures the maintenance of the status quo. It does not and has not contributed toward the homogenization of the society or for progress in the scientific and technological fields.

1. The elitist English/French education schooling system exists to this day. It maintains its links to colonial legacy in terms of cultural tradition, course material, and examination standards. It imposes barriers such as exorbitant fees and culturally loaded aptitude tests to restrict entry only for the privileged few. Its emphasis is not on science and technology but on liberal arts. Being articulate and culturally sophisticated, its graduates find it easy to become politically influential. They are groomed for plum and soft jobs in the industry, the army, and the civil service. They also have access to scholarships and resources for overseas training to obtain degrees and diplomas, credentials that guarantee them lifelong job security, and the attendant benefits that are incommensurate with their services or their expertise.
2. State-owned system serves the majority of the middle class. Commonly the medium of instruction is the national language. This system has the largest enrollment at the

- secondary level but without matching budget, resources, or the infrastructure needed to impart a high-class education. The bulk of professional class—doctors, engineers, scientists, and lawyers—can trace their initial education to these institutions.
3. Privately owned institutions help to bridge the gap between the elite institutions and the state-owned system. Their standards are nonuniform because of lack of oversight and enforcement.
 4. Madrassa-based system has the largest enrollment among the preschool and elementary school level. Madrassas fill a much-needed service for the section of the population who cannot afford other more expensive systems. It allows large number of children to become literate and also acquire familiarity with basic rituals of the faith. These schools are local affairs and bereft of infrastructure and teaching material and without official recognition or support. In general their teachers are not trained in the finer aspects of Islamic theology. They also have minimal knowledge in secular and technical subjects. Their emoluments, if any, are meagre; and often they are compelled to live on charity. This is degrading not only for them but also for the students they teach and the community they live in.

There exist few higher-level madrassas, called *Dar ul Ulooms* (Houses of Knowledge), which offer advanced education and research in Islamic jurisprudence and faith matters. Their primary objective is to produce graduates who can serve as imams of large mosques or teachers for the mainstream schools. These are private initiatives and are run as cooperative ventures. Till recently, they have been following antiquated curriculums that are out of tune with modern times. For instance, the classic curriculum, *Dars-i-Nizami*, was declared even by Emperor Aurangzeb to be inadequate for seventeenth century's requirements. Of late, there have been some efforts to introduce modern subjects, but again they have been hampered with shortage of equipment and trained teachers.

Muslim societies are handicapped because they cannot put the madrassa system to its fullest potential and beneficial use.

6. Political Subservience

There are fifty-five member states of the Organization of Islamic Countries (OIC). Of these, with the possible exception of two or three, all other states are in visible or subsurface turmoil. All other states are under oligarchic rule by despots under the guise of monarchs, military generals, or presidents for life.

In most cases, the rulers are beholden for their security, existence, or longevity to one of the Western powers under whose sphere of influence their country happens to be. The

West provides them with a comfort zone that obliges them to remain as their perennial clients. This situation is summed up by the following quote:

These states have many names, but all of these banana republics have the same basic structure: at the top of these states is a man who has grabbed power or inherited it. In many cases, this man is a military general. Behind this man, stand a small number of military and civilian persons in key positions. Depending on the military, economic, and strategic needs of the American, British, or French governments, the man visible to all in this pyramidal structure is able to bargain a little on the price and conditions under which that state would fulfill the desired objectives. Clever generals are able to extract maximum benefits for maximum number of people associated with them, this keeps everyone happy. (Ref: Dr. Muzaffar Iqbal, The News, Karachi, November 27, 2007)

The rulers and the elite pine for the guidance and direction of their masters who in turn are not averse to oblige and micromanage their day-to-day operations. They have no qualms at relinquishing the sovereignty of their states, much to the chagrin of their own people. They know full well that persistent or even occasional deviations from the dictated guidelines can have serious consequences. These can range from the throttling of the aid money, recall of loans, freezing of legitimate funds including those from oil revenue, denial of student and visitation visas, technology-transfer embargoes, covert operations, arms embargo, to finally regime change through armed intervention accompanied by wholesale destruction.

Role of Muslim Organizations

It would be useful to understand why unlike the Western powers who have established flourishing military, political, and economic institutions, Muslim states that need these most have been unable to do that, so far. Each country exists in splendid isolation, constantly living in fear, ill prepared and defenseless against the onslaught of aggressors. This state of affairs is due not only to the political immaturity and ineptness of their rulers but also to their profound fear of the threats that hang like Damocles' swords over them. This explains why organizations such as OIC are and continue to remain ineffective and irrelevant. Looking at their performance so far, it is evident that their real *raison d'être* is not to unite these countries for a common cause but its exact opposite. These organizations are apparently there to deflect energies and to squelch all initiatives for real progress and enlightenment.

It has been proven time and again that multilateral organizations such as the OIC are not the proper platform for initiating or implementing projects that are of real

value. To do something productive, it is suggested that countries motivated to solve problems of common interests in areas of technology, education, and others should enter into bilateral or trilateral agreements. Such arrangements can have better chance of success as these can be more focussed, easier to manage, and relatively free of hurdles.

Role of the Rulers

To be a ruler under such circumstances is not easy. They have to tread a fine line in order to satisfy opposing and often conflicting requirements. Some of the important considerations from their viewpoint are

- How to ensure self-preservation and continuation of their rule for as long as possible?
- How not to incur the displeasure of the superpower?
- How to preserve the territorial integrity of the country?
- How to preserve the power, position, and privileges of their constituencies (feudal and industrial classes, bureaucracies, and the articulate and privileged elite)?
- How to keep the latent dissatisfaction in the populace and interests groups (students, religious factions, etc.) from boiling over and spiralling out of control?

Ostensibly, the rulers have other lower priority considerations, but these are seldom pursued sincerely, if ever at all:

- To what extent can they express their loyalty and patriotism for the country?
- To what extent can they express fealty to their faith, to their conscience, or to the well-being of the Ummah at large?
- How feasible is it to empower the people through representative institutions?
- How to improve governance, delivery of justice, and law and order?
- How to implement economic growth, i.e., development of industry, infrastructure, and agriculture?
- How to develop the educational system?
- How to improve social services and to mitigate the effects of poverty?
- How to satisfy the demand for basic rights including freedom of expression and association?

Actions and Behavior of the Current Rulers

The main point to emerge from this study is that the foremost "villain de piece" of the decline were the rulers who got their power through dynastic succession or by force of arms. Most of them did not possess the strength of character, belief, vision, or competence expected of a ruler of the Muslim state. Not far behind in this misdeed were the elite

and sycophants who neglecting their obligations for the economic, security, educational, and cultural development of the people skimmed off the resources of the state with or without the connivance of the ruler. They could also change allegiances to anybody from anywhere at the drop of a silver dirham. In both cases, the situation is the same today, only the coinage has changed.

Most contemporary Muslim rulers profess to be engaged in the development and progress of the country, but in reality, they are not. They implement grandiose projects aimed at distracting the people and perpetuating their own rule. They are not capable of planning or implementing projects that can be of strategic value, e.g., structure for comprehensive education or investments in science and technology that would make the countries self-sufficient in agricultural, industrial, or defense production. Their situation is an apt example of the Peter Principle, i.e., they have been propelled into positions of responsibility that are far beyond their level of competence. Therefore, the longer they stay in power, the more is the cumulative pileup of their blunders.

Being in position of uncontested power they regard themselves as the sole repository of wisdom to the exclusion of everybody else. Just like the medieval rulers, they exercise arbitrary powers. At times, their actions prove that they are not bound by their responsibilities either to the people, or to the dictates of their own conscious. Despite living in modern times they break with impunity most rules of civilized and enlightened behavior or the democratic norms.

The rulers go out of their way to ensure that the people are not seen to express their protests against aggression and human rights violations being perpetrated by the West against the Muslim people worldwide under the guise of "liberty and freedom." They do this using a combination of selective rewards (plum job, contracts, land grants, scholarships for foreign studies, channelling of aid funds, etc.) and coercive practices (withdrawal of rights, procedural or physical intimidation, or worse). Unlike the leaders of the democratic countries who hold the life and liberty of their citizens to be sacrosanct, these rulers have no compunction in conducting 'operations' against their own people involving bloodshed at the slightest pretext or prompting.

The populace is kept just above the poverty threshold so that their total attention is focussed on day-to-day survival rather than for demanding good governance or in exercising their political and social rights. One strategy that is adopted to keep the populace somewhat satisfied is through subsidies that lower the prices of basic commodities and foodstuffs available mainly from the state-run stores.

The rulers rule their countries as 'franchisees' of the West, where in lieu of their subservience they are given free hand over the resources and aid money along with a safe passage to the West in case the going gets really tough.

They find themselves in a tough bind: on the one hand they are hostages to the interests of their sponsors and on the other they are virtual prisoners in their elaborate palaces. Hiding behind expensive layers of security, they have no rapport with the governed, appearing only at carefully choreographed functions or behind the safety of the television screen. This disconnect is a major impediment in the synergistic development of their countries.

Instead of striving for unity, rulers of some of the countries have no qualms in either permitting or engaging in covert operations or in facilitating direct attacks against other Muslim countries when goaded to do so by the Western powers.

While holding their own people in utter disdain, they become paragon of humility and "bonhomie" even towards the lowest ranking visiting officials from the West. Even more profoundly evident is their obsequious behavior in presence of Western leaders. Most of the people, view this behavior as most humiliating and disgraceful.

The rulers are constantly looking for actions that would increase their "brownie points" in the eyes of their sponsors. They remain mute and stoic even when their fellow countries are subjected to threats, blockades and grave incidences of human deprivation. Nor do they act in unison or dare raise their voice even when these countries are being devastated and the people's life and liberty are being trampled due to outright aggression. When pressed, they defend their inaction and impotence as deliberate policies based on supreme sagacity and long-term pragmatism.

They harp on staid resolutions of the United Nations as if these were sacred edicts which their antagonists hold in utter disdain.

These rulers collude with the external powers that launch attacks under frivolous pretexts and trumped up charges. They know full well that the external forces under the guise of promotion of 'democracy', 'freedom' and 'liberty', will indulge in 'destructive construction', and occupation that will lead to deprivation, death and deleterious effects that may linger on for generations to come.

The behavior of most Muslim rulers is indefensible from the viewpoints of both secular humanism and faith. Their actions are directly opposed to enlightened fair play, basic human morality or ethics, and democratic norms, qualities that are hallmark of Western democracies, which these rulers profess to be emulating but found wanting.

In the following instances, the rulers are also in clear violation of the imperatives of the faith and the examples set by the Holy Prophet and the Righteous Caliphs:

- Not carrying the onerous responsibility as rulers to safeguard the life, limb, property, and honor of the populace.

- Not ensuring justice to prevail in the land (Quran: 4:48, 4:135).
- By not being merciful towards the believers (Quran: 48:29)
- Through disunity, aiding and abetting the transgressor (Quran: 16:92).
- By being weak militarily. By failing to take defensive measure to deter and reverse aggression (Quran: 8:60).

Slogans and props used by the Rulers

It may be noted that most of the past and recent attempts by the rulers to revitalize their countries have proven hollow and have failed to deliver. These include Ataturk of Turkey's plan for modernization, Nasser of Egypt slogan of 'Arab nationalism', Shah of Iran's proclamation of 'white revolution' or Pakistan's current catch phrase of 'enlightened moderation' (coined at considerable expense by a public relations firm of New York), etc. Clichés such as 'ground realities' and 'national interest' are euphemisms for inaction and complete subservience. They regard themselves as the sole arbiters of 'national interest'. In reality, it is not the 'interest' of their own nations that they are professing to safeguard but it is that of their sponsors'.

All these slogans are designed as propaganda props and diversionary tactics to help maintain the status quo for as long as possible. After their failure to deliver, newer and more catchy slogans are introduced at considerable cost. The main reason of such failures is that the slogans are not backed by matching actions and therefore do not get a buy-in from their own populations.

The proponents of the slogans are not only ill-equipped in terms of competency and sincerity but under the pretext of reform they exhibit extreme arrogance and indulgence in misuse of authority and corruption, practices are total anathema to a participative democratic system.

8. Role of Non-Governmental Organizations

Recent attempts by the foreign supported non-governmental organizations, NGOs to participate in the development process are viewed by the populace as part of the cultural onslaught. They have not been able to make deep inroads in the amelioration of the society or the empowerment of the people. One of the reasons is that the funds meant to be spent on productive ventures are greatly depleted due to pilferage and mismanagement. In addition, there exists a cultural chasm between NGOs and the people who view these as an extension of the authoritarian rule.

On the other hand, locally based NGOs such as Pakistan's Edhi foundation or Bangladesh's Grameen Bank are much more successful. They continue to be much more effective in reducing poverty, empowerment of the people and filling the enormous void in the social security areas. It is much more efficient to promote and nurture such indigenous NGOs.

9. Role of the Elite

One of the most unfortunate phenomena is the failure of the educated elite to rise above their own vested interests in favour of the development of their countries. In most cases, they have used their influence, power of persuasion and articulation to enhance and consolidate their privileges and perks.

In reality they practice economic, social and political apartheid vis-à-vis their under-privileged fellow countrymen. They have little confidence in the future of their societies. It is not surprising that they are constantly engaged in transferring their liquid assets to foreign havens to buy secure investments in the form of real-estates, franchises and bank accounts.

They are very articulate in singing the praises of democracy, human rights and the rule of law, but whenever these are put to real test, they fail miserably. On numerous occasions, in countries such as Pakistan, Algeria and Egypt, the real aims of the elites have been exposed. Whenever their vital interests were involved, they have exhibited their true colours by collaborating with the corrupt rulers and abandoning their lofty principles of human rights, liberalism, press freedom, democracy or universal justice.

Despite being exposed to and schooled in democratic norms at top universities of the West, on their return the members of the elite do not let go their ingrained monarchist or feudal outlook. In fact, they begin to regard their new station to be an order of magnitude above that of the common person and thus become even more disconnected with his aspirations. From the view point of such elite, 'liberalism' implies freedom only in terms of their lifestyle and the pursuit of pleasure. They want their lifestyle to be exactly congruent to that in the West, whether or not their economies can afford it or their cultural values can support it. They want to push aside anything or anybody that dares to stand in their way. For instance those seeking the rights of the poor or adhering to the norms of the faith.

Cultural Subservience

Muslim societies are under enormous pressure to adopt globalized culture and norms at the expense of their heritage. There is a concerted campaign ongoing to sell the glamorous lifestyle and attractions to the youth. Undoubtedly, there are some positive aspects of the globalization of culture, but many are not. Most of the elite are beholden

to superficial symbols of cultural advancement. They regard proliferation of pop-culture, fashion shows and fast-food joints as the prime metric of progress. The youth of the elite live an avant-garde lifestyle based on frivolous consumption that disregards the plight of the have-nots living right in their midst. Their ever-indulgent parents allow them to escape into song, style, fashion, drama, sensory titillation and more. Drained by these self-gratifying activities they have little time or inclination left to confront the enormous issues of rebuilding the society. It remains a challenge to wean the youth away from these seductions and towards their responsibilities.

Antagonism towards religious norms

As nouveau arrivistes in the Western lifestyle, the elite and the intelligentsia endeavour hard to show that they have been liberated from the observance of conventional religious norms. They regard practicing of the faith as superfluous and the people who exhort this to be archaic and irrelevant. They consider it fashionable to devalue religious symbols and deprecate the rituals. They have intense dislike and antagonism against the leaders of the faith. Their goals include the following,

How to denigrate and eliminate the faith factor from the cultural milieu?

How to recast specific Islamic precepts that they consider to be outside the global cultural norms?

In this venture, the elite have formidable allies at their side, including most of the western governments, the media and the evangelist church that provide them with direction, political support and material help. This infuses in the elite a sense of superiority and ownership of the resources of their countries. In addition, they get imbued with the feeling that they are above any cultural and faith related constraints.

The elite are arguing that recourse to the religious norms as specified by the mullahs and their cohorts will revert the society to the 'dark ages' of the first millennium and will destroy their plans for the instant transformation. There are major flaws in their arguments. Firstly no society can instantly absorb and also implement all the grandiose ideas of enlightenment and humanism. Secondly due to the huge dichotomy between the declarations and the actions of the elite coupled with their incompetence and insincerity they are ill-equipped for the leadership role.

The main pre-requisites of progress are provision of justice, infusion of discipline and elimination of inequality. In their present state of preparedness the elite will never be able to reengineer the society on their own. They would need help from all quarters. Owing to the pre-eminence of religion, the role and influence of the mullahs cannot be glossed over. The elite and the rulers cannot enforce their viewpoint on the populace just on the basis of state power, lure of money or glamorous lifestyle. The elite should realize that it is extremely

hard and possibly destructive to wean away the Muslim society from its roots. There are a host of religious rituals, ceremonies, and festivals that are conducted by the mullahs and are ingrained in the psyche of the Muslim society. The ruling elite and the humanists have nothing noteworthy to replace these.

The mullahs should not be treated as the part of the problem but instead their influence and expertise should be harnessed towards the solution. The elite should realize that there is nothing wrong with infusing good behavior and a modicum of discipline in our lives through religion. Why not then make an intelligent and productive use of the rules of the faith in order to instil discipline in our societies?

In fact, observance of religious rules and rituals provides a framework for development. Societies that have performed so well over the past few centuries owe a lot to the observance of religious rituals. Closer observance of the structure of the European institutions including the judiciary, the courts, the parliament, the universities, etc., upon which the edifice of their civilization stands, will reveal that they are based on the ecclesiastical model. The admirable Anglo-Saxon work-ethic and team-work is deeply rooted in the teachings of the Protestant faith.

Same can be said about the progress of Japan, which owes a lot to their highly ritualized society (samurai code, tea ceremony, etc.) and Shinto philosophy that instilled a strong work ethic and discipline. Far from being a hindrance, religious and secular rituals provide a most useful training ground for discipline and teamwork.

So What Are the Good Points?

We have listed many problems facing the Muslim societies and discussed in detail their weaknesses that are undoubtedly profound and serious. However, the situation is not all bleak. There should be hope for the future. There must be some good points that are innate in the Muslim societies and people that have sustained them for so long. We have seen in the history that the same strengths have helped Muslims recover after enormous disasters, carnages, and setbacks. So why not this time? Poet Iqbal's simile 'given the right conditions this soil is very fertile', refers to the same situation we find ourselves in today.

The following strengths can be regarded as the foundation upon which the edifice of recovery and renaissance can be built.

- deep-seated love for the faith
- resoluteness in the face of overwhelming odds
- hopefulness: belief that calamities do not last for long
- belief that only faith provides the point to which they can return and congregate
- innate talent of the people

- population size and its makeup
- strategic landmass
- availability of strategic resources
- awareness about the rich legacy of achievements
- universal realization that improvements must be made

These strengths can be used to counteract the deficiencies. Detailed investigation is required to elaborate these strengths as well as to identify others. These strengths can then be incorporated into one or more plans for improvement.

What Needs To Be Done?

The above discussion provides an insight regarding where Muslim societies stand in the contemporary world and their urgent need for improvement. We will now describe the outlines of the improvement process.

Why Not Doing Something Is Not an Option?

Muslim societies have to do something to come out of the morass. They cannot allow the status quo to linger on. In case of physical systems, it is well known that defects tend to feed on each other leading to catastrophic failures. The same analogy can be applied to the social systems, where one deficiency, say, political backwardness, can result in the emergence of repressive dictatorship with its myriad drawbacks. The metaphor of last straw on the camel's back is true in case of the Muslim societies where a small event can all of a sudden trigger a massive and irrecoverable catastrophe.

Similarly, a series of small corrective actions can hold back the onset of catastrophic failure. This is needed in order to scrounge some breathing space prior to the planning of a rigorous course of action. Since the problems facing the Muslim societies are so entrenched and complex, halfhearted and ill-conceived remedies are not going to work. Instead of one grandiose plan, it would be better to distribute the work. This will give better chances of success since small plans are easier to start, execute, and monitor. Each small plan should focus on a small set of deficiencies for a particular administrative region. Once this is done in one country, others may apply the same solution or customize it to fit their requirements.

Before embarking along this road, the Muslim societies must define and agree upon its final goal and vision. This may be a difficult task as that vision statement is supposed to encompass a large number of considerations.

Vision Statement for Improvement

Improvement requires the articulation of a vision statement to serve as the long-term goal. This should be cognizant of the aspirations of the people for a better and a more respectable life and at the same time abide by the requirements of the faith. The following vision statement is proposed,

To evolve Muslim societies so that they are secure, at peace, and globally at the forefront of intellectual and material progress, allowing people of all faiths freedoms to develop their full potential, and for Muslims to perform their obligations under Haquq ul Allah (duties toward God) and Haquq ul Ibad (duties toward the created things) effectively.

The placement of the vision statement in the overall scheme of things is shown in figure 27. The objective is to achieve the vision starting from where we currently are in terms of our weaknesses and strengths. This would require a "road map" or a detailed plan to be executed in order to convey Muslim societies to their destination. The larger the difference between what we eventually want and where we are currently placed will determine the "length" of the road map and the time taken to traverse it.

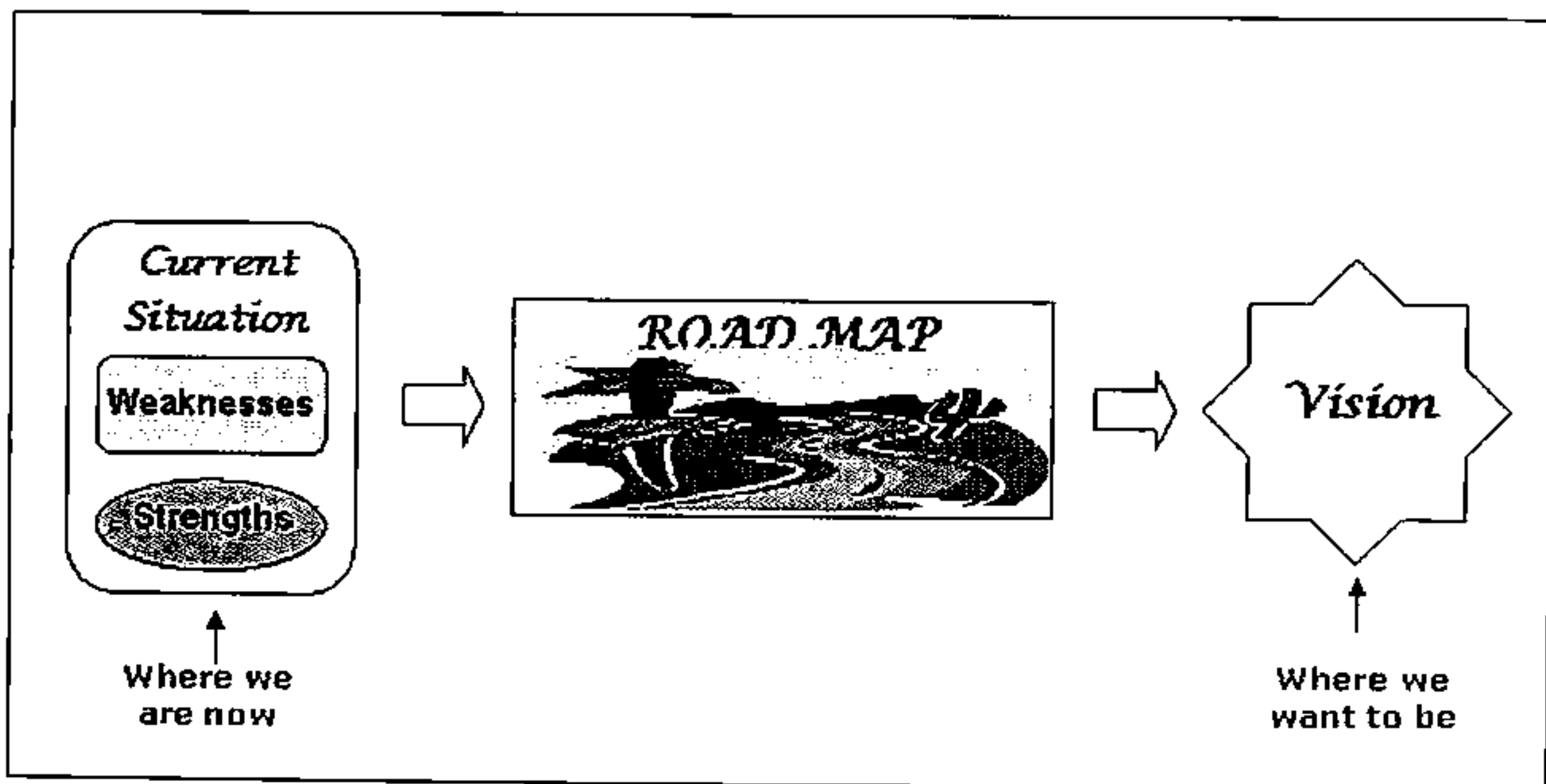


Figure 27: Road Map toward the Vision

The plan will include specific policies to rectify the current weaknesses and build on and augment the strengths. It would also require commitment of the society and its leaders as well as availability of necessary resources and infrastructure.

What Should Be the Process for the Improvement of Societies

For tackling this complex problem, we need a methodical approach. A managed project can be viewed as traversal along the road map that has "milestones" for tracking progress and to determine how far we are from the destination. One of the functions of project management plan is to identify and assign these at suitable points along the road map, figure 28. Another important function of the project management is to determine the "length" of the road map by determining the difference between our current state and the state corresponding to the vision. The larger this difference is, the longer is the time and larger will be the number and quality of resources needed to reach the destination. Of course, the total time can be reduced through better management and more efficient resource usage.

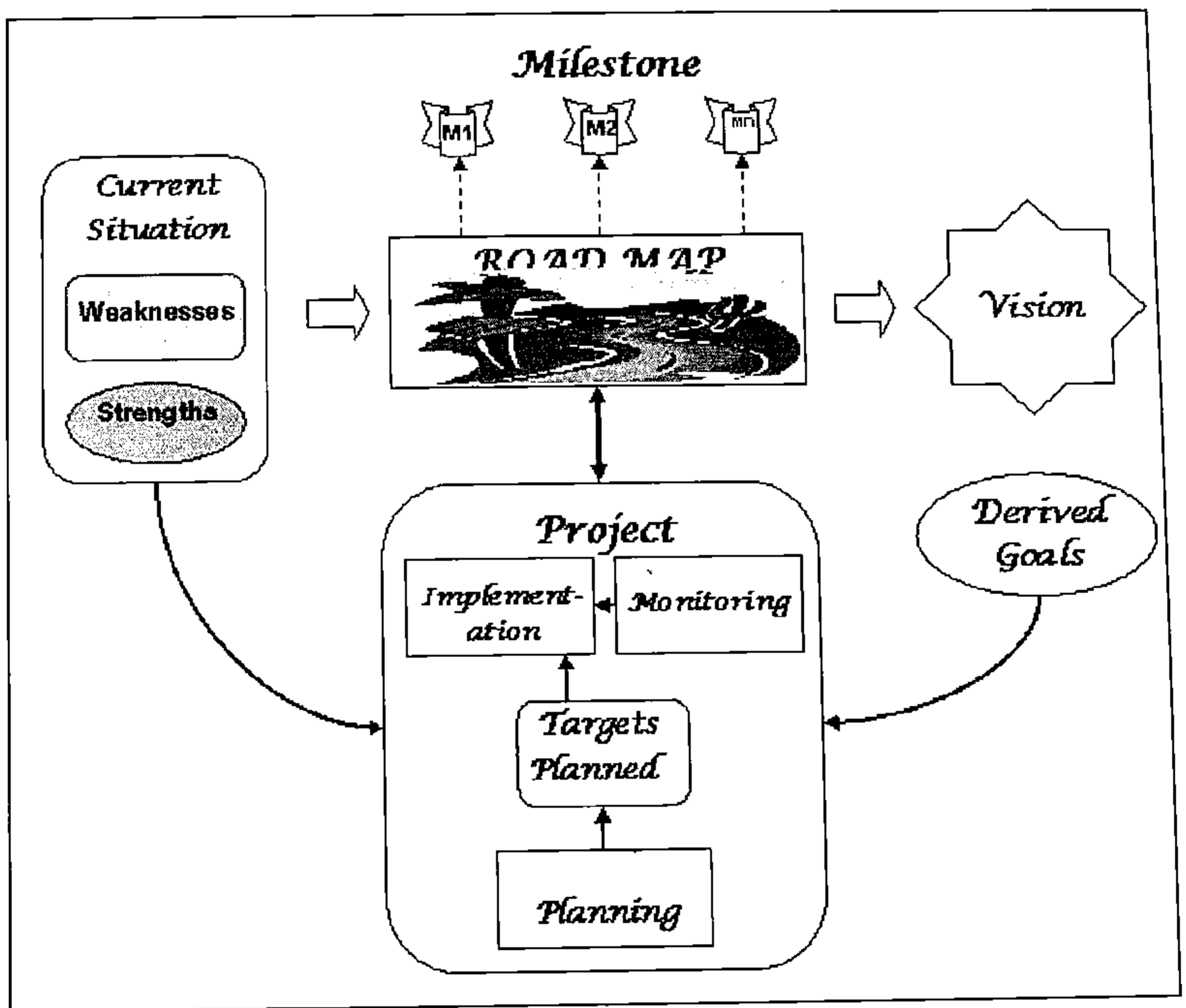


Figure 28: Achieving the Vision: Project Planning and Implementation

A typical project management scheme requires as inputs the situational information as well as the list of desired goals. The goals are a more tangible representation and refinement of the vision statement.

It would require the combined effort of all segments of the society to interpret the vision statement and derive the goals backed by their full agreement and commitment. The following list of goals is given for illustrative purposes. It will have to be revamped and recast according to the views and opinions of the stakeholders. Buy-in will be needed from the rulers, political groups, intelligentsia, various interest groups as well as the populace for the goals to be credible.

1. provision of a just and equal-access judicial system
2. ensuring fundamental human rights and basic freedoms for everybody
3. provision of compulsory and universal education
4. ensuring security of the states against external threats
5. ensuring the sanctity of life, liberty, and honor of everybody
6. achieving self-reliance and growth in economy, industry, and food production
7. provision of universal health care and clean water supply
8. provision of infrastructure for transportation and commerce

What Should Be the Process for Improvement at the Individual Level

Improvements at the societal or the state level cannot be made unless the building blocks, i.e., the individuals and the groups, are also improved. It is well known that success begets success. An improvement, howsoever small, can provide an incentive to other individuals and the group to do the same. In a cooperative environment, one improvement can feed on another, and very soon the society can reach a "critical mass" after which successes can become self-perpetuating. The question is how to start with the most important first step.

In his book *Ihya ul Ulum al-Din* (Revival of Knowledge about the Faith), Imam Ghazali has outlined a generic process for self-improvement that is very modern in its approach and outlook. It was designed for the students of Sufism in their quest for achieving higher stations or levels of mysticism. This process meets the requirements of the continuous improvement corresponding to the need for the Sufis to continuously strive for the achievement of higher levels of mysticism.

This process is equally applicable in any human activity where an individual or a group wants to improve skills in a stepwise manner. In case the immediate goal is not achieved at the first try, one would reattempt until success is achieved. For instance, in the case of passing a set of graduated examinations toward a degree, one goes through a series of steps until success is achieved. In the case of sports, say, tennis, one would strive the different aspects of the game one step at a time. The only thing that is different in Ghazali improvement process from a conventional one is the spiritual stage of *Muaatiba* in which the person strives to seek divine guidance through supplication and reflection.

In general, it is possible to view the improvement process in terms of the following six stages or steps:

Mushaahida (observation, collection of facts and determining the requirements):
In this stage, one would study and articulate the problem. One would also specify the requirements and the expected outcome.

Muraaqiba (retreating to do reflection for the purposes of reviewing and planning):
Once the problem has been articulated and the requirements specified, one would sit down to design a work plan for achieving the goal.

Mushaarita (commitment of self and the resources necessary for implementing the plan):
If the work plan is considered to be doable, then the person needs to express his/her commitment for the completion of the work as well as procure the necessary resources for achieving the goal.

Mujaahida (making struggle for implementing the plan and achieving the results):
This stage is where the work is actually performed.

Muhaasiba (evaluation of the quality and extent of the achieved results):
In this important stage, the results achieved in the previous stage are evaluated in accordance with the requirements stipulated in the first stage. This evaluation can be done by the individual or by an independent authority or the teacher. If the results conform to the requirements, the target is deemed to have been achieved, and one can go back and begin working on the next problem.

If, however, the result is deficient, then one should not only reflect and do a postmortem but also seek supplication for better success next time around. After this, one can go back to Muraaqiba stage to start the work over again.

Muaatiba (seeking supplication for rewards and consequences):
This stage is mandatory for the students of Sufism on their mystic path.

Figure 29 is a graphic interpretation of Imam Ghazali's process for self-improvement. It is shown in the form of a flowchart. The Mushaahida, the Muraaqiba, and the Mushaarita stages can be regarded as the preparatory to the Mujaahida stage where actual implementation is done. This stage needs the input of resources and the infrastructure in order to produce an output. The output is then fed to the Muhaasiba stage where evaluation is done. In case of success, one notes the achievement of the target and begins work on the next problem. In case of failure, one needs to repeat the process until success is achieved.

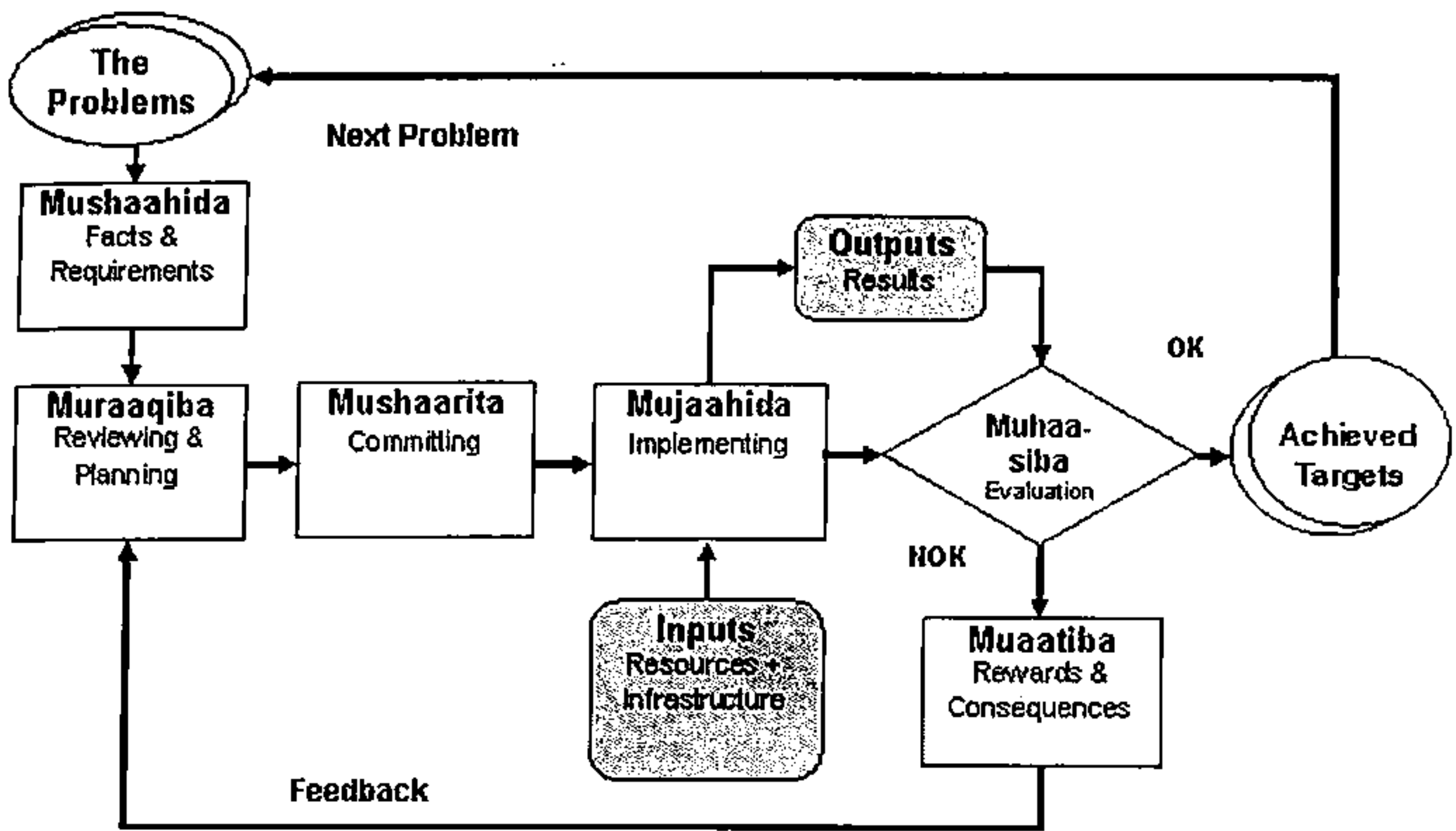


Figure 29: Ghazali's Process for Self-Improvement

Managing the Project for Improvement

Typically, project management consists of three phases: planning, implementation, and monitoring. As shown in figure 28, it involves the design and planning of the activities to be done, the provision of required resources, the actual execution plan, and the monitoring whether or not the milestones for tracking the progress are being met.

A complex and large activity of this nature needs to be split up into a number of constituent activities. There should be one overall project management plan enveloping a number of smaller and more specific project management plans. In our case, the improvement exercise for each deficiency factor needs to be done under the auspices of a specific project management plan.

The work done in this book can be of direct use in planning for improvement. On the other hand, designing the details related to the project implementation and for the monitoring phases is complex, requiring the services of numerous subject matter experts. This work cannot be covered in this book. We will therefore confine ourselves to the outlining of the framework around which the implementation and monitoring phases can be built.

Issues Related to Project Planning

In the planning activity, both the goals and the current weaknesses and strengths are considered to generate specific targets that are more concrete, such as "Compulsory education at the

elementary level must be provided by 2010 for the South Asian region” or “Potable water (riverine or distilled seawater) to be supplied to the North African region by 2015.”

A generic plan needs to deal with the following issues: why, what, how, when, who, and where (W5 and H). The questions related to these issues are listed below:

Why

What are the reasons that this project for improvement must be accomplished?

What

What needs to be improved, and what is the justification?

What needs to be done to divide the problem into smaller tasks that are easy to implement?

What are the present strengths, weaknesses or risks, opportunities, and tasks?

What are the targets that must be met in order to achieve the goals?

What are the preconditions that must be satisfied before a task can be started?

The reason why the project must be executed is self-evident. The first three questions of the “what” issue have been discussed in the preceding chapters. Answers to the last two questions involve detailed analysis of the situation as well as the agreement of experts associated with the planning phase.

The answers to the “how,” “when,” and “who” related issues are implementation dependent and need extensive study. The “how” part is especially very complex because it has to specify the methodology and the policies that must be carried out to produce the solution. It would require the combined efforts of many specialists belonging to different fields working full time to produce solutions that are viable.

How

How to accomplish the improvement? What should be the policies?

What should be the methodology and process for improvement?

What infrastructure is needed to accomplish the improvement?

What is the level of the skill set that is needed?

When

When should the project planning and implementation phases start and end?

What will be the schedule of the achievement for the targets and milestones?

When will be the resources and funds needed and their amount?

Who

Who will be giving the go-ahead to commence the project? Have they committed to support the project, politically, administratively, and financially?

Who will be doing the planning, the execution, and the monitoring?

Who will be the leader, and to whom will he be answerable?

What will be the mandate and responsibilities of the leader?

Who will be financing the execution?

Where

Which geographical location will be chosen for the execution of the project?

The project-planning phase must provide answers to all of the above questions. The output of this phase is the identification and description of the tasks that must be completed according to a given time schedule. It also includes the targets and the milestones that must be met related to these tasks and the quality of work that is expected.

Issues Related to Project Implementation

Project implementation relies on the output of the project-planning phase. It is concerned with the issues of "how," "with what," and "when." It involves scheduling and execution of tasks and the assignments of resources to get those tasks completed on time.

How

How to implement the policies proposed during the planning phase?

How to execute the detailed tasks associated with the policies?

How to specify the sequencing and dependency requirements of tasks? (The starting of some tasks may be contingent upon the completion of others.)

With What

Which resources, in terms of workforce, budget, and resources, are required to do the tasks?

Is the management structure for implementation in place?

Who will be actually doing the work?

When

What is the total time period for the completion of the project?

What are the deadlines associated with the tasks? When are the tasks supposed to start?

What are the dates associated with the milestones?

What are the planned and actual completion times?

Issue Related to Project Monitoring

Project monitoring deals with the issue of "how well." It is concerned with tracking the progress and quality of the work being done. If some activities are running late and the

output is not of the expected quality, then some resources may have to be reallocated in order to meet the timing and quality requirements.

How Well

Are the milestones and the quality requirements being met?

What resources need to be reallocated in order to meet the deadlines and quality requirements?

Will This Work?

There are certain questions that need to be answered in order to lift the Muslim societies out of the current abysmal situation. Are they convinced about the gravity of the situation? Are they motivated enough? Can various segments of Muslim society rise above the differences and the fault lines and agree to embark on a path of reformation? Can they agree upon the vision and goals that should be achieved? Can they become committed and remain steadfast after that? Can they overcome or soften up hurdles put in their way by internal and external forces? Do they have the necessary resources and the skill set to undertake the journey? Can they reach the threshold of "critical mass" in terms of improvements that would propel them to further improvements on a continual basis?

A positive answer to each of the above questions would require certain preconditions to be met if the grand project of societal improvement can reach a take-off stage.

Commitment of Will

The first precondition is that of will to undertake the arduous journey toward improvement and the commitment to that will. Historical precedents exist showing that Muslim societies have recovered and regained strength after undergoing disasters of awesome magnitudes, figures 10 to 18. It happened in the Middle East when they were able to stop and eventually reverse after AD 1187 the onslaught of the Crusades, in Spain after the fragmentation into multiple statelets around AD 1130, and after the devastation and massacres by the Mongol hordes in AD 1258.

In each instance, the process of recovery required the Muslims not only to plan for and implement steps to achieve unity, improve their organization, economy, and defense but also to assemble under the banner of the faith for solace and steadfastness.

There are examples in the recent history showing that the assertion of will and clear enunciation of objectives can work wonders. It happened during the Meiji restoration (1869-1912) in Japan when the regime resolved to enter their country in the comity of

nations in a big way. They undertook an oath with the following aims and objectives (Ref: PJ):

Deliberative assemblies shall be widely established and all matters decided by public discussion.

All classes, high and low, shall unite in vigorously carrying out the administration of affairs of state.

The common people, no less than the civil and military officials, shall each be allowed to pursue their own calling so that there may be no discontent.

Evil customs of the past shall be broken off and everything based upon the just laws of nature.

Knowledge shall be sought throughout the world so as to strengthen the foundations of imperial rule.

The single-minded approach of the Japanese society allowed them to make progress at a rapid pace. In 1905, for the first time in history, they were able to inflict a naval defeat on a Western power, Russia. By 1912, Japan had a highly educated population free of vestiges of feudalism, a rapid-growing infrastructure and industrial sector along with a powerful army and navy.

Planned and focussed approach is also instrumental in delivering marvelous results in the case of the Asian tiger countries, China and India, that have become the envy of the world.

For the commitment of will to take shape, a big debate involving all segments of the Muslim societies must take place to aggregate their concerns and aspirations and obtain their buy-in. This debate can take place only in the environment ensuring freedom of expression and thought. It is the prime responsibility of all the stakeholders, especially the political elite, to make that happen. The first choice is the establishment of a fully democratic structure as soon as possible so that creative energies of the entire population can be unleashed.

Softening of Obstacles

It is a fact that there exist many obstacles, internal and external, that would like to thwart the process of improvement from taking shape. It is in the interest of these forces that the "boat is not rocked" and status quo be maintained so that their entrenched privileges in landed property, politics, and trading monopolies are protected. Ways should be found to convince them of the long-term benefits accruing from modernization. If moral force is not enough to accomplish this, then legislative methods should be adopted in the same way that was used for the withdrawal of princely privileges in India after its independence.

Even more difficult to deal with are the hindrances posed by the Western powers, which are of the view that Muslim states are not ready yet for the democratic system. They regard that the population if given freedom of expression and thought will elect representatives whose views run counter to the economic, political, and defense interests of the West. Some Western powers have tried to sabotage the election process or have refused to recognize the democratically elected representatives of the people. Such actions have been very harmful in terms of frustrating the genuine aspirations of the people, causing bloodshed and wars, retarding their social and economic growth besides generating distrust and abhorrence between them and the West.

Global Heating

It has resulted in the "global heating" of emotional temperature that metaphorically is equivalent to the "global warming" of the atmosphere. Both these phenomena pose grave risks to the world at large. During the past decade, "global heating" has spiralled out of control with no sign of abating. Unlike the past when the media was supposed to be objective and balanced, in the current situation the media has been a major contributor. This has resulted in the policy of fighting puny fires with maddeningly furious fires. Taking the analogy of a physical system, we know that when heat is applied, its entropy increases giving rise to particle behavior that becomes more random and unpredictable. Similarly, societal frictions lead to chaos and spiraling reactions and counter-reactions which left uncontrolled can spiral into total burnout.

We are at a crossroads, and the need of the hour is to take serious steps to cool down the "global heating" as well as the "global warming. This cannot be achieved through subjugation, suffocation, sabotage, or terrorism. Muslim societies should acknowledge the primacy of the West in terms of science and technology and seek them as partners in these fields. On the other hand, the West should realize that they cannot asphyxiate these societies through renewed colonization, nor can they rule over them using the surrogate-ruler model forever. This practice is untenable since its continuity depends on the life of a single person and his coterie. A fragile arrangement like this is bound to crumble in the long run since it squelches the real will of the people.

There is a need not only to stop the violent antagonism but also to tone down the rhetoric. The popular press on both sides of the divide is purposefully stoking the fires of distrust and enmity that are contributing to the global heating. The media have managed to resurrect age-old rancor and are profiting from it. There has been an upsurge in the growth of particularly virulent columnists who are given front-page exposure. What is most surprising is that intellectuals and opinion shapers also seem

to have joined this club. Some of them have given academic and intellectual sanction to the furtherance of violence. Why all this is being done in this "enlightened" age is somewhat incomprehensible. Are there pecuniary interests involved, or is it pandering to the lower-level instincts?

Mitigation of the climate of violence may not be that easy due to the vested interests including the defense industry, the parochial media, and the hard-liners on both sides with their agenda for raw power projection. There also could be a psychological factor in all this, that of latent masochism as evidenced by the heated rhetoric, incidences of terror and counterterror, and atrocities unprecedented for the modern age. These releases of verbal and real firepower may be providing avenues for the pent-up emotional release.

The common problem faced by the Muslim societies and the West is how to climb down from their intransigent positions without loss of face. The question is, what are the incentives to do this? It is a task for the spin doctors to first realize the advantage of cooling down the phenomenon of global heating and then think of ways to make this climb down less unsavory so that an era of mutual cooperation can commence. Not less disconcerting is the phenomenon of 'local heating' due to the fissures and frictions within the Muslim countries and societies. This need to be cooled down in order to move their societies forward.

There is a big task ahead for the opinion shapers in Muslim countries to coordinate their approach in order to convince the stakeholders for embarking on the road to improvement. It is the responsibility of the intelligentsia, the media, the religious leaders, the teaching professionals, and the think tanks alike to get the ball rolling. This is the need of the hour.

Commitment to Perform

Muslim societies, if they were to embark on the pathway of improvement, will have to change the way their resources are currently being spent. Both the resource-rich and resource-challenged are blameworthy for their mismanagement. In the later, revenue collection is riddled with loopholes and leakage. The aid money and loans from external sources end up in the foreign bank accounts and real estate investment by the rulers and the elite. At the end, there is nothing to show for, and countries go deeper into the whirlpool of debt, thus mortgaging their freedom of action and be at the mercy of their lenders.

The resource-rich countries are spending their precious resources on lifestyle enhancement projects that have maximum visibility to impress their gullible populace. Projects like the uber-luxury hotels, snow-covered ski runs, the lush green horse

racing, and state-of-art formula-one car racing tracks in the hot desert outwardly mimic the style but not the substance of the West. The irony is that these projects are delivered by the Western companies on a turnkey basis with minimal contribution by the locals who are also dependent on their services including maintenance and operations. These countries are among the largest markets in the world for high-quality consumer goods and luxury cars.

These countries import sophisticated machinery for petroleum exploration, extraction, and delivery and have to rely on foreign expertise for their maintenance. Even more serious is the case with the defense equipment, where huge sums are expended to buy sophisticated aircraft and systems which these countries have no need, nor have they the capacity to operate or maintain these properly. They have to outsource not only the maintenance but also training contracts at inflated costs.

The tragedy is that all this money goes to waste because the recipients are unable to fully absorb the course work due to their laxness, their lack of background and preparedness. Even if they are able to retain some of the contents of the training material, by the time they become conversant enough to utilize it, they discover that they are back to square one as the technology has moved much further and much faster ahead.

All this points to huge and irreplaceable drain of resources that could be used productively. The rulers and elite of these countries have to deliberate on how to come out of this straitjacket and embark on the path toward improvement. This cannot be done unless there is societal consensus and agreement for "commitment to do."

Muslim societies will have to muster all their organizational and technical skills to meet these challenges. Insurmountable as the problems seem to appear, there is still hope that a series of well-placed dents can weaken the edifice of malaise of the Muslim society and propel us along the path of progress. This is doable, if there is a will.

"Allah will never change a grace which He has bestowed on a people until they change what is in their own-selves" (Quran: 8:53)

Appendix 1

Hadis Quotation

Tirmizi: Hadis attributed to Hazrat Ali (Alaihis Salaam): The Holy Prophet (PBUH) said,

Disasters will befall upon my Ummah when it is associated with the following fifteen deficiencies:

1. state funds (*Bait ul Mal*) are regarded as personal property
2. trust funds (*Amanat*) are regarded as the war booty (*Mal-e-Ghanimat*)
3. zakat is considered to be a punitive taxation
4. husbands are subservient to their wives
5. sons are disobedient to their mothers
6. a person does undue favors to his friends
7. commits cruelty toward his father
8. mosques becomes noisy places
9. the worst possible person assumes the leadership of the nation
10. a person's prestige is related to the fear of his cruelty
11. narcotics use becomes widespread
12. men are clad in silken clothes
13. use of musical instruments becomes widespread
14. female singers are easily available
15. forefathers and people of earlier times are deprecated

When people find themselves in such a predicament, they should be on the lookout for severe punishment of Allah that may appear as a "red" hurricane, as an earthquake, or in the form of disfigurement of faces just as was the case for Ashab-e-Sabat (people of Sabat).

Appendix 2

Data Tabulation and Analysis

Tabulation of Achievements, Events, and Dynasties

Table 2: Summary of Achievements, Events, and Dynasties (660-1510)

Time Period		610 660	661 710	711 760	761 810	811 860	861 910	911 960	961 1010	1011 1060	1061 1110	1111 1160	1161 1210	1211 1260	1261 1310	1311 1360	1361 1410	1411 1460	1461 1510
AREA	Sym bol																		
Philosophy and Theology	TP	18	26	28	28	36	50	47	26	34	22	30	33	24	28	26	17	9	11
Normalized	ATP	36	52	56	56	72	100	94	52	68	44	60	66	48	56	52	34	18	22
Physical Sciences	SE	0	0	3	25	22	27	24	45	28	17	10	18	12	29	18	5	18	2
Normalized	ASE	0	0	7	56	49	60	53	100	62	38	22	40	27	64	40	11	40	4.4
Mathematics	SM	0	2	0	2	7	23	21	24	25	27	14	16	9	11	23	9	7	7
Medicine	ASMA	0	0	0	0	21	92	81	96	100	88	56	64	36	44	92	36	28	28
Architecture	ASMA	0	0	0	0	1	10	12	21	16	16	16	12	30	11	67	36	31	53
Art	ASMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
History	ASMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Geography	ASMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Law	ASMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Universities Muslim lands	UML	0	0	0	0	1	0	4	4	2	2	3	3	4	5	1	1	1	0
Universities Christian lands	UCL	0	0	1	0	0	0	0	0	0	1	1	5	12	10	9	11	10	13
Madrassas		0	0	1	1	13	7	4	4	3	5	6	17	12	14	15	3	10	6
Mosques		6	7	4	3	8	4	5	3	2	4	5	14	21	11	9	15	16	11
Mausoleums		0	1	0	1	2	2	0	2	2	0	8	7	5	6	4	8	3	5

Time Period		610 660	661 710	711 760	761 810	811 860	861 910	911 960	961 1010	1011 1060	1061 1110	1111 1160	1161 1210	1211 1260	1261 1310	1311 1360	1361 1410	1411 1460	1461 1510
Palaces/ Forts		6	1	15	1	0	0	0	0	3	4	4	3	6	1	10	3	3	0
Public Works		4	6	1	0	4	3	1	2	3	2	2	25	4	11	16	0	0	22
Cities		3	1	2	3	3	2	3	2	2	2	2	0	0	1	3	2	5	0
Infras- tructure and Institutions	IN	19	16	23	9	30	18	15	16	16	17	27	66	58	48	69	31	48	44
Normalized	AIN	28	23	33	13	44	26	22	23	23	25	39	96	84	70	100	45	70	64
Victories External	EV	26	13	18	10	11	6	3	7	1	16	17	16	12	13	9	19	19	19
Normalized	AEV	100	50	69	38	42	23	12	27	4	62	65	62	46	50	35	73	73	73
External Treaties	ET	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Normalized	AET																		
Rebellions and Civil Strifes	IR	10	16	9	15	15	22	20	11	11	23	13	10	10	2	6	14	15	31
Normalized	AIR	30	48	27	45	45	67	61	33	33	70	39	30	30	6	18	42	45	94
Betrayals	BT	0	0	0	3	0	1	0	0	0	3	2	0	0	0	0	0	0	0
Normalized	ABT																		
Reprisals	RT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Normalized	ART																		
Atrocities	AT	3	4	7	5	7	9	6	0	3	2	7	5	8	3	2	0	2	2
Normalized	AAT																		
Internal Treaties	INT	0	4	2	0	0	0	2	0	0	4	1	2	4	7	8	1	3	3
Normalized	AIN																		
Colonial Trade	CLT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	12
Normalized	ACL																		
Resistance Movements	RMS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Normalized	ARMS																		

Time Period		610 660	661 710	711 760	761 810	811 860	861 910	911 960	961 1010	1011 1060	1061 1110	1111 1160	1161 1210	1211 1260	1261 1310	1311 1360	1361 1410	1411 1460	1461 1510
Concurrent Regimes WEST	WCR	0	0	1	4	5	5	5	5	17	16	7	4	6	5	4	4	4	5
Normalized	AWCR	0	0	5.9	23.5	29.4	29.4	29.4	29.4	100	94.1	41.2	23.5	25.3	29.4	23.5	23.5	23.5	29.4
Regimes Ended WEST	WRE	0	0	0	0	0	2	1	2	3	11	4	2	4	1	0	0	0	2
New Regimes WEST	WNR	0	0	1	3	1	0	2	1	4	2	2	1	1	0	0	0	1	0
Ruler Changes WEST	WRC	0	0	1	8	12	20	15	15	43	23	13	7	16	19	24	26	23	26
Normalized	AWRC	0	0	2.3	18.6	27.9	46.5	34.9	34.9	100	53.5	30.2	16.3	37.2	44.2	55.8	60.5	53.5	60.5
Concurrent Regimes EAST	ECR																		
Normalized	AECR	—																	
Regimes Ended EAST	ERE																		
New Regimes EAST	ENR																		
Ruler Changes EAST	ERC																		
Normalized	AERC																		

Table 3: Summary of Achievement, Events and Dynasties (1511-1960)

Time Period		1511 1560	1561 1610	1611 1660	1661 1710	1711 1760	1761 1810	1811 1860	1861 1910	1911 1960									
AREA	Sym bol																		
Philosophy and Theology	TP2	2	4	17	8	2	6	5	6	24									
Normalized	ATP2	4	8	34	16	4	12	10	12	48									
Exact Sciences	SE2	14	8	10	2	2	3	4	1	2									
Normalized	ASE2	31	18	22	4.4	4.4	7	9	2	4.4									
Medical Sciences	SM2	11	4	5	7	7	8	5	0	1									
Normalized	ASM2	4	16	20	28	28	12	10	0	0									
Universities Muslim Lands	UML2	1	0	0	0	0	1	0	5	6									
Universities Christian Lands	UCL2	6	8	6	4	2	9	8	10	7									
Madrasahs		4	9	3	2	6	3	4	2	0									
Mosques		15	15	17	8	1	10	7	2	0									
Mausoleums		6	7	12	1	1	0	4	0	0									
Palaces/Forts		8	11	17	2	7	2	6	0	0									
Public Works		16	17	12	0	0	2	3	0	0									
Cities		3	2	0	0	0	0	0	0	0									
Infrastructure and Institutions	IN2	61	61	61	13	15	17	24	4	0									
Normalized	AIN2	88	88	88	19	22	25	35	6	0									

Time Period		1511 1560	1561 1610	1611 1660	1661 1710	1711 1760	1761 1810	1811 1860	1861 1910	1911 1960								
External Treaties	ET	5	4	1	6	5	7	12	5	20								
Normalized	AET																	
Rebellions and Civil Strifes	IR	33	14	19	5	24	12	16	9	26								
Normalized	AIR	100	42	58	15	73	36	48	27	79								
Repressions	RP	4	0	1	2	0	2	2	4	4								
Normalized	ARP																	
Arrests	AT	2	3	5	0	4	9	10	4	6								
Normalized	AAT																	
Internal Treaties	INT	2	2	0	0	0	4	6	1	4								
Normalized	AINT																	
Colonial Trade	CLT	17	14	27	4	4	8	10	18	29								
Normalized	ACLT																	
Resistance Movements	RMS	2	0	1	1	0	5	14	11	56								
Normalized	ARMS	4	0	2	2	0	9	25	20	100								
Concurrent Regimes GEN	CCR2	14	8	7	8	11	13	11	10	10								
Normalized	ACCR2	47	27	23	27	37	43	37	33	33								
Regimes Ended GEN	CRE2	9	1	0	2	1	5	1	3	8								
New Regimes GEN	CNR2	0	1	0	1	6	4	2	0	1								
Ruler Changes GEN	CRC2	29	31	36	28	36	53	40	48	14								
Normalized	ACRC2	42	34	40	31	40	57	44	53	16								
Concurrent Regimes WEST	WCR2	5	3	3	3	5	5	7	5	4								
Normalized	AWCR2																	
Regimes Ended WEST	WRE2	2	1	1	0	0	0	2	2	3								

Time Period		1511 1560	1561 1610	1611 1660	1661 1710	1711 1760	1761 1810	1811 1860	1861 1910	1911 1960									
New Regimes WEST	WNR2	0	0	1	1	2	0	2	0	3									
Ruler Changes WEST	WRC2	20	8	8	3	8	7	14	8	12									
Normalized	AWRC2																		
Concurrent Regimes EAST	ECR	9	6	3	4	9	9	8	5	4									
Normalized	AECR																		
Regimes Ended EAST	ERE	3	3	0	1	0	1	3	1	2									
New Regimes EAST	ENR	3	0	0	0	5	0	0	0	4									
Ruler Changes EAST	ERC	47	26	9	9	29	29	30	17	11									
Normalized	AERC																		

Tabulation of Relationships (Correlations)

Statistical Relationships

Table 4: Correlations between Indicators

	Theology and Philosophy	All Sciences	All Arts	Institutions and Universities	Infrastructure	Victories External	Defeats External	Internal Rebellions	Concurrent Regimes (Fragmentation)	Ruler Changes (Instability)
Theology and Philosophy		0.2348	-0.0775	0.2322	-0.2477	-0.5564	-0.2184	-0.1681	-0.2152	-0.3572
All Sciences			0.3992	0.5416	0.0810	-0.5266	0.0965	0.0049	0.4450	0.3194
All Arts				0.4693	0.6998	-0.0893	0.2580	-0.1413	0.7571	0.7760
Institutions and Universities					0.4522	-0.2324	0.2026	-0.2746	0.5574	0.4622
Infrastructure						0.1564	0.2687	-0.1673	0.6143	0.7611
Victories External							0.2633	-0.1012	-0.1072	-0.0690
Defeats External								0.2457	0.3663	0.2765
Internal Rebellions									0.0854	0.1449
Concurrent Regimes (Fragmentation)										0.9272

Computation of Society Progress Number (SPN)

Algorithm for SPN:

$$\text{SPN} = W_1 * \text{ATP} + W_2 * \text{ASE} + W_3 * \text{ASM} + W_4 * \text{AAL} + W_5 * \text{AIN} + W_6 * \text{AEV} \\ - (W_7 * \text{AED} + W_8 * \text{AIR} + W_9 * \text{ITCR} + W_{10} * \text{ITRC})$$

Table of Weights (SPN)

Table 5: Weights used in the computation of the Society Progress Number

Area		Viewpoint: Arts, Sciences, and Institutions	Viewpoint: Arts, Sciences, Institutions, and Military
Phil and Theology	W1	5	5
Exact Sciences	W2	5	5
Medical Sciences	W3	5	5
Arts and Literature	W4	5	5
Infrastructure and Institutions	W5	5	5
Victories External	W6	1	5
Defeats External	W7	1	5
Rebellions	W8	1	5
No. of Regimes	W9	1	1
Ruler Turnover	W10	1	1

Appendix 3

Tabulation of Achievements

General Notes

The tabulation of achievements and events covers the period 631-1960. To facilitate data analysis and plotting, the tabulation is organized in blocks. The first block, covering the Khilafat-i-Rashida period (631-660), is unique and is of thirty-year duration. All others, starting from 661, the commencement of the Umayyad period, are of fifty-year duration.

Dates: The year of death for a person is available more often than his year of birth. For the sake of uniformity, the dates given below refer to the former. The suffix “~” indicates that year is approximate.

To cater to the fact that not all achievements are of equal value, the achievements are assigned a weight, indicating its degree of importance on the Lickert scale of 1 to 5. These weights are specified within parentheses after each achievement, e.g., (3) indicates a weight of 3. If an achievement is not assigned any weight, by default it is assumed to be 1. The assignment of these weights is based on author's interpretation. It may be changed by subject-matter experts.

These weights are not the same as those used in the computation of the Society Progress Number (SPN).

The quantitative measure of the net achievements within a time-period block is the cumulative sum of the weights of the achievements within the block. Such measures have been used in the plotting of profiles of achievements as shown in figures 3 to 18.

A key feature of this study is the data compilation which draws on a large number of sources. As a result, more than two thousand data points have been aggregated and collated in the appendices. A large collection like this affords a broad-spectrum view and a better understanding of achievements and events of Muslim societies and states. Due to space constraints, data is given in an abbreviated form only.

Owing to the multiplicity of achievements, unless it is absolutely necessary, it may not be feasible to give references for each item. General references are listed below:

Appendix 3a: Theology and Philosophy

(Refs: AGI, AGT, BF, CW, EG, HK, HPM, IK, IY, JZH, MR, SS, STS, VM, WMH, Wikipedia and WJ)

Appendix 3b and 3c: Exact and Medical Sciences

(Refs: EG, HJ, HPM, MC, MR, NSH1, and Wikipedia)

Appendix 3d: Arts and Literature

(Refs: HPM, EG, NSH1, HJ, HM, MR and Wikipedia)

Appendix 3e: Architecture and Institutions

(Refs: HTM, YS, Wikipedia)

a. Advances in Knowledge: Religious Sciences and Philosophy

The following table summarizes in chronological order the achievements of scholars in Muslim lands in the field of religious sciences (including theology, *athulugia* in Arabic [Ref: FM]) and philosophy.

Time Line (fifty-year interval)	Achievements and New Ideas																																																
Summary	<p style="text-align: center;">Religious Sciences, Philosophy & Sufism, 611-2000, Smoothed</p> <table border="1"> <caption>Approximate data from the graph</caption> <thead> <tr> <th>Year</th> <th>Religious Sciences</th> <th>Sufism</th> </tr> </thead> <tbody> <tr><td>600</td><td>18</td><td>2</td></tr> <tr><td>700</td><td>28</td><td>5</td></tr> <tr><td>800</td><td>30</td><td>10</td></tr> <tr><td>900</td><td>52</td><td>8</td></tr> <tr><td>1000</td><td>28</td><td>5</td></tr> <tr><td>1100</td><td>34</td><td>8</td></tr> <tr><td>1200</td><td>25</td><td>14</td></tr> <tr><td>1300</td><td>29</td><td>10</td></tr> <tr><td>1400</td><td>10</td><td>5</td></tr> <tr><td>1500</td><td>12</td><td>5</td></tr> <tr><td>1600</td><td>18</td><td>5</td></tr> <tr><td>1700</td><td>5</td><td>5</td></tr> <tr><td>1800</td><td>7</td><td>5</td></tr> <tr><td>1900</td><td>5</td><td>5</td></tr> <tr><td>2000</td><td>24</td><td>5</td></tr> </tbody> </table>	Year	Religious Sciences	Sufism	600	18	2	700	28	5	800	30	10	900	52	8	1000	28	5	1100	34	8	1200	25	14	1300	29	10	1400	10	5	1500	12	5	1600	18	5	1700	5	5	1800	7	5	1900	5	5	2000	24	5
Year	Religious Sciences	Sufism																																															
600	18	2																																															
700	28	5																																															
800	30	10																																															
900	52	8																																															
1000	28	5																																															
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1800	7	5																																															
1900	5	5																																															
2000	24	5																																															
	Details																																																
631-660	<p>632~: Origin of Fatwas: During governance and practice of faith, many problems arose whose solutions were not explicitly evident in the Quran or in the Sunnah. Faced with such situations, the companions after resorting to consensus (<i>Ijma</i>) and analogical interpretation (<i>Qiyas</i>) issued considered opinion, or <i>fatwa</i>. A fatwa consists of the problem statement, its context, pertinent references, and case histories followed by a detailed statement (opinion) and its justification. Early personalities who issued fatwas included Hazrat Omar, Hazrat Ali, Hazrat Ayesha, Hazrat Abdullah ibn Masud, Hazrat Zaid bin Thabit, Hazrat Abdullah ibn Abbas, Hazrat Abdullah ibn Omar, and others (5).</p> <p>These first fatwas were referred to by others and included in the ever-increasing repository.</p> <p>632~: Rationalism: Ashab al-Saf/Suf (People of the Bench/Wool) began to explore the application of rational thoughts in order to reaffirm their beliefs in religious truths. Pioneers of this approach included Hazrat Ali, Hazrat Maaz ibn Jabal, Hazrat Abdullah ibn Masud, and Hazrat Ayesha (Ref: SS) (3).</p> <p>636~: Hadis: The process for collection and quotation of Hadis by the companions begins.</p> <p>636~: Tafsir: Exegesis, interpretation of Quranic verses and its evolution into a formal discipline.</p>																																																

	<p>650: Standardized version of the Quran compiled under the supervision of Hazrat Zaid bin Thabit, during Hazrat Osman's caliphate (5).</p> <p>650~: Theology: Salman Farsi, companion of the Prophet, was an early teacher of Islam. He died during Caliph Osman's reign. He is buried at Ctesiphon. He supported the candidacy of Hazrat Ali to the caliphate and on the occasion of the election of Caliph Abu Bakr is reputed to have said, "Kardid o Nakardid" (They did it, yet they didn't, meaning they have selected a successor, but did not recognize the true one) (2).</p> <p>658: Kharajis: Emergence of the puritanical movement after the battle of Siffin on grounds that both Hazrat Ali and Emir Muawiya were seen to be of moving away from the commands of Allah. They regarded a person who commits a major sin as an infidel and as such liable to the severest punishment (2).</p>
661-710	<p>661: Theology: Rhetoric: <i>Nahj ul Balaghat</i>, speeches, sayings, and teachings of Hazrat Ali (AS) (5).</p> <p>661~: Systematic Theology (<i>Kalam</i>): Start of dialectical (argumentative) activities and study of theology in a systematic manner (called <i>Kalam</i>) started in Basra and Damascus. This was also motivated because of the authoritarianism and extreme cruelty perpetrated by the Umayyad rulers (who said that their actions, howsoever brutal, had been predestined by God, and therefore, they [the rulers] should not be held responsible for their actions) (5).</p> <p>661~: Jabarites: Its pioneer was Jahm ibn Safwan (Ref: FM). They believed in the notion of strict predestination and repudiated the concept of "created power" or human ability to carry out their own designs in this world. They regarded this concept as untenable and urged people to recourse to argumentation and the use of rational logic.</p> <p>700~: Qadirites: Supporters of free will of human beings. They believed that the human beings possessed full Qadar (power) and responsibility over their actions, good or bad. This type of reasoning was the precursor of the Mutazila movement. Pioneers were Ghailan Damishqi and Mabad al-Juhani. Both were executed by the Umayyads.</p> <p>700~: Murjaites (Hopefuls): They can be regarded as noninterventionists (<i>laissez-faire</i>). Unlike Kharajis, they opined that decision regarding the culpability of the people who committed major sins should be left solely in the hands of Allah. They hoped that Allah in His mercy might also forgive them for their transgressions.</p> <p>680: Shiaism: Real emergence of Shiaism after the Shahada of Hazrat Imam Hussain. They believed in the rights of the progeny of the Prophet (PBUH) over all others, the institution of Imamate and in their innocence in matters of faith. Imams could decipher the hidden meaning in Quranic text. They permitted <i>Taqqaiyah</i> (dissimulation, not expressing the truth) during adverse times (5).</p> <p>696: Theology: Jacobites: Severus Sebokht</p>

699: **Mutazila:** Started as Qadirites (did not believe in predestination). They gave structure to Islamic theology by viewing it in the light of the precepts of the Greek philosophy. This philosophy was called Kalam. It was formulated in the ninth century by Abul Hussain al-Khaiyyat (Ref: FM) (5).

Early thinkers included Mabad al-Juhani of Damascus (d. 699) (who participated in a debate on predestination with Sawsan, a Christian), Wasil bin Ata of Basra (executed for heresy by Marwan II, the last Umayyad in 748), Hassan Basri (d. 728), Ghailan al-Damishqi (d. 743), and Abul Hudhayl (d. 841).

Five Basic Principles of Mutazila (Ref: SS):

Divine unity: Steadfast belief in the absolute unity of Allah

Implications:

Allah's attributes are not *in* His essence but *are* His essence.

The word of Allah, i.e., the Quran, is an entity that is "created" and is "contingent." This means that the Quran is specifically adapted to the time and place of its delivery to the Prophet (PBUH).

Other Muslims including Imam Hanbal believed that the word (being an absolute truth) has existed from all eternity and not created on the spot. This is termed as being "uncreated." In argumentation it is said that Allah created everything through His word "Kunn," Be (a word in the Quran); therefore, "Be" itself could not have been created. otherwise, the created word could have become the direct creator, an untenable situation in conflict with the doctrine of Divine Unity.

Vision of Allah: Allah cannot be seen with "physical" eyes in this or the next world.

Anthropomorphic (humanlike) expressions of Allah in the Quran (e.g., chair and hand) must not be interpreted (*Taawil*) literally but only metaphorically. They did not believe in the Prophet's physical ascension to heavens or in the concept of punishment meted out in the grave.

Divine justice: Allah is always just. Allah must necessarily do justice, irrespective of His will. This point was disputed by Ashaari who maintained a sinner can escape punishment if Allah so wills. They rejected the concept of intercession (*Shafaat*) by anybody.

Al-Kaabi (d. 931) argued that when He wills an object to come into being, it implies its automatic creation. When He wills certain actions by human beings, it means that He has commanded them.

Promise of reward and punishment: This is similar to the above. Allah must carry out the promise of due reward and punishment and people will be consigned to the paradise or hell and live there forever after.

Abul al-Hudhayl of Basra (d. 841) proposed the notion of Tawallud or causal nexus in which the individual is the agent and the action the effect. People were responsible for only those whose modality was known, e.g., collision of objects to create a sound but not those actions whose modality is not known, e.g., pleasure, pain, knowledge, and ignorance (Ref: FM).

Bishr ibn al-Mutamir of Baghdad (d. 825) rejected this distinction. He argued that individuals as authors, irrespective of the modality (context or circumstances) of their actions, were fully responsible for them.

Ibrahim ibn Nazzam (d. 845), skilled theologian, who proposed a **theory of nature**. According to him, actions were simply different forms of motion. Every motion was caused by the "necessity of nature." Allah while creating objects imparted them "latent" powers that could be "manifested" whenever needed. This theory tries to explain the double notion of free will (of human agents) and Allah's prerogative as the ultimate agent of causation.

Muammar ibn Abbad (d. 834) refined the theory of nature by saying that Allah is the cause of bodies only. The accidents are products of bodies, naturally as in the case of fire that caused burning or in the case of human beings who as possessors of "free will" and knowledge are the authors of their deeds, whether good or bad.

Existence of a state between belief and Kufr (*Muntazilah*): Unlike Kharajis, the Mutazila believed that the committer of a major sin is neither a Momin nor a Kafir but somewhere in between, i.e., a *Fasiq* (repudiator).

Promotion of good deeds and prohibition of bad: This is obligatory on every Muslim. It is *Fard-i-Ain* (incumbent, on everybody) and not *Fard-i-Kifayah* (it is sufficient if someone in the group does it on behalf of the local community).

Other scholars included

933: Abu Hashim, son of the noted Mutazila scholar al-Jubbai

	<p>1024: Abu Rashid Neshapuri 1025: Abdul Jabbar Hamadani, author of an encyclopedia on Mutazila opinions</p> <p>704: Scholarly Sponsorship: Khalid bin Yazid, an Umayyad prince, translated Hellenic works. 708: Theology: Nestorian scholar Jacob of Edessa (b. 640 in Antioch) worked on the Old Testament.</p>
711-760	<p>711~: Hadis and <i>Hikayat Sahaba</i> (Sayings of the Companions): The process for their compilation started around this time. These sayings helped in the formulation of fatwas during the later times (3).</p> <p>720: Scholars Committee: Formed during Omar II's caliphate to compile and produce religion-related documentation. Experts included Urwa ibn Zubair, Kharaja ibn Zaid, and others (3).</p> <p>722: Tafsir (Exegesis): Mujahid ibn Jabr of Mecca. 723: Tafsir: Al-Dhahhak ibn Muzahim of Khorasan.</p> <p>728: Mysticism: Al-Hassan Abu Said al-Basri (b. 642) was the son of Zaid bin Sabit. He was a pioneer mystic, a Sufi, and a leading proponent of the Qadirites sect and the Mutazila movement. He led the protest against luxurious lifestyle and worldliness of the Umayyads. He narrated one thousand four hundred Hadis (3).</p> <p>731: Shiaism, Zaidis: "Fiver" Shias considered Hazrat Zayd bin Zain ul Abidin as the fifth imam instead of Imam Baqar, brother of Imam Zain ul Abidin.</p> <p>732~: Tafsir (Exegesis): Contributions by Mujahid ibn Habr (pupil of Hazrat Ayesha, Saad, Ibn Abbas, and Abu Huraira), Akramah (pupil of Ibn Abbas), Urwa bin Zubair, Ulqamah bin Qais, Hammad ibn Suleiman, Hasan Basri, and many more Taibeen (people acquainted with at least one of the companions of the Prophet) (5).</p> <p>732: Biography as a Source of Hadis: Ibn Ishaq assembles a biography of the Prophet. This work was completed by Ibn Hisham (d. 767) (3).</p> <p>732: Fiqh: Imam Abu Hanifah (Nauman ibn Thabit) (b. 704 in Kufa) pioneered the discipline of Fiqh (Sharia law). His teachers were Ata bin Abi Rabah and Hammad ibn Suleiman (pupil of Ibrahim Nakhee, pupil of Ulqamah who was the pupil of Abdullah ibn Masud, an eminent companion of the Prophet). He set up strict guidelines and a process for authentication of Hadis. He established a committee of one hundred forty scholars who over a period of twenty-two years produced a compendium of Fiqh containing eighty-three thousand items of which forty-five thousand related to issues of Muamalaat and the rest to Ibadaat (Ref: WMH). Imam Hanifah was arrested in 747 by Caliph Marwan II for not offering support to the Umayyads publicly. During the Abbasids' rule, he was summoned by Caliph Mansur when he protested against the execution of Ibn Abdullah and his son Ibrahim. On his refusal to accept the office of Qazi, he was sent to jail and was tortured. He expired in 776 (5).</p>

	<p>743: Philosophy: Mutazila: Ghailan al-Damishqi, author of <i>Amal bil Niyat</i> and <i>Al Qadr wal Qadr</i>.</p> <p>745: Jabarites (Determinists): Jahm ibn Safwan believed in strict predestination. They repudiated created power of human ability to carry out their free will. Believed that one cannot attribute anthropomorphic (humanlike) (<i>Tashbih</i>) qualities to Allah. They held that paradise and hell will perish at the end of time and nothing will remain except Allah.</p> <p>Ashaari (the Determinists) propounded that He is under no obligation whatsoever as regards the acceptance of good deeds). What He commands is by definition "right," and what He prohibits is "wrong." Everything is subservient to Allah's will, and nobody can question that. Nothing happens without Allah's direct intervention, and He has the knowledge of the "particulars." In other words, Allah can "micromanage" everything, if He so wills. They treaded a fine line in refuting both the extreme conservatism of Imam Malik and Imam Ahmad bin Hanbal and the unbridled rationalism of Mutazila. The initiator of the Ashaari movement, Abul Hasan al-Ashaari (d. 935) proposed a reasonable median course that did not exclude the spirit of rational inquiry.</p> <p>759: Philosophy, Medicine: Abdullah ibn Muqaffa and his son Mohammad were translators of Aristotle's <i>Categories</i>, <i>Hermeneutica</i>, and <i>Analytica Priora</i>. Ibn Muqaffa who was influenced by Zoroastrianism and Manichaeism was declared a Zindiq (heretic, irreligious, freethinker) and executed (2).</p> <p>8th Century: Fiqh: Ata bin Abi Rabah was one of the teachers of Imam Abu Hanifah.</p> <p>8th Century: Fiqh: Hammad ibn Suleiman (a pupil of Ibrahim Nakhee p/o Ulqamah p/o Abdullah ibn Masud) was a teacher of Imam Abu Hanifah.</p>
761-810	<p>765: Shiaism, Ismailis: Sevener Shias considered Ismail as the seventh imam as against Imam Musa Kazim. Later Ismailis also came to be known as the Fatimids.</p> <p>765: Fiqh: Jaafari: Imam Jaafer al-Sadiq (d. 765) was the sixth imam in the line that started from Hazrat Ali (RA). He was also noted for his work in medicine and astronomy (Ref: HK) (5).</p> <p>767: Biography: Ibn Hisham completed the biography of the Prophet started by Ibn Ishaq (d. 631) (3).</p> <p>776: Sufism: Ibrahim bin Adham, the prince of Balkh, gave up his kingdom in favor of knowledge. He died fighting against the Byzantines.</p> <p>778: Sufism: Sufyan Suri of Kufa founded a school of jurisprudence. He was a contemporary of Imam Jaafer Sadiq and Imam Abu Hanifah. He was also persecuted by Abbasid caliph Mansur for not accepting public office. He was one of the "Eight Ascetics," who included Aamir ibn Abd al-Qais, Abu Muslim al-Khawlani, Uways al-Qarani, al-Rabi ibn Khuthaym, al-Aswad ibn Yazid, Masruq ibn al-Ajda, and Hasan al-Basri (3).</p>

	<p>774: Theology: Nestorian scholar Georgius was regarded as the bishop of the Arabs.</p> <p>783: Philosophy: Mutazila Extremist: Bashar ibn Burd was declared a Zindiq and executed.</p> <p>786: Ahle Hadis and Ahle Sunnah: Orthodox Muslims, in order to distinguish themselves vis-à-vis the Shias, the Kharajis, and the Mutazila, began to call themselves people of the tradition, or people who follow the Prophet's (PBUH) practices (5).</p> <p>791: Fiqh: Laith bin Saad: Basra</p> <p>791: Fiqh: Abdul Rahman bin Omar Damishqi: Syria</p> <p>795: Fiqh: Malaki: Imam Malik bin Anas (715-795), author of <i>Al Muwatta</i> (The Approved). He was punished with flogging when he protested against being forced to pledge allegiance to Caliph Mansur. Later, Caliph Harun al-Rashid asked Imam Malik to visit him when he was performing the hajj. The imam refused, and instead he invited the new caliph to his class, which he did (3).</p> <p>798: Law: Abu Yusuf Yaqub, a pupil of Imam Abu Hanifah, wrote a handbook on the law relating to land tax for Caliph Harun Rashid.</p> <p>797: Sufism: Abdullah al-Mubarak of Merv collected Hadis of the Prophet relating to <i>Zuhd</i> (self-denial).</p> <p>805: Sufism: Female Sufi Rabia al-Adawiyya wrote about divine love and ecstasy.</p> <p>810: Sufism: Shaiq of Balkh was the first Sufi to define <i>Tawwakul</i> (trust and reliance on Allah) as a <i>Hal</i> (mystical state).</p>
811-860	<p>811: Tafsir (Exegesis): Sufyan ibn Uyayna of Mecca.</p> <p>815: Philosophy: Yahya ibn Bitraq: Translator of Plato's <i>Timaeus</i>, Aristotle's <i>De Anima</i>, and the <i>Secret of Secrets</i> (2).</p> <p>816: Sufism: Maruf al-Karkhi.</p> <p>820: Fiqh: Shaafii: Abu Abdullah ibn Idris Imam al-Shaafii (b. 767) belonged to the Quraish tribe. He was the founder of the Shaafii Fiqh (5).</p> <p>822: Tafsir: Al-Farra of Kufa.</p> <p>825: Tafsir: Abu Ubayd of Basra.</p> <p>825: Philosophy: Bishr ibn al-Mutamir: A Mutazila scholar who argued that individuals as authors, irrespective of the modality of their actions, were fully responsible for the consequences.</p> <p>826: Philosophy: Christian scholar Theodore Abu Qurrah documented a debate with a Muslim on the topic of "predestination."</p> <p>827: Philosophy: Mutazila: At the instigation of Mutazila scholars, notably Bishr al-Marisi and Ahmad ibn Abi Daud, the <i>Mihnah</i> (inquisition) was started by Abbasid al-Mamun on the issue of "createdness" of the Quran (Allah's word). This practice continued under Caliphs al-Mutasim and al-Wathiq for a total period of twenty years. It led to the imprisonment and exile of popular scholars like Imam</p>

Ahmad bin Hanbal. Caliph al-Mutawwakil (al-Wathiq's brother) stopped this abominable practice in 847. This inquisition could not be undertaken without the approval, abetment, and acquiescence of the Mutazila scholars such as Ahmed ibn Abi Duad. Resort to use of brute force and cruelty in support of dialectic argumentation was inadmissible on two counts (3):

It ran counter to the Quranic command of "There is no compulsion in matters of religion."

It proved that the Mutazila scholars who while professing to be "rationalists" of the first order had reached a dead end and after running out of rational arguments to support their viewpoint resorted to use force and compulsion. This intolerance may also have cultural underpinnings where parties do not want to or know how to deal with honest differences of opinion.

This inquisition caused revulsion in many Muslims. It provided an impetus for the start of the Ashaari movement in protest against the excesses of the Mutazila.

Note: There are four types of books that are directly mentioned in or alluded to in the Quran.

Loh i Mahfuz: This contains the Quran (and other revealed books) (Quran 85:22).

Illiyin: Record of good deeds done by the people (Quran 83:18).

Sijjin: Record of bad deeds done by the people (Quran 83:8).

Words of Allah: Description of the universe (Quran:18:109 and 31:27).

834: Philosophy: Mutazila: Muammar ibn Abbad refined the theory of nature by saying that Allah is the cause of only the bodies.

835: Philosophy: Abd al-Masih ibn Naimah, the translator of *Kitab al Rububiyah* (Book of Divinity).

837: Sufism: Harith bin Asad al-Muhasibi, author of *Riaya al Haquq Allah* (Observance of God's Rights). His selective interpretation of Hadis invited censure by Imam Ahmad bin Hanbal.

841: Philosophy: Mutazila: Abul al-Hudhayl of Basra refined the notion of Tawallud or causal nexus in which the individual is the agent and the action is the effect. People were responsible for only those whose modality was known, e.g., collision of objects to create a sound but not those actions whose modality is not known, e.g., pleasure, pain, knowledge, and ignorance.

845: Philosophy: Mutazila: Ibrahim ibn Nazzam proposed the theory of nature. According to him, actions were simply different forms of motion.

	<p>846: Philosophy: Mutazila: Ahmad bin Hait was executed as a Zindiq, heretic. He ascribed divinity to Jesus and believed in the existence of two lords: Allah the uncreated and Jesus the created.</p> <p>854: Fiqh: Abu Saul of Baghdad.</p> <p>855: Fiqh: Hanbali, after Imam Ahmad bin Hanbal (b. 780 in Merv, Khorasan), the founder of the Hanbali school of jurisprudence. He wrote the colossal collection of Hadis, the <i>Masnad</i>. He was persecuted and flogged during the time of Caliph al-Mutasim and al-Wathiq for not accepting Mihnah, the notion that God created the Quran as a distinct physical entity (4).</p> <p>857: Sufism Theology: Al-Muhasibi was a seminal figure. He promoted two pillars for Sufism: <i>Muhasibah</i> (self-examination) and <i>Sabr</i> (forbearance) even to the extent of willingness to die (2).</p> <p>857: Philosophy, Medicine: Yuhanna ibn Maswayh was a translator at Darul Hikmah, Baghdad.</p> <p>860: Theology: Shia: Ismail, son of Imam Jaafer al-Sadiq, propounded the concept of hidden truth of sacred texts (<i>Batin</i>) which could only be uncovered through interpretation by the "infallible" imam of the time (4).</p> <p>9th Century: Philosophy: Abul Abbas al-Iranshahri was conversant with Indian philosophy.</p>
861-910	<p>861: Sufism: Dhul Nun al-Masri was a promoter of Gnosis (unity with God) and was persecuted by the Abbasid Mutazila caliph al-Mutawwakil.</p> <p>866: Philosophy: Yaqub al-Kindi's (of central Arabia) ideas could be associated with those of the rationalists. His works include <i>On First Philosophy</i> (Mathematics), exhortation to study philosophy, author of 242 works (al-Nadim d. 995). Al-Kindi proposed a proof for the existence of God. He developed a theory of soul and said that faith and reason were reconcilable with each other (3).</p> <p>868: Theology: Shia: Mohammad ibn Nusayr, the founder of the Nusayriya school, the precursor of modern-day Alawi sect of Syria.</p> <p>870: Sufism: Al-Saqati worked on the issue of God's transcendence.</p> <p>870: Hadis: Sahih Bukhari: Ibn Ismail al-Bukhari (b. 810) produced the monumental and seminal work of researching and compiling 7,275 authentic Hadis. His works include <i>Jami al-Sahih</i> and <i>Adab al-Mufrad</i> relating to ethics. At Neshapur he met Muslim al-Hajjaj, who later authored the famous Hadis book Sahih Muslim (5).</p> <p>873: Philosophy, Medicine, Etc.: Hunayn ibn Ishaq, his son Ishaq, and his nephew Hubaysh were foremost translators at Darul Hikmah, Baghdad. His translations of Hellenic philosophic works included those by Plato, Aristotle, Autolycus, Menelaus, Apollonius, Alexander of Aphrodisias, and Artemidorus. He also wrote about one hundred works of his own (Ref: HPM) (4).</p> <p>873: Sufism: Abu Hafs al-Haddad of Neshapur regarded good manners to be the hallmark of Sufism (as quoted by Syed Ali Hajwairi of Lahore).</p>

	<p>874: Sufism: Abu Yazid al-Bastami is the promoter of Ittehad (union with God).</p> <p>874: Theology: Shia: Imam Hasan al-Askari (3).</p> <p>875: Hadis: Sahih Muslim: A collection of nine thousand two hundred Hadis compiled by Hussain Muslim al-Hajjaj (4).</p> <p>884: Sufism: Hamdun al-Qassar was the founder of the heterodox Malamati school who courted "blame" as a proof of their sincerity.</p> <p>886: Hadis: Sunan ibn Maja: Abu Abdullah Yazid ibn Maja (b. 824 in Qazvin) compiled the famous Sunan ibn Maja containing 4,341 Hadis of which 1,339 are unique to him (3).</p> <p>888: Hadis: Sunan Abu Dawood: Abu Dawood al-Sijistani (b. 817 in Sistan) compiled the collection containing four thousand eight hundred Hadis as authentic out of a collection of about fifty thousand (3).</p> <p>889: Theology: Ibn Qutayba, a philologist and Sunni author, born in Kufa of Persian descent, wrote Uyun al-Akhbar, a series of ten books dealing with war, nobility, science, character, eloquence, etc. (2).</p> <p>894: Sufism: Ibn Abi al-Duniya was a Sufi and a scholar of Hadis.</p> <p>896: Sufism: Sahl bin Abdullah al-Tustari wrote the first Sufi commentary on the Quran.</p> <p>898: Sufism: Abdullah al-Tirmizi elaborated on mystic psychology that influenced Imam Ghazali.</p> <p>899: Sufism: Abu Said Kharraz of Baghdad is known as the tongue of Sufism who created the notion of Fana (passing away) and Baqa (continuance and survival).</p> <p>899: Philosophy: Tayyib al-Sarakhsi was a pupil of al-Kindi and a friend of Caliph al-Mutadid. He took liberties in the use of logic to the point of heresy, calling prophets of being charlatans. Declared a Zindiq, he was executed.</p> <p>900: Hadis: Mohammad al-Tirmidhi, author of Sunan Tirmidhi. He established rules for the chain of authority (<i>Isnads</i>) (3).</p> <p>905: Fiqh: Abu Suleiman Dawood Zahiri was a scholar of Fiqh.</p> <p>908: Sufism: Abul Hussain al-Nuri of Baghdad was an ascetic and a contemporary of Junaid.</p> <p>909: Sufism: Al-Makki was a teacher of al-Hallaj.</p> <p>910: Sufism: The noted mystic Junaid Baghdadi, author of <i>Rasail</i> (epistles) in which he elucidated the dogma of <i>Tawhid</i> (divine unity) (2).</p> <p>910: Philosophy: Abu Osman Damishqi.</p> <p>910: Philosophy: Abu Bashr Matta was a teacher of al-Razi.</p> <p>910: Philosophy: Yuhanna ibn Haylan, a teacher of al-Razi in Baghdad.</p> <p>9th Century: Sufism: Abu Ali al-Sindi of India was a teacher of al-Bastami.</p>
911-960	<p>911: Philosophy: Mutazila extremist scholar Abu Isa ibn Warraq, a teacher of Ibn Rawandi, was declared a Zindiq and executed. He also repudiated Judaism and Christian sects of Jacobites, Nestorians, and Melchites, saying that these did not conform to the rules of Aristotelian logic.</p>

911: Philosophy: Mutazila Extremist, Zindiq: Ibn Rawandi: Argued prophethood to be superfluous. He believed in the literary meaning of divinity and regarded the "miracle-ness" of the Quran to be untenable (he explained the reason for the excellence of the Quran as follows: "Since the Quraish should excel as the most articulate tribe of the Arabs and the Prophet [PBUH] [belonging to that tribe] should surpass all others in eloquence").

911: Sufism: Abul Qasim al-Junaid was an eminent Sufi.

912: Philosophy: Physics: Qusta ibn Luqa was a philosopher and a physicist.

915: Theology: Shaafii: Al-Jubbai.

915: Hadis: Sunan Nisai: Compiled by al-Nisain (3).

918: Hadis: Abul Qasim Sulaiman al-Tabarani (b. 821) was a narrator of many Hadis. He wrote a twenty-five-volume compendium *Al Mujam al Kabeer* (The Large Collection) spread over seven thousand eight hundred pages (3).

919: Tafsir: Shia: Ali al-Qommi.

922: Sufism: Ibn **Mansur al-Hallaj**: A Persian who propounded Ittehad, unitary mysticism with Allah, "I and the Thou" was declared a Zindiq and put in jail for nine years by the vizier Hamid of Abbasid al-Muqtadir. He was lashed, mutilated, crucified, decapitated, incinerated, and his ashes scattered over the Tigris river (Ref: FM) (2).

922: Fiqh: History: Abi Jaafer ibn Jarir **al-Tabari** (b. 823 in Amol, Persia) was the author of voluminous Tafsir of the Quran *Al Mussama Jami al Bayan fil Tawil*. He was an eminent follower of Imam Shaafii's school (4).

931: Theology: Mutazila: Abul Qasim al-Balkhi.

931: Philosophy: Mutazila mystic Ibn Masarra al-Jabali of Cordoba, Spain.

932: Philosophy: Debate between Abu Bishr Matta, a logician, and Abu Said al-Sirai, a grammarian, on whether there was a need for Muslims to study Aristotelian logic.

933: Philosophy: Abu Hashmi was the son of the noted Mutazila scholar al-Jubbai.

934: Sufism: Abu Bakr al-Kattani estimated the number of mystical stations (*Maqam*) between man and God to be one thousand.

936: Recitation: Book by Ibn Mujahid on Quranic recitation.

936: Philosophy: **Al-Ashaariya** proposed systematic combination of Ahle Hadis dogma with methods of Ilm ul Kalam. Abul Hasan al-Ashaari (d. 935 of Basra) refuted Mutazila's extreme arguments and managed to salvage the spirit of rational inquiry. His book (*Istihsan al Khawd fil Ilm al Kalam*) approves the use of logical deduction (Qiyas) on the ground that the Quran recommends it and the Prophet (PBUH) practiced it (4).

He stated that it is the duty of every Muslim to resort to rational reasoning and sense experience on matters in which the Quran and Hadis were both silent.

He adopted the middle course between the views of Mutazila rationalists and the traditionalists such as Imam Malik and Imam Hanbal. On divine attributes, he rejected the Mutazila anthropomorphists (*Mushabbiha*) and corporealists (*Mujassimah*) who viewed these literally as well as the views of Imam Malik who opined that the very act of posing such questions amounted to heresy. This thesis became known as *Bila Kifayah* (ask not how).

Al-Ashaari rejected the Mutazila thesis that individuals, as free agents, were creators of their own deeds as it was equivalent to *Shirk* or at least dualism. He said that good and evil are the result of Allah's decree and are preordained (*Qada Wa Qadar*). He assumed middle position between the strict predestinationists (*Jabariyah*) and libertarianists (Mutazila). Human being could acquire *Kasb*, i.e., the power to distinguish between good and evil.

Ashaari Theologians:

Al-Baqillani (d. 1013), al-Baghdadi (d. 1037), al-Juwayni (d. 1086)

940: Philosophy: Abu Bishr Matta translated Plutarch's *Placita Philosophorum*.
Teacher of Bin Adi.

940: Hadis: Shia: Abu Jaafer ibn Ishaq **al-Kulayni** al-Razi was the author of *al-Kafi*, a collection of 15,181 Hadis of the Prophet, his companions, and the Shia imams (5).

(Ref: <http://www.al-islam.org/publishers/mtrust>)

Of these

5,072 are considered *Sahih* (sound),

144 *Hasan* (good),

178 *Muwaththaq* (trustworthy),

302 *Qawi* (strong) and

9,484 *Zaif* (weak).

941: Philosophy: **Ashaari**: Al-Maturidi, pupil of al-Ashaari.

941: Sufism: Khoja Abu Ishaq, a Syrian mystic living in Chisht, Afghanistan, founded the Chishtiya order, whose most famous proponent was Khawaja Moin ud din Chishti, Ajmer (1236).

942: Sufism: Al-Wasiti.

945: Sufism: Al-Shibli.

945: Philosophy: Neoplatonist: Tarkhan ibn Uzlagh **al-Farabi**: First systematic philosopher. He was received by the pro-Ismaili Buyid ruler Saif ud Daula of Aleppo. Farabi interpreted Islamic prophecy and theocracy using the rules of Greek philosophy. He proposed the "ontological argument" about the existence of God

	<p>(progression of parts into an ultimate perfect). This argumentation was reformulated in Europe by Saint Anselm in 1109 and restated by Descartes (d. 1650) (4).</p> <p>First stated in Plato's <i>Republic</i>, al-Farabi recast qualities for a philosopher king for a virtuous city-state according to the needs of his times. These include</p> <ol style="list-style-type: none"> 1. love of justice 2. truthfulness 3. quickness to learn 4. soundness of body and limb 5. eloquence 6. nobility of character 7. temperance 8. courage <p>In some respects, these qualities correspond to those enunciated in the Shia Imamate model. His important books included <i>Al Ara ahl al Medina al Fazila</i> (Opinions of the People of the Virtuous City), <i>Siyasat al Madniyya</i> (Politics of the Cities). In the first book, he defined the states indicating degrees of deviations from goodness:</p> <ol style="list-style-type: none"> 1. <i>Jahiliya</i> (ignorance) 2. <i>Fasiqa</i> (transgression) 3. <i>Mubaddila</i> (falsification) 4. <i>Dalla</i> (error) <p>These states can be further refined into substates.</p> <p>953: Sufism: Abul Abbas al-Sayyari of Merv. This is the only Sufism school that has managed to preserve its original doctrine to date.</p> <p>956: Philosophy: History: Geography: Al-Masudi, author of books <i>Meadows of Time</i> and <i>Meadows of Gold</i> (2).</p> <p>957: Theology: Shia: Hasan al-Khasibi, a leader of the Nusayriya sect.</p>
961-1010	<p>974: Philosophy: Metaphysics: Yahya bin Adi, Christian theologian of Baghdad.</p> <p>980: Sufism: Al-Rudhbari contributed to the concept of Tawhid enunciated by Ibrahim bin Adham.</p> <p>982: Sufism: Ibn Khafif of Shiraz tried to reconcile Sufi thought with orthodox thinking in the light of intense opposition (e.g., the martyrdom of al-Hallaj).</p> <p>988: Sufism: Abu Nasr al-Sarraj, author of <i>Kitab al Lumma</i> (Book of Flashes).</p> <p>994: Theology: Teaching and Dawa: Qadi Nauman, author of <i>Pillars of Islam</i>.</p> <p>994: Quranic Syntax: Al-Rummani argued that Quranic style is superior to that of mundane poetry.</p>

	<p>995: Sufism: Abu Bakr al-Kalabadhi enunciated the doctrine of Sufism in <i>Taaruf fil Madhab Ahl al Tasawwuf</i> (The Doctrine of the Sufis).</p> <p>996: Quranic Syntax: Al-Khattabi wrote about Quranic style.</p> <p>996: Sufism: Abu Talib al-Makki authored <i>Qut al Qolub</i> (Food for the Hearts) and advocated a moderate approach in Sufism.</p> <p>998: Philosophy: Abu Farraj ibn Ishaq al-Warraq, also known as Ibn Nadim, was a Shia scholar from Persia. His most famous book, <i>Kitab al Fihrist</i>, is a detailed bibliography of books on Islamic subjects organized into topics (3):</p> <ul style="list-style-type: none"> scriptures grammar history and biography poetry scholarly theology (Kalam) Fiqh and Hadis philosophy legends and fables doctrines (<i>Maqalaat</i>) of non-Islamic creeds: Hindus, Manicheans, Chinese, etc. alchemy <p>1000: Philosophy: Al-Sijistani: <i>Suwan al Hikmah</i> (Vessel of Wisdom), Brethren of Purity</p> <p>1008: Philosophy: Brothers of Purity: Ismailis: Some epistles were added later by al-Majriti in Spain.</p> <p>10th Century (2nd half): Theology: Kharaji: Hud ibn Muhakkam.</p> <p>10th Century: Brethren of Purity, Ismailism: Existence of two parallel hierarchies: spiritual (universal intellect) and corporeal, constituted by the dignitaries from imam downward. This was opposed by al-Razi being counter to the natural equality of man. The Brethren, under Abu Sulaiman al-Basti, al-Maqdisi, and others, produced the earliest encyclopedia consisting of fifty-one epistles (volumes) called <i>Rasail Ikhwan-i-Sufa</i> that combined Greek metaphysics and the works of Islamic authors including al-Farabi. These covered many areas including number theory, psychology, linguistics, etc. (counted as 10).</p>
1011-1060	<p>1011: Tafsir: Shia: Mutazila: Al-Jushami.</p> <p>1013: Philosophy: Ashaari jurist al-Baqillani argued that anything other than Allah is made up of juz, atoms, and accidents that can be positive or negative. Impermanence (<i>Fana</i>) is a property of created things. He was the author of fifty-two voluminous works dealing with Tafsir, the Sunni creed, and the miracles of the prophethood (3).</p> <p>1017: Philosophy: Al-Hasan ibn Suwar.</p> <p>1021: Sufism: Al-Sulami, composer of biographical lexicon of Sufism and</p>

commentator on the Quran (2).

1023: Philosophy: Hayyan al-Tawhidi of Baghdad was a student of the Christian scholar Yahya ibn Adi. He wrote *Conversations* containing 106 discourses with other scholars. He also wrote about the classification of the branches of knowledge. He was a pupil of al-Sijistani (3).

1024: Philosophy: Abu Rashid Neshapuri wrote about the Mutazila doctrine.

1025: Philosophy: Abdul Jabbar Hamadani was the author of an encyclopedia on Mutazila opinions.

1030: Philosophy: Ahmad ibn Mohammad Miskawayah was the author of philosophical essays *Experiences of the Nations*. He was the first to describe the idea of evolution. He authored *Jawidan Khirad* (Eternal Wisdom). He was called the **greatest ethical philosopher of Islam** (Ref: FM) (3)

1030~: Philosophy: Al-Natili of Bokhara was a teacher of Ibn Sina.

1037: Philosophy: **Ibn Sina, Avicenna**, was a physician and a polymath. He applied Greek metaphysics to an Islamic framework and developed Farabi's work. He produced 262 elegant works including his famous *Canon of Medicine*. In philosophy, he described the nature of the urge of a soul to achieve *Ittisal* (contact) with the Active Intellect rather than *Kashf* (union) or *Mushahidah* (vision) (5).

Discussed ontology (study of being) and classified its predicates into categories: quality, quantity, position, action, and passion. Developed the properties of the categories including actuality, potentiality, necessity, universality, unity, and multiplicity. He agreed with the Mutazila view that a *Shay* (thing) prior to its creation existed in God's mind. This is similar to the Platonic view that the "particulars" preexisted in the realm of ideas.

Starting with the concept of a necessary being (ultimate cause), he developed the contingency proof of the existence of God that was restated by Leibniz (d. 1716) and Kant (d. 1804).

Summary of the Proof: **Contingentia Mundi**: Being exists. It can be either necessary or contingent (caused). The series of causes cannot go ad infinitum. The members of the series can exist concurrently or not. The series as a whole can be necessary or contingent. If necessary, then it is impossible that every member is contingent. It must include one member, which is necessary and is the cause of the whole series. Such a cause must necessarily lie outside the series. In other words, a series of contingent entities making up the world must depend on a necessary being who is the ultimate cause.

In addition to his monumental book on medicine *Al Qanun* (The Canon), his other books on philosophy included *Kitab Shifa al Nafs* (Healing of the Soul), *Kitab*

	<p><i>Nijat al Nafs</i> (Salvation of Soul), <i>Kitab Isharaat wa Tanbihaat</i> (Indications and Hints), and <i>Kitab al Mubahathat</i> (Discourses).</p> <p>1037: Philosophy: Ashaari: Al-Baghdadi tackled the question of Baqa (permanence) that can be implemented only through continuous application of accidents. All accidents including that of permanence were created by Allah.</p> <p>1038: Theology: Shaafii: Abu Mansur al-Thalabi of Neshapur was also a calligraphist.</p> <p>1038: Sufism: Abu Nauman al-Isfahani compiled an ten-volume encyclopedia <i>Hilyat al Auliya</i> (Ornaments of the Saints) about the lives of the Sufis.</p> <p>1044: Theology: Shia: Sharif al-Murtada of Baghdad was a noted Shia theologian and grammarian.</p> <p>1045: Sufism: Abul Qasim al-Qushayri, author of Sufi commentary of the Quran.</p> <p>1048: Philosophy, Mathematics: Al-Biruni. Survey of Indian philosophy (3).</p> <p>1049: Sufism: Abu Said Abul Khair of Khorasan wrote <i>Asrar al Tawhid</i> (Mysteries of Unification).</p> <p>1052: Recitation: Al-Dani wrote about the styles of Quranic recitation.</p> <p>1057: Philosophy: Abul Ala al-Maarri of Syria was a freethinker with Indian strain. He happened to be a vegetarian and Jainist and a pessimist. He rejected all organized faiths as well as the Persian ones (Ref: FM).</p> <p>1058: Philosophy: Politics: Al-Mawaridi leaned toward the Mutazila. He developed the political theory of the caliphate. He also wrote a commentary on the Quran.</p> <p>1058: Philosophy: Ibn Gabirol (Avicbron) was a Jewish Neoplatonist.</p>
1061-1110	<p>1064: Theology: Neo-Hanbalite: Ibn Hazm (b. 994 in Cordoba, Spain). His famous work is <i>Tawq al Hamamah</i> (Ring of the Dove). In his book <i>Al Ibtal</i> (Rebuttal), he rejected recourse to all forms of deduction, analogy, opinion, or imitation (<i>Taqlid</i>). Instead, he promoted reliance on the Quran and Sunnah. He was also against the Mutazila and the Ashaari doctrines (3).</p> <p>1066: Philosophy, Mathematics: Abul Hakam al-Kirmani of Spain was a disciple of al-Majriti (2).</p> <p>1067: Theology: Shia: Mutazila: Abu Jafar al-Tusi (2).</p> <p>1072: Sufism: Al-Qushayri, author of a classical handbook (under Seljuq Alp Arsalan). He defined the difference between Maqam (the station) and Hal (the state) during the mystical process. He formally defined mystical terms (3):</p> <p style="padding-left: 40px;"><i>Waqt</i> (mystical moment) <i>Qabd</i> (contraction) <i>Bast</i> (expansion) <i>Jam</i> (concentration) <i>Farq</i> (separation) <i>Fana</i> (passing away)</p>

Baqa (continuance)
Ghayba (absence)
Huzur (presence)
Sahw (sobriety)
Sukr (intoxication)
Qurb (nearness)
Bud (remoteness)

He also described the complete process of a mystic's progress spread over forty-five stations. The important ones included

Tawba (conversion)
Mujahida (striving)
Khalwa (solitariness)
Taqwa (the awe of God)
Wara' (abstaining)
Zuhd (renunciation)
Samt (silence)
Khawf (fear)
Raja' (hope)
Huzn (sorrow)
Rida' (satisfaction)
Abdiya (servanthood)
Irada (desire)
Muhabbat (love)
Shawq (yearning)

1075: Sufism: **Syed Ali Hajwairi** of Lahore was the author of *Kashful Mahjub*, the first systematic study of Sufism (2).

1076: Theology: Shaafii: Al-Wahidi, a student of al-Thalabi and author of a magnum opus on Tafsir (2).

1078: Quranic: Syntax: Semantics: Abdul Qahir al-Jurjani developed the theory of imagery in the Quran.

11th Century: Theology: Radkahni of Tus, a teacher of Imam Ghazali.

11th Century: Theology: Abul Qasim al-Isma'ili of Jurjan, a teacher of Imam Ghazali.

1086: Philosophy: **Ashaari**: Al-Juwayni was the author of *Al Shamil* and *Al Irshad*. He also taught Imam Ghazali (2).

1087: Theology: Shia: Muayyad al-din al-Shirazi, an Ismaili scholar in the service of Caliph Mustansir Billah (1036-1094).

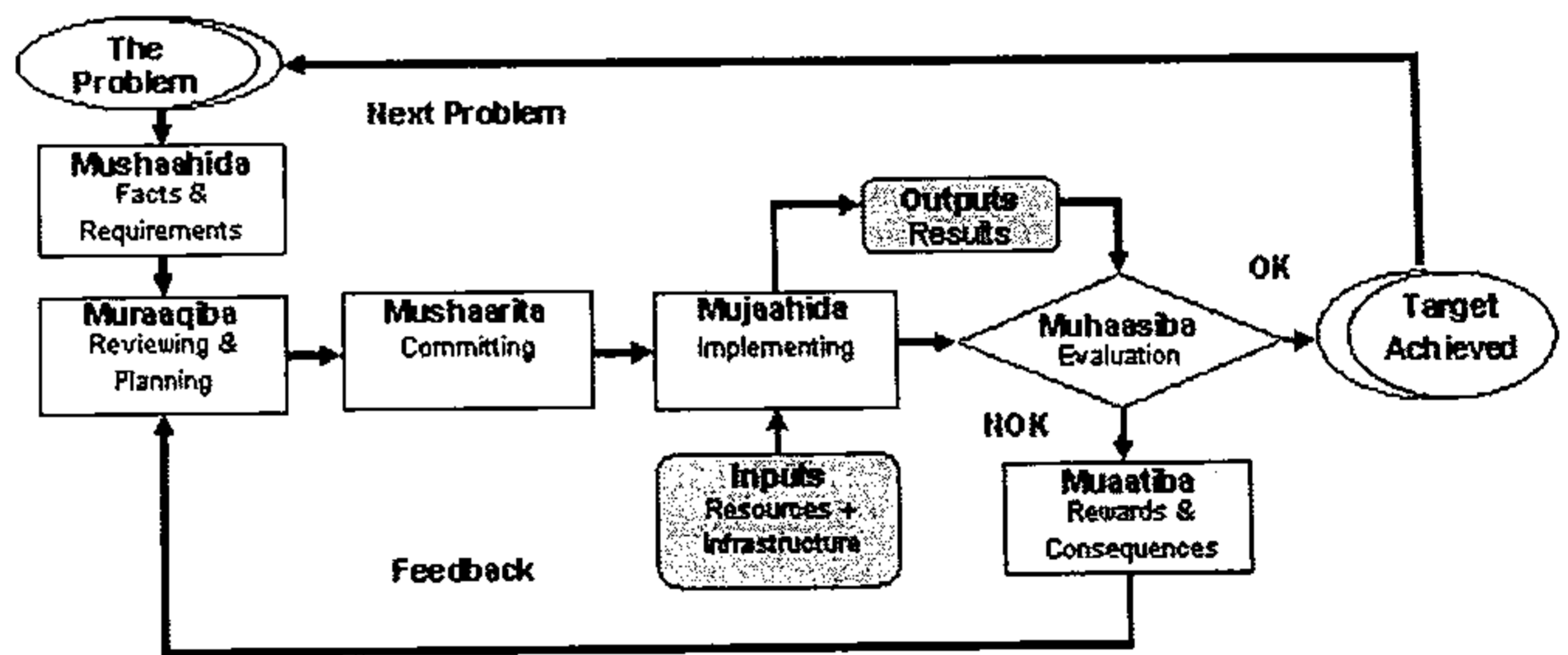
1088: Theology: Nasir-i-Khusraw promoted the Ismaili creed.

1089: Sufism: Hanbali Sufi Abdullah al-Ansari, writer of Persian poetry and prose.

1111-1160

1111: Philosophy, Theology: Ashaari: **Abu Hamid al-Ghazali** (b. 1058 in Tus, Persia) was a critic of speculative theology and philosophy. He worked for the renewal of Sunni tradition combining it with Sufi piety. He is attributed to have authored over 400 works. Imam Ghazali gave up his chair at Nizamiyah to concentrate on his epic work, *Revival of Sciences of Religion*. After his ten-year hiatus, he began writing *Ihya ul Ulum al-Din* (Ref: AGI, AGT). His other famous work is *Tahafut i Filasifa* (On the Incoherence of Philosophers) in which he states that logic alone is not enough in seeking for the ultimate truth. In *Ihya ul Ulum al-Din*, Ghazali outlined a process for self-improvement that consisted of multiple states, including *Mushaahida*: Observing, collecting facts, and determining the requirements. *Muraaqiba*: Retreating to do reflection for the purposes of reviewing and planning. *Mushaarita*: Committing oneself and arranging resources that are necessary for implementing the plan. *Mujaahida*: Making struggle for implementing the plan and achieving the results. *Muhaasiba*: Evaluating the quality and extent of the achieved results. *Muaatiba*: Seeking supplication for rewards and consequences. Feedback to the Muraaqiba stage to start the process once again.

The following diagram is an interpretation of his process for self-improvement (5).



1122: Hadis: Abu Mohammad al-Baghawi was a Persian who wrote *Tafsir i Baghawi*. His works later developed into the classic *Mishkat al Masabih* with additions by later scholars.

1123: Philosophy: Omar Khayyam (b. 1048 in Neshapur) was a polymath, poet, mathematician, and liberal thinker leaning toward agnosticism. He expressed despair and futility of life much like twentieth-century existentialists. For his other contributions, see appendix 3d (5).

1123: Sufism: Ahmad al-Ghazali, the brother of Abu Hamid al-Ghazali, formally defined the Trinitarian Sufi theme of Love, Lover, and the Beloved.

1130: Sufism: Sanai was the distinguished Persian mystic poet.

1130: Ashaari: Ibn Tumart (b. 1080) was a Berber from Maghreb. Being influenced by Imam Ghazali's teachings, he started a reform movement al-Mowahhidun (Almohads) who later seized power from the orthodox Almoravids in Maghreb and Spain. The Almohad leader Abd al-Mumin extended his power to Spain in 1146 and established their capital in Seville (2).

1131: Sufism: Ayn al-Qudat Hamadani contributed to the Trinitarian theme of Love, Lover, and the Beloved.

1138: Philosophy: Abu Bakr al-Sayigh ibn Bajjah (born at Zaragoza, Spain) belonged to the Aristotelian school and was a polymath. He worked on Farabi's logic. He authored *Conduct of the Solitary* about Neoplatonic view of intellect (acquired from the Active Intellect). In his book *Tadbir al Mutawahhid* (Governance of the Solitary), he proposed that in the case of decaying societies, scholars dedicated to excellence should have nothing in common with the ordinary people (3).

1141: Sufism: Ibn al-Aref (b. 1088 in Almeria, Spain) wrote the book *Mahasin al Majalis* (Benefits of Gatherings).

1142: Religion: Robert of Ketton, an English scholar resident in Spain completed the first Latin translation of the Quran.

1144: Philosophy: Qutub al-Zaman Abu Tahir al-Marwazi of Khwarizm was a prominent philosopher.

1144: Religious Science: Abu Qasim Mahmud ibn Omar Zamakhshari of Khorasan was a Mutazila commentator on the Quran and philologist. He was a prolific writer. His works include the *Al Kashshaf* (The Revealer) on Hadis, *Asas ul Balaghat dar Lughat* (Essence of Eloquence in Dictionary) (2).

1150: Sufism: Hakim Majid ud din Adam Sanai of Ghazni, author of *Haqiqat ul Haqiqah* (Walled Garden of Truth). He left the court of Bahram Shah even after being tempted with the hand of his daughter. He was the earliest promoter of pan-Islamism and for bridging the Shia-Sunni divide.

1152: Philosophy: Abu Barakat Hibat Ullah of Baghdad who converted to Islam in his old age authored the influential book *Kitab al Mutabir*. He proposed two arguments for why things happen (causation). Consider the case of a man crossing a road on his own conscious will and that of a scorpion driven by unknown stimuli to do the same. If the man is stung by the scorpion, then it will be an act of chance. God who has the power to will anything will sometimes, but not always, directly intervene in such worldly affairs (2).

1153: Philosophy: Al-Shahrastani, an Ashaari heresiographer, worked on pre-Socratic philosophy of Porphyry. He wrote the book *Nihayat al Iqdam* (Limits of Steps).

1160: Philosophy: Ashaari: Al-Qalanisi proposed that when Allah wills to destroy something. He creates in it the accident of *Fana* (impermanence).

12th Century: Mysticism: Persian: Maybudi, author of *Kashful Asrar* (Opening of Secrets), a text with considerable literary merit.

12th Century: Theology: Adib Ahmad of Yuknek, Turkey, wrote *Aybat al Haqaiq* on Islamic moral values.

1161-1210	<p>1164: Sufism: Ibn Hirzihim of Fez, Morocco.</p> <p>1165: Theology: Sunni: Ibn Hubayra, the vizier of Baghdad, completed the work <i>Survey of Sunnism</i>.</p> <p>1166: Sufism: Abdul Qadir Jilani of Gilan, Persia, was the foremost Sufi who reconciled the legalistic school of Hanbalites with ecstatic mysticism (Ref: JAQ). He authored <i>Ghuniat Talibeen</i> (Provision for the Seekers). In his travels, he is reputed to have also visited Multan, Pakistan (4).</p> <p>1168: Sufism: Abu al-Najib al-Suhrawardi (b. 1097 in Persia) set up a school that eventually developed into the Suhrawardiyya order under his follower Shahab ud din Suhrawardi.</p> <p>1175: Sufism: Ahmad al-Rifai of Basra founded the Rifaiyah order.</p> <p>1177: Sufism: Abu Yaazaa Yalnour was an important Sufi of Morocco.</p> <p>1185: Philosophy: Abu Bakr ibn Tufail (b. 1105 in Gaudix near Granada, Spain) came in contact with Almohad caliph Abu Yaqub Yusuf. His teacher was Ibn Bajja (Avempace) of Zaragoza. He authored the famous allegorical work <i>Hayy ibn Yaqzan</i> (Living Son of the Wakeful). Rudyard Kipling's <i>The Jungle Book</i> is on the same lines (3).</p> <p>1183: Sufism: Ahmad al-Rifai, nephew of Abdul Qadir Jilani, founder of a fanatical Sufi order that allowed self-mortification practices, such as fire-walking, glass-eating, etc. This is probably the influence of Shamanism during the Mongol invasion of Iraq.</p> <p>1191: Sufism: Shahab ud din Yahya al-Suhrawardi (b. 1155 in Persia) also known as <i>Maqtul</i> (martyr). He was a pupil of Abdul Qadir Jilani and author of many works including <i>Awarif al Maarif</i> (Benefits of Gnosis). He was the teacher of Gnostic cosmology and illumination (<i>Hikmat ul Ishraq</i>) and founder of one of the most important Sufi orders. He was charged with heresy for introducing <i>Batini</i> (Shia Ismaili) teachings and declared Zindiq. At the age of thirty-six, he was executed on the orders of Sultan al-Zahir, the son of Sultan Saladin (3).</p> <p>1195: Almohad ruler Abu Yusuf falls out with and persecutes unorthodox scholars including Ibn Rushd (Averroes).</p> <p>1197: Theology, Law: Abul Hasan al-Magrinani wrote an important book on Hanafi jurisprudence that was referred to by Muslim courts.</p> <p>1198: Sufism: Abu Madyan ibn Hussain al-Ansari (b. 1115 near Seville, Spain) was a mystic poet who influenced Qadiri and Shadili Sufi thoughts in North Africa.</p> <p>1198: Philosophy, Religion, Jurisprudence, and Medicine: Abu Walid ibn Ahmad ibn Rushd (Averroes) (b. 1126 in Cordoba, Spain) came from a family of Maliki jurists. He was a student of Abdul Malik ibn Zuhr (Avenzoar, 1091-1161). He was introduced by Ibn Tufail, the vizier to the Almohad ruler Abu Yaqub Yusuf, and appointed chief Qazi of Seville. Ibn Rushd was a true polymath: physician, philosopher, and commentator on Aristotle. His commentaries were highly structured, consisting of three parts:</p>
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	<p><i>Jami</i> (overview) <i>Takhlis</i> (summary) <i>Tafsir</i> (advanced study)</p> <p>He authored <i>Tahafut i Tahafut</i> countering Ghazali's <i>Tahafut i Filasifa</i>. He wrote an encyclopedia on medicine, <i>Kulliyat</i>, and on law. He met with Muhy ud din ibn Arabi (b. 1165), Ishraqi Sufi and philosopher of Murcia, Spain (5).</p> <p>1200: Rhetoric: Sermons: Abul Faraz al-Jawzi wrote a handbook for preachers.</p> <p>1204: Philosophy, Medicine: Moses Maimonides (Rambam) (b. 1135 in Cordoba, Spain) was a Jewish-Arab philosopher who wrote about Jewish law and commentary on Mishna in Arabic. He listed thirteen articles of faith. He travelled to Cairo (d. 1204 in Cairo) and served as a physician to Sultan Saladin (3).</p> <p>1209: Philosophy: Ashaari: Abu Abdullah Fakhar ud din al-Razi (b. 1149 in Rayy) (not to be confused with Zakariyya Razi [Rahzes], the physician, b. 865) worked on space-time and atomic composition of bodies. He was the follower of Platonist philosophy. His metaphysical work related to Plato, Socrates, and Timaeus, theory of soul, etc. He believed reason was enough to enlighten the humankind and prophethood may be superfluous. People who have doubts and having struggled in vain to find the truth may be forgiven by Allah. Propounded the notion of natural equality of man. This was opposed by the Ismaili theologians. He was the keen defender of Sunnah. His most famous work is <i>Tafsir Kabir</i>, a commentary on the Quran. He authored <i>Al Arbain fi Usul al Din</i> (Four Principles), <i>Al Muhassal</i> (The Extract), and <i>Shukuk al Jalinus</i> (Doubts Concerning Galen) (4).</p> <p>12th Century: Theology: Mughatil bin Atieh Bakri was the son-in-law of Nizam ul Mulk (vizier of the Seljuq sultan Alp Arsalan). He wrote a treatise describing a Sunni-Shia debate. The Shia scholars are reputed to have convinced the sultan and Nizam ul Mulk, both of the Sunni Shaafi school, to convert to Shiaism.</p> <p>1209: Sufism: Abu Mohammad Ruzbihan Baqli of Shiraz wrote mystical poetry in the Shirazi dialect.</p>
1211-1260	<p>1215: Theology: Al-Harawi al-Mawsali was the author of <i>Kitab al Ziyarat</i> (Book of Vistas).</p> <p>1220: Sufism: Farid ud din Attar of Neshapur was the author of the mystic poetry book <i>Mantiq al Tayr</i> (Conference of Birds) describing the seven valleys on the road to mystic love. His thoughts influenced Jalal ud din Rumi (2).</p> <p>1221: Sufism: Najm ud din Kubra of Khwarizm (pupil of Abdul Qadir Jilani) founded the Kubrawiyya order. He was killed during a Mongol attack (2).</p> <p>1225: Sufism: Abdus Salam ibn Mashish was a Sufi scholar and teacher of al-Shadili.</p> <p>1229: Rhetoric: Sermons: Abu Yaqub al-Sakkaki.</p> <p>1230: Sufism: Khawaja Moin ud din Chishti, Gharib Nawaz, was born in Sistan, Khorasan, in 1141. He was urged to settle in Ajmer by Hazrat Data Ganj Bakhsh.</p>

	<p>He was the founder of Chishtiya order of Sufism. He authored <i>Daleel al Arifeen</i> (Argumentation of Saints) (3).</p> <p>1231: Sufism: Baha al-Din Walad of Balkh was a master Sufi himself and the father of Jalal ud din Rumi. He wrote on meditations and intimacy of divine love.</p> <p>1234: Sufism: Abu Hafs Umar Suhrawardi expanded the Suhrawardiyya order. He was a teacher of Abbasid caliph al-Nasir.</p> <p>1235: Sufism: Qutub ud din Bakhtyar Kaki of Delhi belonged to the Chishtiya order.</p> <p>1235: Sufism: Ibn Farid of Cairo wrote in Arabic a book on divine love, <i>Khamariyya</i> (Ode to Wine).</p> <p>1236: Sufism: Khawaja Moin ud din Chishti of Ajmer, India (2).</p> <p>1240: Sufism: Muhy ud din ibn Arabi (b. 1165 in Murcia, Spain) was the originator of the philosophy of mystical illumination (<i>Ishraq</i>) based on Pantheistic monism (summarized by the phrase "All is One, One is All, All is God"). He travelled to Middle East and died in Damascus. He wrote at least three hundred works including <i>Wahdat al Wajud</i> (Unity of Being) and <i>Futuh al Makkiyya</i> (Meccan Illuminations) (5).</p> <p>1244: Sufism: Shams ud din Tabrizi of Azerbaijan was the author of mystic poetry and <i>Maqalat i Shams</i> (discourses). He introduced Jalal ud din Rumi to the path of mysticism after he arrived at Konya from where he suddenly vanished from the scene. He is believed to have been buried either in Konya, Turkey, or Ziyarat, in Pakistan. The tomb at Multan is not his but that of Pir Shams Sabzwari (2).</p> <p>1247: Sufism: Najm ud din Razi of Khwarizm was a pupil of Najm ud din Kubra and a contemporary of Jalal ud din Rumi.</p> <p>1256: Hadis: History: Sibt ibn al-Jawzi was the grandson of Hanbali scholar Abul Farraj ibn al-Jawzi. His works include <i>Mauzuat al Kubra</i> (Grand Topics) relating to the faulty traditions and a history book, <i>Mirat al Zaman</i> (2).</p> <p>1258: Sufism: Al-Shadili, born in Ceuta, Morocco, was the founder of an order with conservative doctrine and orthodox practices.</p>
1261-1310	<p>1262: Sufism: Baha ud din Zakariyya Multani promoted the Suhrawardi school in India.</p> <p>1265: Sufism: Farid ud din Shakar Ganj of Pakpattan, Pakistan, belonged to the Chishtiya order.</p> <p>1269: Philosophy: Sufi Ibn Sabin of Spain was the partisan of Existential monism (<i>Wahdat al Wajud</i>, oneness of being). He was a contemporary of Saint Thomas Aquinas. He is reported to have committed suicide in Mecca because he felt the need for an immediate union with God.</p> <p>1273: Sufism: Maulana (Mevlana) Jalal ud din Rumi was born on 1207 in Balkh, Afghanistan, and died at Konya, Turkey. His family moved to Anatolia ahead of the Mongol invaders. Rumi became friends with Shams Tabrizi and wrote an elegy, "Divan al Kabir," on his passing away. His most popular and a</p>

	<p>work of everlasting beauty is <i>Masnavi i Manavi</i> (Spiritual Couplets) of mystical didactic Persian poems. He was the originator of the <i>Mevleviyya</i> (Dancing Dervish) order (5).</p> <p>1275: Sufism: Sadr ul din Qonewi.</p> <p>1274: Philosophy, Astronomy, Mathematics, and Medicine: Mohammad Nasir ud din al-Tusi (b. 1201 in Tus, Khorasan) was a polymath, a Shia theologian, and a noted astronomer. He served the Assassins as well as the Mongols. He convinced Halaku to establish an observatory at Maragha, where he worked and computed accurate tables. He invented a geometrical technique to produce linear sum as the sum of two circular motions, called the Tusi couple, using it to produce planetary motion model as an alternative to the Ptolemaic model. He worked on spherical trigonometry, chemistry, (conservation of mass), biology (evolution model), and philosophy (Kalam, from the Shia point of view). His works include <i>Zij Ilkhani</i> (Tables for the Ilkhans), <i>Tazkira fil Ilm al Haya</i> (Discourse of Science of Astronomy), and <i>Tajrid al Aqaid</i> (Renewal of Beliefs) (5).</p> <p>1276: Sufism: Ahmad al-Badawi. His Sufi order is still prevalent in Egypt.</p> <p>1282: Religion: Tafsir: Al-Baydawi, Qadi of Shiraz, revised the orthodox commentary on the Quran by al-Zamakhshari (d. 1144).</p> <p>1288: Sufism: Abu Abbas al-Mursi was a successor of al-Shadili.</p> <p>1289: Sufism: Al-Iraqi was an author of Ishraqi mystical poetry. He was influenced by Ibn Arabi.</p> <p>1297: Sufism: Al-Busiri of Egypt authored the famous and still popular ode to the Prophet, <i>Qasida al Burda</i> (Ode of the Mantle) (2).</p> <p>1298: Sufism: Abu Hamid Auhad ud din Kermani wrote <i>Misbah ul Arvah</i> (Lantern of Souls) about an allegorical journey through imaginary towns. It bears close affinity to Dante's <i>Divine Comedy</i> (2).</p> <p>1300: Theology: Ibn Qayyim al-Jawziyah was a neo-Hanbalite scholar. (See also Ibn Hazm, d. 1064.)</p> <p>1301: Sufism: Taj ud din al-Sanjani (Zahid Gilani) was the founder of the Zahediya order of Lahijan</p> <p>1303: Sufism: Safi ud Din established the Dervish order in Azerbaijan.</p> <p>1310: Religious Science and Law: Hafiz al-Din al-Nasafi was a noted Hanafi lawyer.</p> <p>1310: Sufism: Poetry: Gulshahri was a mystical poet.</p> <p>1310: Religion: Rabghuzi wrote <i>Qisas ul Anbiyya</i> (Stories of the Prophets) in Turkish.</p>
1311-1360	<p>1311: Sufism: Astronomy: Qutub ud din al-Shirazi authored a book, <i>Durrat al Taj Ghurratt al Dubaj</i> (Pearly Crowns), dealing with Suhrawardi illuminist Sufism (2).</p> <p>1320: Sufism: Mahmud Shabistari of Tabriz was influenced by Muhy ud din ibn Arabi. His mystic work is <i>Gulshan i Razz</i> (The Secret Rose Garden).</p>

	<p>1320: Sufism: Yunus Emre was the famous Turkish Sufi writer (2).</p> <p>1325: Sufism: Nizam ud din Auliya, Mahboob i Ilahi of Delhi, was a proponent of the Chishtiya order.</p> <p>1325: Philosophy: Fiqh: Shia Allama al-Hilli was a pupil of Nasir ud din Tusi who systemized the Shia doctrine of Imamate (2).</p> <p>1328: Philosophy, Fiqh: Neo-Hanbalite: Taqi ud din Abu Abbas Ibn Taymiyyah (b. 1263 in Harran, Turkey) was an important Hanbali scholar, lawyer, and theologian. He was the main exponent of orthodox Islam. He attacked everybody, including Caliphs Osman and Ali, Kharajis, Shias, Murjia, Mutazila, Ashaari, and Sufis. He also rejected recourse to systemic theology, Kalam, insisting on return to the ways of <i>al Salaf al Salih</i>, the pious ancestors (companions and Taibeen). He was imprisoned several times in Cairo under the Mamluks accused of literal interpretation of the Quran under which several ayahs can be seen as ascribing human attributes to God (anthropomorphism). His thoughts gave rise to the Salafi and the Wahhabi movements. His works include <i>Minhaj as Sunnah al Nabwiyya</i> (Pathways of Prophet's Sunnah) and <i>Majma al Fatawa al Kubra</i>, a compilation of fatwas (4).</p> <p>1334: Sufism: Safi ud din Ardebili was a notable disciple of Zahid Gilani.</p> <p>1338: Theology: Shaafii Qadi of Syria was the author of a book on rhetoric.</p> <p>1345: Theology, Fiqh: Imam al-Nasafi Nakhshab wrote <i>Al Aqidah</i>, a standard textbook on Fiqh (2).</p> <p>1348: Hadis: History: Shams ud din al-Dhahabi (b. 1274 in Damascus) was a Shaafii scholar who also wrote a twenty-four-volume book on history, <i>Tarikh al Islam al Kabir</i> (2).</p> <p>1350: Theology: Ibn al-Qayyim al-Jawziyah (b. 1292 near Damascus) was a Hanbali scholar influenced by Ibn Taymiyyah. He wrote on the controversy about the practice of <i>Muta</i> (contract and temporary marriages). He was a teacher of Ibn Kathir.</p> <p>1353: Religious Teaching: Ibn Marzuq was a teacher and statesman at Granada.</p> <p>1355: Philosophy: Adud din al-Iji was the author of <i>al-Mawafiq</i>, a text on Ashaari creed (2).</p> <p>1359~: Religion: Torah: Maulana Shahin Shirazi was of Jewish faith. He worked for thirty years on <i>Musa Nama</i>, (Pentateuch, the five books of Torah, Genesis, Exodus, Leviticus, Numbers, and Deuteronomy) in Persian verse using Hebrew script, imitating the style of Shah Nama (2).</p> <p>1360: Religion: Mahmud of Kerder wrote <i>Nahj al Faradis</i> (Stories of Heavens) in the genre of Forty Hadis in Turkish.</p>
1361-1410	<p>1373: Theology, Tafsir: Neo-Hanbalite, Abul Fida Imad ud din ibn Kathir (b. 1301 in Busra, Syria) was a disciple of Ibn Taymiyyah. He authored the monumental <i>Tafsir i Kathir</i>, a history book <i>Al Bidayah wal Nihayah</i> (The Beginning and the End), and <i>Sirah wal Nabwiyya</i> (Prophet's Sirah) (4).</p> <p>1383: Sufism: Salah ud din Bukhari compiled a book <i>Anis al Talibeen</i> on the</p>

	<p>teaching of his teacher Baha ud din Naqshbandi.</p> <p>1389: Sufism: Baha ud din Naqshbandi (b. 1318) of Bokhara was the founder of the most important Sufi order. He forbade recording of his sayings (2).</p> <p>1389: Sufism: Ibn Abbad of Ronda was known for his work on speculative mysticism. His work was brought to light by Ason Palacios.</p> <p>1390: Theology: Al-Taftazani wrote a commentary on <i>Aqidah</i> (creed) by al-Nafasi.</p> <p>1400: Rhetoric: Sermons: Shuaib al-Hurrayfish wrote <i>Al Rawad al Faiq</i> (The Splendid Garden), a collection of sermons.</p> <p>1406: Philosophy, History, and Sociology: Abu Zayd Abdul Rahman ibn Khaldun al-Hazrami (b. 1332 in Tunis) was a polymath. He was a historian, statesman, jurist, and social scientist. He was the originator of system of history as a political science. He served under the Mamluks of Cairo. He was the main negotiator with Timur when he attacked and besieged Damascus in 1401. He authored <i>Muqaddima</i> (Prolegomenon in Latin), a profound work dealing with social cohesion in an emerging society and the precursor of modern theory of conflict, optimum taxation rate (Laffer curve), etc. His other works included <i>Kitab ul Ibar</i> (History of the World) and <i>Lubab al Muhassal</i> (Summary of the Extract). His other works include a commentary on the theology of al-Razi, on Sufism, on Sifat al-Sail (Qualities of a Seeker), and on logic, <i>Allaqa lil Sultan</i>, that he dedicated to Mohammad V of Granada (5).</p> <p>1409: Sufism: Yazijoghlu Mehmed Bijan wrote <i>Muhammadiye</i>, a mystical work written in Turkish.</p> <p>14th Century: Sufism: Moin ud din Junaid Shirazi was a mystic poet and author of <i>Shad al Izhar</i> (Force of Expression).</p>
1411-1460	<p>1413: Theology: Ashaari: Ali al-Jurjani of Timur's court wrote a commentary on al-Iji's book <i>Al Mawaqif</i>.</p> <p>1418: Theology: Shaafii Law: Al-Qalaqashandi was the author of a seven-volume encyclopedia (3).</p> <p>1416: Sufism: Sufi Badr al-Din of Rumelia was declared a Zindiq, a heretic, and executed.</p> <p>1426: Theology: Maliki Law: Ibn Asimo was the Qadi, judge of Granada, and author of <i>Tuhfa</i> (Gift), a book of verse.</p> <p>1428: Sufism: Abdul Karim al-Jili was an adherent of Ishraqi doctrine of Ibn Arabi.</p> <p>1448: Theology: Shaafii: Ibn Hajar al-Asqalani (b. 1372 in Cairo) was a prolific author. His works include the famous <i>Fath al Bari</i>, a commentary on Sahih Bukhari along with books on Shaafii Fiqh and a history of the compilers of Hadis (2).</p>
1461-1510	<p>1465: Sufism: Al-Jazuli of Morocco was author of <i>Dalail al Khayrat</i> (Indications of Virtues) that exalted the personality of the Prophet as a perfect man.</p> <p>1492: Sufism: Nur ud din Jami of Khorasan was one of the greatest poets who reconciled philosophy with theology. He authored <i>Lawaih</i> (Effulgence), a treatise on Sufism (3).</p>

	<p>1502: Theology, Philosophy: Al-Dawwani developed of theory of Islamic state according to the ideas of al-Farabi and Nasir ud din Tusi (2).</p> <p>1504: Religion: Kashifi of Herat was a preacher and author of edifying prose and poetry.</p> <p>1505: Religion: Theology: Imam Jalal ud din al-Suyuti (b. 1445 in Cairo) served as the imam of the mosque of Baybars. He travelled widely to Arabia, Syria, Yemen, and even India. His prolific works, 283 in total, included those on Tafsir, Hadis, history, and ethics (3).</p> <p>15th Century: Religion: Dede Korkut wrote Quranic Tafsir in a popular style in Turkish.</p>
1511-1560	<p>1532: Quran: Paginus Brixiensis of Rome published the first Latin version.</p> <p>1534: <i>Counterreform</i>: <i>Ignatius Loyola</i> founds a Roman Catholic counterreformation movement that would lead militant activities against Muslims in the Far East.</p> <p>1539: <i>Counterreform</i>: <i>Guru Nanak</i>, fusing the teaching of Hinduism and Islam, founded the Sikh religion that would militate against the Muslims in later years.</p> <p>1550: Indonesia: Islam spreads throughout Malaysia and Indonesia with the establishment of the strong Muslim sultanate of Aceh in Sumatra.</p> <p>1556-1605: <i>Counterreform</i>: <i>Mughal emperor Akbar</i> introduces an artificially synthesized religion, <i>Deen-i-Elahi</i>.</p> <p>1558: Theology: <i>Zain al-Din al-Amili</i> was a Persian Shia theologian, mathematician, and poet.</p>
1561-1610	<p>1570~: Theology: Al-Birqili was a noted commentator</p> <p>1574: Legal Matters: Abu al-Suud, Sheikh al Islam of Turkey, improved the <i>Qanun Nama</i> (Legal Document) of Sultan Sulaiman I.</p> <p>1583: Sufism: Wahshi of Baqf, a writer of Sufi romantic poetry.</p> <p>1600~: Sufism: Poet Hamza Fansuri of Malaysia.</p>
1611-1660	<p>1624: Theology: Abdul Haqq Dehlavi of India. (He regarded the ascension of Razia Sultana [1236-40], the first Muslim queen, to be contrary to Shariah).</p> <p>1624: Theology: Sheikh Ahmad Sirhindi of India, <i>Mujaddid Alf Thani</i>, was acknowledged as the reviver of Islamic teachings for the second millennium of Hijra (3).</p> <p>1628: Sirah: Veysi was the author of biography of the Prophet in Turkish.</p> <p>1629: Sufism: Poet Shams ud din Pasai of Malaysia.</p> <p>1630: Hadis: Shia: Muhammad Baqar bin Damad, a commentator on Kulayni's <i>al-Kafi</i>.</p> <p>1640: Philosophy: Sadr ud din Shirazi (Mullah Sadra) (b. 1571 in Shiraz, Persia) was one of the most important Muslim philosophers and theologians. His school of transcendental philosophy is known as <i>Al Hikmah wal Mutaliya</i> (Knowledge and</p>

	<p>Study). He authored thirty-nine works including <i>Al Asfar al Arbaa</i> (Four Books) that summed philosophies of Ibn Sina and Suhrawardi, <i>Al Tanqih</i> (Formal Logic), and <i>Tasawwar wal Tasdeeq</i> (Imagination and Confirmation) (5).</p> <p>1647: Quran: Du Ryer completed the first translation in French. His version will be later used by Alexander Ross for his English translation.</p> <p>1656: Theology: Kadizadeli emerged in Turkey as a puritanical movement seeking to prohibit music, dancing, and other luxuries. Its adherents were banished to Cyprus by the grand vizier Koprulu Mehmed.</p> <p>1658: Theology: Nur ud din Raniri (b. Gujarat, India) influenced the religious teaching in Malaysia and Aceh, Indonesia. He was against the Sufi concept of pantheism. He authored <i>Bostan al Salatin</i> (Garden of Kings).</p> <p>1659: Theology: Shia: Taqi al-Majlisi was one of the most important Shia scholars of the Safavids.</p>
1661-1710	<p>1668: Sunni Faith: Aurangzeb, the Mughal emperor, commissioned new madrassas for the dissemination of orthodox Sunni Islam in India.</p> <p>1678: Hadis: Shia: Al-Qazvini, a commentator on Kulayni's <i>al-Kafi</i>.</p> <p>1680: Theology: Shia: Mullah Mushin Fayd of Kashan authored <i>al-Wafi</i>, the most important Shia work on Hadis.</p> <p>1693: Sufism: Poet Abdul Rauf al-Singkili of Malaysia.</p> <p>1698: Theology: Shia: Baqar al-Majlisi, son of Taqi al-Majlisi, was the minister of Safavid sultan Hussain. He wrote a commentary on Kulayni's <i>al-Kafi</i>. As a proponent of the Akhbari Twelver Shiaism, he began a campaign against non-Muslim minorities, Sufis, Sunnis, and even other branches of Shiaism. He promoted the public mourning of Imam Husain's martyrdom and the bringing of the annual Taziyah processions (3).</p> <p>1699: Hadis: Shia: Al-Mazandarani, a commentator on Kulayni's <i>al-Kafi</i>.</p>
1711-1760	<p>1731: Sufism: Abdul Ghani al-Nablusi was a poet and a commentator of mystical literature.</p> <p>1734: Quran: G. Sales published the first original translation of the Quran from Arabic to English. This version is still admired for its quality.</p> <p>1742: <i>Countermovement</i>: <i>Voltaire's anti-Muslim drama Le Fanatisme, ou Mahomet la prophee (Fanatism, or the Prophet Mohammad) is performed in Paris.</i></p> <p>1747: Shia Theology: Akhbaris and Usulis were two schools of Shias in Persia who struggled for dominance. Usulis emerged as the successful party.</p>
1761-1810	<p>1762: Reformist: Shah Wali Ullah (b. 1703 in Delhi) was the first original thinker of the reform movement. He was a prolific writer on Tafsir, Shariah, jurisprudence, and politics. He was strongly opposed to the monarchical system of governance including those of the Umayyads and the Abbasids. He is still revered by different schools of thought including Deobandi, Bareilvi, Ahle Hadis, and the Sufis (3).</p>

	<p>1764: <i>Countermovement</i>: French philosopher Voltaire publishes his speculative essays in the book <i>Dictionnaire Philosophique Portatif</i>. He is relentless in his criticism of the Christian, Judaic, and Islamic monotheism.</p> <p>1788: Theology: In the <i>History of the Decline and Fall of the Roman Empire</i>, Edward Gibbon's apparent preference for Islam over Christianity draws censure by the Anglicans.</p> <p>1792: Theology: Mohammad Abdul Wahhab (b. 1703 in Najd, Arabia) was the founder of the fundamentalist orthodox Wahhabi sect. After being expelled from Mecca, he moved to Darriyah in Najd, Arabia, where he is supported by Mohammad ibn Saud. His works include <i>Usul al Iman</i> (Principles of Faith), <i>Usul Salisa</i> (Three Principles), and others (3).</p> <p>1805: Repression: Abdullah ibn Saud debarred nonadherents to the Wahhabi doctrine from making the pilgrimage to Mecca.</p>
1811-1860	<p>1823: Reformist: Shah Abdul Aziz Dehlavi, the son of Shah Waliullah, became the leader of the reform movement in India. He authored <i>Fatawa Aziz</i> and <i>Tafsir i Aziz</i>.</p> <p>1836: Sufism: Ahmad bin Idris was a Sufi Islamic revivalist from Morocco. He advised Muslims to do their own interpretation of Quranic texts rather than to rely on those by the Ulema.</p> <p>1844: <i>Countermovement</i>: <i>Sectarian movement (later Baha'i)</i> started by Bab Sayyid Ali Mohammad.</p> <p>1859: Reformist: Mohammad ibn Ali Sanusi of Mostaganem, Algeria, founded the politico-religious order with numerous followers in Libya and Sudan. This movement was influenced by the Wahhabi thought. He stated that Muslims need not blindly follow the four schools but to resort to Ijtihad. This movement also gave rise to the Mahdist revolt in Sudan who fought against Britain.</p> <p>1852: <i>Countermovement</i>: Tahireh Fátima Baraghani (b. 1820) of Qazvin converted to the Baha'i faith and worked for the emancipation of women, saying that the Baha'i faith had superseded the Islamic Shariah law.</p> <p>1860: Reformist: Apologist: Sir Syed Ahmad Khan through his book <i>The Loyal Mohammedans of India</i> attempted to persuade the British to look more favorably on India's Muslims. Influenced by the current Western scientific circle, he attempted to adapt his reformist agenda by including references to the thoughts of the medieval Muslim philosophers Ibn Sina and Ibn Rushd, but not that of Imam Ghazali (2).</p>
1861-1910	<p>1863: <i>Countermovement</i>: Baha Ullah, a disciple of Babb, proclaimed himself as a manifestation of God's will and founded the Baha'i faith. Most of his followers were in Persia. In 1868, he was exiled by the Ottoman government from Iraq to Acre, Palestine, where he set up his headquarters.</p> <p>1867: Revivalism: Maulana Mohammad Qasim Nanotwi established a madrassa at Deoband that will play an important role in Islamic revivalism in India and the rest of the world.</p>

	<p>1888: Countermovement: Mirza Ghulam Ahmad founded the Ahmadiyya sect in Qadian, India. He proclaimed himself not only to be Mahdi but also an incarnation of Jesus Christ and the Hindu god Vishnu. His declaration was opposed by the mainstream Muslims but was apparently encouraged by the British.</p> <p>1884: Reformist: Jamal ud din Afghani and Mohammad Abduh published the newspaper <i>Urwa al Wuthqa</i> aimed at Islamic revival and against British colonial policies. Mohammad Abduh espouses the rational approach of the Mutazila movement.</p> <p>1890: Reformists: Agha Khan Kirmani and Baqar Bawanti of Iran were followers of Jamal ud din Afghani.</p> <p>1897: Reformist: Jamal ud din Afghani (b. 1838 in Asadabad, Afghanistan) founded a pan-Islamic reformist movement in Cairo in 1871. Widely travelled, he visited Delhi, Mecca, Istanbul, Munich, Moscow, London, and Paris.</p> <p>1908: Reformist: Qassim Amin published the book <i>Tahir ul Mara</i> (Liberation of Women) in Cairo. His theory of equating backwardness of Egypt to systemic repression of women causes furor. He stressed the need for the emancipation of women and the acquisition of their rightful place in Muslim society.</p> <p>1910: Reformist: Zain al-Abidin Magharati of Iran conveyed a devastating critique of Iranian society.</p>
1911-1960	<p>1912: Reformist: Ahmad Dahlan of Indonesia founded Muhammadiyah, a reformist movement.</p> <p>1914: Sufism: Jalal ud din Ali Angha (b. 1849 in Ghazvin, Iran) was regarded as the <i>Qutub</i> (Pole) of the Oveyssi order. His works included <i>Principles of Sufism</i>, <i>Isharat i Hussainia</i> (Lamentations of Hussain), and <i>Hadis i Qudsi</i> (Sacred Sayings) (2).</p> <p>1914: Reformist: Maulana Shibli Naumani in his book <i>Ilm al Kalam</i> described the development of Muslim schools of theology. Disagreeing with Sir Syed Ahmad's approach, he founded an academy, Nudwat al-Ulema, Lucknow, with the goal of integrating traditional and modern learning (2).</p> <p>1927: Reformist: Maulana Mohammad Ilyas founded Tablighi Jamaat in Nizam ud din area of Delhi, a nonmilitant, non-political movement to reinforce the faith of Indian Muslims. This would develop into a worldwide movement (2).</p> <p>1928: Reformist: Syed Amir Ali, a jurist and historian, argued that Muslims should draw upon the reasons of successes of Islam and the Arabs in the past in order to draw a new plan for revival.</p> <p>1928: Reformist: Hasan al-Banna founded Ikhwan ul Muslimun (Muslim Brotherhood) in Egypt aimed at reviving the faith of workers and students. It became an important political and ideological party (2).</p> <p>1930: Reformist: Wallace D. Fard founded the Nation of Islam, the Black Muslim movement in Detroit. He was succeeded by Elijah Mohammad and later by Louis Farrakhan.</p>

	<p>1930-73: Reformist: Taha Hussein of Egypt as a nationalist believed that the values of the Muslim-Arab civilization were diametrically opposed to Egyptian.</p> <p>1934: Sufism: Sheikh Ahmad al-Alawi of Algeria contributed to intellectual Sufism. He worked toward reconciling Islam with modernity. (He led the first prayers in the newly built Paris mosque in 1926).</p> <p>1935: Reformist: Rashid Rida of Syria carried forth the ideas of Mohammad Abduh.</p> <p>1938: Reformist: Philosopher-poet Dr. Sir Mohammad Iqbal (b. 1877 in Sialkot, Pakistan) approved the idea of Muslims learning from the West because in doing so they were simply retrieving knowledge which they so assiduously handed over to the West before Renaissance. He originated the call for the creation of Pakistan, the Muslim majority areas in India (4).</p> <p>1940-80s: Reformist: Maulana Abul Ala Maududi (b. 1903 in Aurangabad, India) was a famous thinker and Islamic revivalist and a prolific writer in a lucid and sophisticated intellectual style. His most famous works are <i>Tafheem ul Quran</i> and <i>Towards Understanding Islam</i> (4).</p> <p>1951: Reformist: Farid Wajdi produced prolific apologetic literature proposing that Islam was a perfect model of civilization and therefore worthy of emulation.</p> <p>1954: Theology: Fiqh: Abdul Razzaq al-Sanhuri wrote a book on sources of law in Fiqh.</p>
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b. Advances in Knowledge: Sciences (Exact) and Technology

Time Line (fifty-year interval)	Achievements and New Ideas																																																																
Summary	<p style="text-align: center;">All Sciences, 611-2000 with Data Smoothing</p> <table border="1"> <caption>Approximate data from the graph</caption> <thead> <tr> <th>Year</th> <th>Exact Sciences</th> <th>Medical Sciences</th> <th>All Sciences</th> </tr> </thead> <tbody> <tr><td>600</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>700</td><td>10</td><td>5</td><td>15</td></tr> <tr><td>800</td><td>25</td><td>15</td><td>30</td></tr> <tr><td>900</td><td>45</td><td>25</td><td>65</td></tr> <tr><td>1000</td><td>25</td><td>20</td><td>40</td></tr> <tr><td>1100</td><td>15</td><td>15</td><td>25</td></tr> <tr><td>1200</td><td>10</td><td>20</td><td>30</td></tr> <tr><td>1300</td><td>30</td><td>30</td><td>45</td></tr> <tr><td>1400</td><td>15</td><td>20</td><td>30</td></tr> <tr><td>1500</td><td>10</td><td>15</td><td>25</td></tr> <tr><td>1600</td><td>10</td><td>10</td><td>15</td></tr> <tr><td>1700</td><td>5</td><td>5</td><td>10</td></tr> <tr><td>1800</td><td>5</td><td>5</td><td>10</td></tr> <tr><td>1900</td><td>5</td><td>5</td><td>10</td></tr> <tr><td>2000</td><td>5</td><td>5</td><td>10</td></tr> </tbody> </table>	Year	Exact Sciences	Medical Sciences	All Sciences	600	0	0	0	700	10	5	15	800	25	15	30	900	45	25	65	1000	25	20	40	1100	15	15	25	1200	10	20	30	1300	30	30	45	1400	15	20	30	1500	10	15	25	1600	10	10	15	1700	5	5	10	1800	5	5	10	1900	5	5	10	2000	5	5	10
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	Details
661-710	
711-760	<p>703: Technology: Egyptian papyrus was exported to the Byzantines who added watermarks with a cross and Christian sentences before reexporting to the Arabs. Umayyad caliph Abdul Malik ordered that papyrus be marked with <i>Qul ho Wallah o Ahad</i> (Say, He alone is God).</p> <p>751: Technology: Paper is manufactured in Samarqand with the help of Chinese technicians after the defeat of Chinese army at Atlakh, Talas, in central Asia.</p> <p>700~: Technology: Baghdad roads are paved with petroleum tar that oozes from natural oil fields.</p> <p>8th Century: Astronomy: Translation of <i>Zij al Shah</i> (King's Astronomical Table), a text in the Pahlavi language.</p>
761-810	<p>771: Astronomy: Calculations of Lunar Tables: Ibrahim Habib al-Fazari of Persian background was at the court of Harun al-Rashid. He along with his son Mohammad al-Fazari and Yaqub bin Tariq computed astronomical tables for the lunar year based on the Indian book <i>Siddhanta</i> (2).</p> <p>787: Navigation: First Arab vessel to enter the Chinese port of Kanfu (Hangchow).</p> <p>796: Astronomy: Yaqub bin Tariq, at the court of Caliph Mansur. He constructed astronomical tables (mainly for predicting the new moon) in his book <i>Zij al Mahlul min as Sindhind</i>. This book was based on the Indian book <i>Siddhanta</i>.</p> <p>800: Technology: First paper mill in Baghdad set up under the minister Yahya Barmaki.</p> <p>800: Navigation: Muslim merchants landed in Canton, China.</p> <p>803: Chemistry: Jaber bin Hayyan al-Tusi designed a still for separating particle solids from liquids. He was the first chemist to produce sulphuric acid and to describe the properties of nitric acid. He served as alchemist at the court of Harun al-Rashid. He was also a personal friend of the sixth imam, Jaafer Sadiq. He authored <i>The Book of Flowers</i> that described chemical experiments in an elegant style. In his book <i>Sundug al Hikmah</i>, he mentioned the properties of nitric acid. His laboratory was rediscovered some two centuries later. He gave expert description of distillation, calcinations, crystallization, sublimation, and reduction (5).</p> <p>806: Astronomy: Mohammad al-Fazari, the son of Ibrahim al-Fazari, built the first astrolabe in the Islamic world. He translated the seventh-century Indian book by Brahmagupta as <i>Zij ala Sin al Arab</i> (Chinese-Arab Table) (2).</p> <p>810~: Astronomy: Yaqub bin Tariq calculated astronomical tables. Teaming with al-Fazari, he translated the Indian astronomical text by Brahmagupta (of seventh century) into Arabic as <i>Zij al Hind al Arab</i> (Sindhind). It is presumed that this translation was instrumental in introducing Indian numeral to the Arabs and thence onto the Western world (2).</p>

	<p>9th Century: Astronomy: Masha Allah (Messahala) used <i>Zij al Shah</i> for his calculations.</p> <p>9th Century: Astronomy: Ahmad al-Nahavandi along with Masha Allah were the two early Muslim astronomers who worked at the Academy of Gondeshapur, Khuzestan, Persia, during the reign of Caliph al-Mansur (2).</p> <p>9th Century: Mathematics and Astronomy: Abu Said al-Darir al-Jurjani from Gorgan, Persia, wrote a treatise on geometry and another on how to draw the meridian (2).</p>
811-860	<p>825~: Geography: Manual written by Hisham al-Kali.</p> <p>830: Geometry: Parallel postulate: Al-Aware.</p> <p>830: Algebra: Ibn Turk: Logical necessities and mixed equations.</p> <p>830: Geometry: The Banu Musa brothers (Ahmad, Hassan, and Mohammad) authored the major text <i>Measurement of Plane and Spherical Figures</i> (2).</p> <p>833: Astronomy: Consolidation of Tables, Zambias, Astrolabe, Etc.: Al-Maun's team.</p> <p>846: Mathematics, Algebra, and Astronomy: Al-Khwarizmi was the founder of modern algebra. The word "algorithm" is named after him. He worked on quadratic equations, numerals, and astronomy. He calculated periodicities of planets using the tabulations in <i>Zij al Shah</i> (5).</p> <p>850~: Geography: Postal Routes: Al-Kindi and al-Sarah developed optimum routing for the distribution of mail (2).</p> <p>860: Technology: Musa bin Shakir and his three sons—Mohammad, Ahmad, and Hassan—jointly wrote a book on mechanics, <i>Book of Artifices</i>. It contained one hundred technical constructions and methods relating to the digging of wells, designing of apparatus for hot and cold water, lifting of weights, and designing of a whole series of mechanical toys and automata (3).</p> <p>860: Trigonometry: Al-Hasid worked in the area of trigonometric functions (2).</p> <p>860: Engineering, Civil, and Astronomy: Al-Farghani (2).</p> <p>9th Century: Technology: Oil fields of Baku, Azerbaijan, produce shiploads of naphtha, later to be used with devastating effect as payload of the siege engines. Used by Saladin during the Crusades.</p> <p>9th Century: Abul Hassan al-Ahwazi authored <i>Al Argiabhad</i> describing planetary movements.</p>
861-910	<p>861: Trigonometry: Spherical Surfaces Calculations: Al-Afghani (Africanus) (2).</p> <p>866: Mathematics: Abu Abdullah al-Mahani of Kerman, Persia. He proposed a solution to the Archimedean problem of dividing a sphere by means of a plane into two segments with a given volumetric ratio. This problem gave rise to the cubic equation $x^3 + c^2 b = a x^2$ also known as al-Mahani's equation. He also worked on the problem of duplicating the cube (4).</p> <p>870: Trigonometry, Technology, Metallurgy, and Chemistry: Al-Kindi produced 107 recipes for distillation of perfumes. He also worked on the measurement of a circle, cryptography, etc. (4).</p> <p>870: Mathematics: Ali Rabban al-Tabari.</p>

873: Technology: **Jaafar ibn Musa bin Shakir** (b. 800) was the eldest of three Banu Musa brothers. (They were from Persia and worked under the Abbasids in Baghdad). He constructed many mechanical devices including musical fountains, musical automata, beam balance, self-trimming lamp, etc. (2).

873~: Trigonometry: Spherical Surfaces Analysis: **Ahmad ibn Musa bin Shaker** (b. 803).

873~: Astronomy: **Al-Hassan ibn Musa bin Shakir** (b. 810).

874: Astronomy: **Ahmad al-Hasib al-Marwazi** of Merv, Persia. He was employed by Caliphs Mamun and Mutasim for predicting eclipses.

886: Astronomy: Tables: **Abu Masher** (Ambulacra, Abumasr) used *Zij al Shah* for astronomical work.

897: Geography: Armenian-born geographer **al-Yaqubi**.

900: Astronomy: **Ibn Sulaiman al-Hashmi** developed mathematical procedures for astronomical tables

900: Algebra: Intermediate Linear Equations: **Abu Kamil** provided a link between the algebra of **al-Khwarizmi** and **al-Karaji**. He wrote about the properties of the equation $X^m * X^n = X^{m+n}$ (Ref: Wiki) (3).

900~: Astronomy: Astrolabe Construction: **Ibn al-Hussain**.

901: Mathematics: **Thabit al-Qurrah** was a mathematician of the first order. He was the noted translator of Greek scientific books and the head of a family that produced many scientists. His son **Sinan** was a noted medical doctor and the head of the al-Adudi Hospital in Baghdad which was also a teaching institution. His grandson **Ibrahim bin Sinan** was a designer of mechanical instruments (5).

In mathematics, **Thabit bin Qurrah's** contributions are in

- parabolic and paraboloid segments
- geometric proof of solutions to quadratic equations
- commentary on Euclid's parallel postulate
- theory of sundials
- discovery of the characteristics of amicable numbers, where the sum of multiplicative factors of X equals the other number Y and vice versa.

Example: Let $s(X)$ denote the sum of the multiplicative factors of integer X. If $s(X) = Y$ and $s(Y) = X$, then X and Y are called amicable numbers, e.g.,

$$s(220) = 1 + 2 + 4 + 5 + 10 + 11 + 20 + 22 + 44 + 55 + 110 = 284$$

$$s(284) = 1 + 2 + 4 + 71 + 142 = 220$$

The next few amicable pairs are 1184, 1210; 2620, 2924; 5020, 5564; 6232, 6368; 10744, 10856; 12285, 14595; 17296, 18416; and 63020, 76084. In AD1636, *Fermat* found the pair 17296, 18416; and in AD1638, *Descartes* found 9363584, 9437056,

	<p>although these results were actually rediscoveries of numbers known to Arab mathematicians. (Ref: http://mathworld.wolfram.com/ThabitibnKurrahRule.html)</p> <p>Thabit ibn Qurrah's rule is a beautiful result dating back to the tenth century. It can be stated as</p> <p>Take $n \geq 2$ and suppose that $h = 3 \cdot 2^{(n)} - 1$, $t = 3 \cdot 2^{(n-1)} - 1$, and $s = 9 \cdot 2^{(2n-1)} - 1$ are all primes, then $(2^n \cdot h \cdot t, 2^n \cdot s)$ are an amicable pair. The h is also called the Thabit ibn Qurrah number.</p> <p>This form was rediscovered by Fermat (1636) and Descartes (1638). It was generalized by Euler (1707-1783). In the early 1600s, Mohammad Baqar Yazdi of Persia (the last major Muslim mathematician) discovered the amicable pair 9,363,584 and 9,437,056. Descartes did the same in 1638.</p> <p>910: Geometry: Ishaq bin Hunayn translated Euclid's <i>Elements</i>.</p>
911-960	<p>920: Trigonometry, Astronomy: Book of Tables: Abu Abdullah al-Battani of Harran, Turkey, was an Arab mathematician. He calculated the solar year to be equal to 365 days, 5 hours, and 46 minutes. His derived trigonometric relationships include (4) $\sec a = \sqrt{1 + \tan^2 a}$</p> <p>930: Astronomy: Al-Razi (Rahzes) was a multidisciplinary scientist. In his book <i>Sirr al Asrar</i> (Book of Secrets), he wrote about naphtha and its distillates, glycerine, caustic soda, alkalis, and soap. He proposed systematic classification of substances into categories (4):</p> <ol style="list-style-type: none"> 1. spirits 2. metals 3. stones 4. vitriol 5. borax 6. salts <p>940: Geometry, Astronomy: Abul Abbas al-Nayziri of Shiraz, Persia, wrote commentaries on Ptolemy and Euclid and compiled astronomical tables.</p> <p>945: Sciences, Classification, Philosophy, and Music: Tarkhan ibn Uzlagh al-Farabi was the first systematic philosopher who contributed in many areas. He worked for the pro-Ismaili Buyid ruler Saif ud Daula of Aleppo. His works include <i>Ihsa al Ulum</i> (Catalogue of Knowledge) (3).</p> <p>Classification of Knowledge:</p> <p>Al-Farabi categorized knowledge and sciences into the following groups (Ref: HPM):</p>

linguistic sciences
 logic
 mathematics (arithmetic, geometry, optics, astronomy, music, statics, mechanics)
 physics
 politics
 jurisprudence
 theology

Ibn Sina (d. 1037) extended this classification. He divided rational sciences (*Ulum al Aqliyya*) into

speculative sciences that are meant for seeking the truth, which include
 eight basic sciences (drawn from Aristotle)
 derivative sciences including medicine, astrology, alchemy, talisman
 mathematics: arithmetic, geometry, astronomy, music, plus ten derived
 mathematical sciences
 metaphysics: prophetic inspiration, eschatology (related to the day of judgment).

practical sciences that are concerned with enhancing the well-being, which include

personal morality
 domestic morality
 politics
 prophetology (*Nabuwwah*)

Ibn Khaldun (d. 1406) in his *Muqaddima* classified sciences as follows:

traditional religious sciences
 Quranic Tafsir (exegesis)
 Quranic readings
 Hadis (tradition of the Prophet)
 jurisprudence
 principles:
 + controversial issues
 + dialectics
 application, e.g., inheritance
 Kalam (speculative theology)
 Tasawwuf (mysticism)
 interpretation of dreams

	<p>philosophical sciences logic physics, including medicine, agriculture, alchemy, talismans, etc. metaphysics mathematics numerical sciences: arithmetic, calculation, algebra, commercial transactions, partition of inheritances, etc. geometric sciences: spherical and conical geometry, surveying, optics, etc. astronomy: astronomical tables, judicial astrology music</p> <p>946: Technology: Design of Mechanical Devices: Ibrahim bin Sinan bin Thabit al-Qurrah.</p> <p>950: Mathematics: Decimal Fractions: Al-Uqlidisi promoted the modern way of computation (2).</p> <p>950: Mathematics, Astronomy: Higher Trigonometric Functions: Al-Battani. Also calculated the ecliptic to be $23^{\circ}25'$ (4).</p> <p>950~: Geometry: Pentagon and Decagon Construction: Al-Kamil (2).</p> <p>956: Science: Al-Masudi was author of <i>Meadows of Time</i> and <i>Meadows of Gold</i>. He also designed a windmill (2).</p> <p>10th Century: Astronomy: Abul Fadl Harawi of Rayy, Persia, worked under the Buyids.</p> <p>10th Century: Technology: Abbas ibn Farnas (b. 888). Mechanics of flight. He made the first attempt at flight gliding off a cliff using wings (Ref: Wiki) (2).</p>
961-1010	<p>971: Mathematics, Astronomy: Abu Jaafer al-Hasan al-Khazin (b. 900 in Khorasan) worked on the number theory and astronomy. His works included <i>Zij al Safaih</i> (Tables for the Astrolabe) described by later astronomers as the best in the field. He worked on Pythagorean triples. He wrote a commentary on Ptolemy's <i>Almagest</i> and proposed a different solar model. He was employed by the Buyid emir of Rayy to measure the obliquity of the ecliptic (3).</p> <p>976: Geography, Exploration: Ibn Hawqah, author of <i>View of the World</i>.</p> <p>982~: Geometry, Mathematics: Abul Fateh al-Isfahani translated the <i>Conics</i> by Apollonius.</p> <p>986: Astronomy: Rahman al-Sufi (Azophi) of Shiraz. He identified the large Magellanic Cloud (for which he travelled to Yemen) more than five hundred years before Fernando de Magellan repeated that in 1519 (2).</p> <p>990: Mathematics: Nazif ibn Yumn al-Qass, a Persian who worked under the Buyid Adud ud Daula.</p> <p>990: Astronomy: Abu Hamid al-Saghani al-Asturlabi was from Merv, Persia. He worked as an instrument maker (including astrolabes) at Sharaf ul Daula's observatory. He worked on the problem of trisecting an angle (3).</p>

990: Mathematics, Engineering: Pascal's Triangle: Abu Bakr al-Karaji or (Karkhi) was one of the most famous Persians who made original contributions (5).

formula for binomial coefficients ${}^n C_m = {}^{(n-1)} C_{(m-1)} + {}^{(n-1)} C_m$

developed the full expansion of $(a + b)^n$

provided proof of the sum of integral cubes

His works included *Al Badi fil Hisab* (Wonders of Arithmetic), *Al Fakhri fil Jabr wal Muqabila* (Glories of Algebra) (Ref: http://www-gap.dcs.st-and.ac.uk/~history/Chronology/900_1100.html).

997: Mathematics, Astronomy, and Trigonometry: Mohammad Abu Wafa al-Buzjani was born in 940 in Neshapur, Persia. He established trigonometric identities including (4)

$$\sin(a + b) = \sin a \cos b + \sin b \cos a, \cos(2a) = 1 - 2 \sin^2(a)$$

He also worked on third-order equations, tangent function calculation, declination of stars, and magic squares.

1000: Geography: Mohammad Shams al-Din al-Muqaddisi (b. 946 in Jerusalem) was a world traveller and author of cultural geography. In his book *Ahsan al Taqsim fil Maarifat fil Aqalim*, he evaluated the best itinerary for travels for acquiring knowledge (2).

1000: Geometry, Astronomy: Abu Sahel ibn Rustam al-Kuhi of Tabaristan, Persia, wrote a treatise on a perfect compass and described the construction of a spherical segment using conic sections (2).

1000: Mathematics, Astronomy: Abu Mahmud al-Khujandi of Rayy, Persia, worked under Buyid emirs. He stated a special case of Fermat's last theorem for $n = 3$. He also built a large sextant in 994. He along with Abu Nasr Mansur and Ibn Wafa may have independently discovered the sine law (3).

1000: Geometry, Astronomy: Abu Hamid al-Saghani worked on the problem of central projection of a sphere from an external point and the design of an astrolabe using conic sections (2).

1000: Physics, Optics: Abu Saad ibn Sahel designed hyperbolic lenses based on calculations related to Snell's law (2).

1009: Astronomy: Ibn Yunus derived tables for reckoning time by the sun. He developed an equation for lunar positioning (2).

1010: Astronomy: Abul Hassan Kushyr ibn Labban of Gilan, Persia, authored *Zij al Jami wal Baligh* (Comprehensive and Mature Tables) regarding planetary motions (2).

10th Century: Geometry: Ibn Omar al-Karabisi did measurement of a torus using infinitesimals (finite elements) (2).

	<p>10th Century: Geography: Geographical Encyclopedia: Ibn Rustah.</p> <p>10th Century: Geography: Abul Hassan al-Masud authored a twenty-four-volume general encyclopedia, <i>Maruruj ul Dhahab</i> (Fields of Gold) (2).</p> <p>10th Century: Technology: Chinese ceramics reproduced in Persia.</p> <p>10th Century: Mathematics: Abul Wafa al-Buzjani (b. 940) used Indian numerals for calculating roots (2).</p> <p>10th to 12th Century: Technology: Al-Istakhari of Persia produced one of the earliest accounts of windmills.</p>
1011-1060	<p>1020: Geometry: Abu Said ibn Mohammad al-Sijzi of Sistan studied the intersections of conic sections and circles. He also described problem-solving strategies for complex issues (resembling the approach of G. Polya [1887-1985] in his book <i>How to Solve It</i> (3).</p> <p>1029: Algebra: Abu Bakr al-Karaji was the first to express monomials, x, x^2, x^3, ... $1/x$, $1/x^2$, $1/x^3$, etc., and state rules for their products. He discovered the binomial theorem. He obtained summation of 3rd power series (4).</p> <p>1030: Trigonometry, Spherical: Abu Nasr ibn Iraq (b. 960) in Gilan, Persia, pioneered the use of sine theorem for spherical triangles (4).</p> $(\sin A) / a = (\sin B) / b = (\sin C) / c$ <p>1037: Astronomy, Mathematics, Practical and Speculative Sciences: Ibn Sina (Avicenna) (4).</p> <p>1040: Geometry, Optics, Mathematics, and Astronomy: Abu Ali al-Hasan ibn Haitham (Alhazen) (b. 965 in Basra) was of Persian origin. Regarded as one of the top-calibre scientists, he rejected Ptolemaic theory of planetary motion and proposed a new theory of vision. He formulated "Alhazen's problem," which involves determining the point of reflection from a surface given the center of the eye and the observed point. The problem is formalized and solved using the method of conic sections (5).</p> <p>He formally stated the billiard problem that involves finding the point on the edge of a circular "billiard" table at which a cue ball at a given point must be aimed in order to carom once off the edge of the table and strike another ball at a second given point. The solution leads to an equation of the form:</p> $H(x^2 - y^2) - 2Kxy + (x^2 + y^2)(hy - kx) = 0.$ <p>Ref: http://mathworld.wolfram.com/AlhazensBilliardProblem.html</p> <p>Ibn Haitham was the first to classify even perfect numbers (equals the sum of its proper divisors, e.g., $[6 = 1 + 2 + 3]$, $[28 = 1 + 2 + 4 + 7 + 14]$, 496, 8128.</p>

	<p>These are of the form $2^{k+1} * (2^k - 1)$ and the first to state Wilson's theorem: If p is prime, then $1 + (p - 1)!$ is divisible by p.</p> <p>1050: Astronomy, Mathematics: Abu Raihan al-Biruni is regarded as the founder of geodesy and <i>one of the top scientists of all time</i>. His contributions were in the fields of astronomical tables, qibla direction finding, longitude and latitude determination, stereographic projection, etc. (5).</p> <p>Technology: Determined specific gravities of materials using a conical instrument, regarded as a precursor to a pycnometer.</p> <p>Geography: Authored <i>Al Athar al Baqiya</i>, describing the calendars of different countries and peoples. Wrote <i>Qanun i Masudi</i>.</p> <p>Geology: Authored a treatise on precious stones.</p> <p>11th Century: Mathematics: Al-Baghdadi (b. 980) studied a variant of Thabit ibn Qurrah's theorem on amicable numbers (Ref: Wiki) (2).</p>
1061-1110	<p>1061: Astronomy, Physics: Ibn Ridwan.</p> <p>1075: Mathematics: Ali ibn Ahmad al-Nasawi of Khorasan, Persia, served under the Buyid emir Majd ud Daula. His works include <i>Al Muqni fil Hisab al Hindi</i> (On Satisfying Hindi Calculations). He designed four number systems of bases other than decimal (3).</p> <p>1080: Geometry: Al-Mutaman al-Hud, the ruler of Zaragoza, formulated a lemma for solving al-Hazen's problem (3).</p> <p>1085: Library: <i>After the capture of Toledo by Alfonso VI of Spain, its library with its priceless collection of books and manuscripts fell into the possession of the Christian forces.</i></p> <p>1090: Trigonometry: Ibn Muad al-Jayyani of Spain worked in the area of spherical triangles (2).</p> <p>1090: Astronomy: Ibn al-Zarqali of Spain developed a graphical method for finding lunar distance. He improved the design of an astrolabe (3).</p> <p>1100: Technology, Physics: Abul Fateh al-Khazini of Khorasan wrote a comprehensive work on mechanics, <i>Kitab al Mizan wal Hikmah</i> (The Balance of Wisdom), dealing with center of gravity, specific weight, density of materials, and the conditions for various types of equilibrium. He proposed the design of a hydrometer (3).</p> <p>1101: Al-Idrisi: <i>Kitab-i-Rujar</i> (Book of Roger II of Sicily), with seventy maps, was the first account of north and western Europe by an Arab. First map of the world and of the globe. It divided the world latitude wise into seven regions, 0-23, 24-35, etc. (2).</p> <p>1110: Sciences: Al-Ghazali wrote about the legal and ethical obligations in scientific studies.</p>

1111-1160	<p>1130: Mathematics, Geometry, Astronomy, and Poetry: Omar Khayyam (b. 1048 in Neshapur) worked in algebra and non-Euclidean geometry. He produced geometric solution of cubic equations using intersecting conic sections (a parabola and a circle). He developed the triangular array format for binomial coefficients. Seljuq Malik Shah invited him to build and work at an observatory. He calculated the length of the solar year to six decimal places (5).</p> <p>1135: Music Theory, Astronomy, and Mathematics: Ibn Bajja, Spain (3)</p> <p>1152: Geometry: Philosophy of Geometric Elements: Abul Barakat (2).</p>
1161-1210	<p>1175: Geometry, Algebra: Al-Samawal contributed to al-Karaji school of Algebra.</p> <p>1185: Astronomy: Abu Bakr ibn Tufail of Granada, Spain, proposed improvements to the Ptolemaic theory (3).</p> <p>1190: Astronomy: Al-Bitruji (Alpetragius) of Spain proposed a new theory of planetary motion (3).</p> <p>1190: Technology: Roger II of Sicily using Arab technology introduced the use of paper in Europe.</p> <p>1198: Astronomy: Ibn Rushd (Averroes) of Spain was a multidisciplinary scholar, a philosopher, a legal expert, and a physician (2).</p> <p>1203: Technology: Water-driven Clock Design: Ibn as Sadi (2).</p> <p>1206: Technology: Product Design and Construction: Al-Jazari (considered a counterpart of Leonardo da Vinci) designed and constructed clocks (water and candle based), a mechanically propelled boat, water valves, automata (birds discharging pellets onto cymbals announcing the time), reciprocating pump, etc. He wrote <i>Kitab fil Maarifat al Hiyal al Hindsiyya</i> (Book on Mechanics and Clocks) (4).</p> <p>1210: Mathematics: Ibn Munim of Maghreb.</p>
1211-1260	<p>1215: Algebra, Astronomy: Sharaf al-Din al-Muzaffar al-Tusi (b.1135) of Persia was a pioneer of algebraic geometry. He contributed to the solution of equations by conic sections, a precursor to the Ruffini-Horner method. He developed the linear astrolabe called the staff of al-Tusi. In his book <i>Al Muadalat</i>, he described solutions of cubic equations and derivative of cubic polynomials (5).</p> <p>1229: Geography: Yaqut, author of biographical and geographical lexicon.</p> <p>1251: Technology: Qaiser constructed irrigation wheels on Orontes River for the prince of Hama (2).</p> <p>13th Century: Astronomy: Masalma al-Magharati, a noted astronomer of Cordoba, Spain.</p> <p>13th Century: Geography: Extent of Earth: Ibn Said of Granada was a guest of Halaku Khan.</p> <p>13th Century: Geography: Dictionary: Yaqut al-Hamawi (a Greek resident of Baghdad).</p> <p>13th Century: Geography: Valuation of Countries: Abul Fida of Egypt.</p>

1261-1310

1261: Geography: Universal Geography and Cosmography: Al-Qazwani (2).

1265: Astronomy, Geometry, and Philosophy: Athir ud din al-Akhbari was a Persian. His works included five books on astronomy and books on logic, *Kitab ul Hedayat* (Book of Guidance) and *Isaghuji fil Mantiq*, which dealt with issues of logic (2).

1266: Astronomy: **Muhyad al-Din al-Urdi** of Syria worked at the Maragha observatory under Nasir ud din Tusi. He was the first at Maragha to develop a non-Ptolemaic model of planetary motion. His name is famous for "al Urdi Lemma" later used by Copernicus (1473-1543) (4).

1270: Compilation of Ibn Haitham's Works: Abi Usaybiah.

1272: Technology and Warfare: The design, construction, and export of advanced siege engine (trebuchet) for Kublai Khan, emperor of China, by Muslim engineers (2).

1274: Philosophy, Astronomy, Mathematics, and Medicine: **Mohammad Nasir ud din al-Tusi** (b. 1201 in Tus, Khorasan) was a polymath, a Shia theologian, and a noted astronomer. He served the Assassins as well as the Mongols. He convinced Halaku Khan to establish an observatory at Maragha, where he computed accurate tables. He invented a geometrical technique to produce linear motion as the sum of two circular motions, called the **Tusi Couple**, which he used to propose an alternative to the flawed Ptolemaic model. He worked on spherical trigonometry, chemistry (conservation of mass), biology (evolution model), and philosophy (Kalam, with Shia point of view). His works include *Zij Ilkhani* (Tables for the Ilkhans), *Tazkira fil Ilm al Haya* (Discourse of Science of Astronomy), and *Tajrid al Aqaid* (Renewal of Beliefs). He proposed improvements to the Ptolemaic model of planetary motion (5).

1277: Technology: Glassmaking process, trade secrets, and workers transferred from the Middle East by the Crusader lord Bohemund of Antioch to the Doge of Venice. This started the rise of the Venetian glassmaking industry (2).

1291: Technology: Warfare: Battery of siege engines used against the Crusader city of Acre.

1300: Arithmetic: Ibn al-Banna of Maghreb wrote a treatise on calculations.

1301: Technology: Ceramics: Al-Kashani, author of a book on ceramics.

1310: Astronomy: Shams ud din al-Samarqandi (b. 1250) wrote on logic, astronomy, and mathematics (2).

13th Century: Trigonometry: Al-Marrakashi developed sundials and other instruments.

13th Century: Chemistry: Al-Jawbari used the distillation process.

13th Century: Technology, Chemistry: Manuscript produced on the manufacture of artificial gemstones, spirits of alum, saltpeter, and salts (hydrochloric acid) (3).

13th Century: Chemistry: Manuscript produced on the properties of sulphuric acid, saltpeter, etc.

1311-1360	<p>1311: Astronomy: Qutub ud din al-Shirazi with his collaborator Nasir ud din Tusi wrote a critique of Ptolemy's <i>Almagest</i> revising his planetary theory and proposing heliocentric theory. He was the first to give a correct explanation for the formation of a rainbow. His works include <i>Nihayat al-Idrak fi Ziyarat al Aflak</i> (Limits of Accomplishment Regarding the Observation of Heavens) and a book titled <i>Durrat al Taj li-Ghurrat al Dubaj</i> (Pearly Crowns) dealing with illuminist Sufism of Suhrawardi (4).</p> <p>1315: Mathematics, Astronomy, and Medicine: Ibn Raqqa was a noted scientist of Spain.</p> <p>1320: Astronomy, Geography: Al-Hussain ibn Baso of Spain was the timekeeper at the Granada Mosque. He designed an astrolabe that was good for all latitudes (2).</p> <p>1320: Mathematics: Kamal ud din al-Farisi, a pupil of Qutub ud din Shirazi, studied the properties of amicable numbers and discovered the pair 17296 and 18416. He worked on the mathematics of double rainbows and the explanation of color reversal. He discussed the principle of camera obscura (4).</p> <p>1321: Mathematics: Ibn al-Banna of Morocco.</p> <p>1331: Astronomy, History: Abul Fida Ismail, sultan of Hamah, Syria, contributed in the areas of cosmography and history.</p> <p>1348: Geography: Historical and geographical encyclopedia with maps by Ibn Fadal Allah al-Umari.</p> <p>1350: Astronomy: Ibn Shatir proposed a new planetary theory, similar to Copernican model (2).</p> <p>14th Century: Cosmology: Treatise by Shams al-Damishqi.</p> <p>14th Century: Cosmology: Treatise by Hafiz Abru.</p>
1361-1410	<p>1382: Navigation: Mohammad ibn Markali wrote a treatise on navigation, ship design, Greek fire, naval warfare, and discipline (2).</p> <p>1400: Trigonometry, Astronomy: Shams al-Din al-Khalili produced tables for direction finding for Mecca. He also worked in spherical trigonometry (2).</p> <p>1406: Sciences: Ibn Khaldun proposed and improved taxonomy (classification) of sciences.</p> <p>1405-17: <i>Flowering of science in the Persian and Turkish lands.</i></p>
1411-1460	<p>1405-17: <i>Flowering of Science in the Persian and Turkish lands.</i></p> <p>1412: Technology: First use of firearms by the Ottomans against Constantinople.</p> <p>1436: Astronomy: Qazi Zadeh al-Rumi of Samarqand worked with Sultan Ulugh Beg al-Kashi at the observatory in Samarqand. He computed $\sin 1^\circ$ to twelve-digit accuracy. He produced <i>Zij i Sultani</i>, a catalogue of positions of 922 stars (3).</p> <p>1437: Mathematics, Astronomy: Giyath ud din Jamshed ibn Masud al-Kashi, from Uzbekistan, worked on various problems including</p> <p style="padding-left: 40px;">series summation of the 4th power decimal fractions</p>

	<p>algorithm for calculating nth roots. calculated pi correctly to sixteen decimal places applied mathematics in architectural design computed and observed solar eclipses for the years 809, 810, and 811</p> <p>In French, the theorem of cosines is named in his honor as "theoreme d'al-Kashi" (5).</p> <p>1449: Astronomy: Ulugh Beg, ruler of Samarqand (b. 1394 in Sultaniya, Persia), grandson of Timur, was a polymath. He was a ruler, a mathematician, and an astronomer who established a sophisticated observatory where large amount of data were collected and processed using in-house tools, e.g., thirty-six-meter radius Fakhri sextant. He along with others compiled the positions of 922 stars in <i>Zij i Sultani</i>. In 1437, using an enormous gnomon (sundial), the length of the sidereal year was computed to 365 days, 6 hours, 10 minutes, 8 seconds with an accuracy of 58 seconds. Due to an internal turmoil (probably due to his lack of attention to the political problems), he was beheaded by his own son Abdul Latif while on his way to Mecca (4).</p> <p>1452: Technology: Ottoman Sultan Mehmed II ordered the building of twenty-five-foot-long supercannons capable of launching a quarter-ton projectile over a mile. The supercannons were built under the supervision of Urban, a Hungarian, for use against Constantinople and the later campaigns in Europe (3).</p> <p>15th Century: Astronomy, Cosmology: Razzaq al-Samarqandi. 15th Century: Geography: Africa: John Leo was a Muslim from Fez. He converted to Christianity after his capture in battle and taken to Italy where he continued his work.</p>
1461-1510	<p>1474: Astronomy: Malik Ali Khushju, pupil of Ulugh Beg. 1499: Technology: First Hebrew printing press set up in Istanbul. (Major non-Muslim achievement: 1487: Navigation: Portuguese: Bartholomew Diaz rounds the Cape and enters the Indian Ocean).</p>
1511-1560	<p>1528: Mathematics, Astronomy: Abdul Ali al-Birjandi of Persia. His works include <i>Risalah fil Ala'at Rasad</i> (Journal on Astronomical Instruments) and <i>Biyan al Tahbub</i> (Amicable Numbers) (2).</p> <p>1551: Technology: Taqi al-Din al-Asadi (b. 1526) became the official astronomer under the Ottoman sultan Selim II. In the book <i>Sublime Methods of Spiritual Machines</i>, he described the design of a steam turbine as a prime mover for a self-rotating spit. This predated the design by Giovanni Branca in 1629 (3).</p> <p>1553: Navigation: Piri Reis of Turkey wrote <i>Kitab al Bahriye</i> (Book of the Oceans) showing the maps of the old and the new worlds (2).</p>

	<p>1558: Mathematics: Zain al-Din al-Amili was a Persian Shia theologian, a poet, and a mathematician.</p> <p>1620: Mathematics, Astronomy: Baha ud Din (Sheikh Bahai) (b. 1547 in Baalbek, Lebanon) moved to Safavids Persia. He wrote about eighty-eight books over a wide area, including mathematics, architecture, religion, history, and poetry. His works included <i>Bahr i Hisab</i> (Ocean of Arithmetic), <i>Khulasat al Hisab wal Jabr wal Muqabila</i> (Summary of Arithmetic and Algebra), and <i>Tashrih al Aflak</i> (Explanation of Heavens) (3).</p> <p>16th Century: Mathematics: Mohammad Baqar Yazdi of Persia is regarded as the last notable Muslim mathematician. He calculated a pair of amicable numbers—9,363,584 and 9,437,056—many years before Descartes' and Euler's contributions to this subject. His important work is <i>Oyoun al Hisab</i> (3).</p>
1561-1610	<p>1562: Astronomy: Syed Ali Reis of Turkey wrote <i>Muhit</i> (The Surrounding Ocean), a book of nautical astronomy.</p> <p>1585: Astronomy: Taki ud din Mehmed of Turkey built an observatory in Tophane, Istanbul. It functioned for one year but was destroyed at the behest of the Ulema of the time (2).</p> <p>1591: Mathematics: Hamza al-Maghrabi authored a book on arithmetic.</p> <p>1605-1658: Engineering: Ali Mardan Khan, the principal civil engineer and architect of the Mughals, provided the technical expertise for the structural design and construction of the finest buildings in India (3).</p>
1611-1660	<p>1627: Technology: Mullah Alam Ilahi Tuni, who worked for the Mughal emperor Jahangir, designed elaborate hydraulics that supplied equal pressure for water fountains spread over different elevations (despite the lack of gradient at many places). His designs were used as gardens at Lahore, Delhi, and Kashmir (2).</p> <p>1632: Technology: Hezarfen (Thousand Sciences) Ahmet Celebi (1609-1640) of Istanbul is regarded as one of the first aviators to have succeeded in flying with artificial wings from the top of Galata Tower and managed to fly over the Bosphorus sea in 1632 (3).</p> <p>1633: Technology: Lagari Hassan Celebi, the brother of Ahmad, launched himself in a manned rocket and landed safely (3).</p> <p>1658: Cosmology: Katib Chelebi (Hajji Khalifa), the Turkish cosmologist and encyclopedist (2).</p>
1661-1710	<p>1684: Geography: Evilya Chelebi, the Turkish author of <i>Seyahat Name</i>, a ten-volume travel book relating to travels in Europe and Near East.</p>

1711-1760	1720-24: Geography: Maps of Marmora and the Black seas printed in Turkey. 1727: Technology: Printing presses that were hitherto considered un-Islamic are set up in Turkey for the first time by Ibrahim Muteferriqa, a Turk of Hungarian origin under Sultan Ahmed III and his vizier Nevshehrili Ibrahim Pasa.
1761-1810	1783-1799: Technology: Tipu Sultan of Mysore (1750-1799) pioneered the war use of rockets at the battle of Seringapatam against the British. They were the first rockets to have a rocket motor casing made of steel with multiple nozzles. The rocket, 50 mm in diameter and 250 mm long, had a range of 900 meters to 1.5 km. There were more than 700 rockets in his arsenal (3). (Note: Treason is cited as one of the main reasons of Tipu Sultan's defeat).
1811-1860	1817: Technology: Printing press set up in Tabriz, Iran. 1821: Technology: First printing press set up in Cairo, Egypt. 1832: Technology: Printing presses set up in Istanbul. 1851: Chemistry: Sake Dean Mohammad (1759-1851) of Bengal is said to be the inventor of shampoo. 1852: <i>Technology: First railway starts functioning in Egypt.</i> 1859: <i>Technology: Construction of Suez Canal starts under Ferdinand de Lesseps.</i> 1860-1947: <i>Developments in India by the British (since these are not indigenous, these are not included in the count):</i> <i>railways and road networks</i> <i>telegraph system</i> <i>power generation</i> <i>agriculture-based industry</i> <i>irrigation canal network</i> <i>educational infrastructure: high schools and colleges at the district level and universities at the provincial level</i>
1861-1910	1869: <i>Technology: Suez Canal opened for traffic.</i> 1900-08: Technology: Construction of the Hejaz railway to Medina and eventually Mecca initiated by the Ottomans as a pan-Islamic project.
1911-1960	1960: Physics: Ali Javan (b. 1926 in Tehran, Iran) coinvented (with William Bennett) the gas laser at MIT. 1960~: Mathematics: Lutfi Zadeh (b. 1921 in Baku, Azerbaijan) invented fuzzy logic that has wide-scale applications in technology, computers, defense, and logic.

c. Advances in Knowledge: Life Sciences and Agriculture

Time Line (fifty-year interval)	Achievements and New Ideas
	Details
661-710	670: Medicine: Nafi ibn al-Haris al-Thaqafi was the first major physician of Islamic times. He got his training at the Academy of Gondeshapur and had the honor of being recommended by the Prophet. He is said to have treated Saad bin Abi Waqas and Caliph Abu Bakr.
	704: Alchemy: Umayyad prince Khalid bin Yazid authored the treatise <i>Paradise of Wisdom</i> containing 2,335 verses (Ref: HPM).
711-760	
761-810	809: Medicine: Medical Text: Isa bin Hakam. 809: Medical Practice: Jurjis bin Bukhtishu, a Christian physician, served Caliph Harun ur Rashid for twenty-three years.
811-860	828: Botany and Zoology: Al-Amai. 850~: Medicine: Rabban al-Tabani translated Indian texts. 850~: Botany: Medicinal Plants: Ad Dinawri. 857: Ophthalmology: Yuhanna al-Musawayah of Baghdad wrote <i>Daghal al Ayn</i> (Alteration of the Eye) (2). 9th Century: Medicine: Abu Bakr al-Khasib (Alubather) was a Persian physician. The translation of his book, done in 1218 in Padua, is titled <i>De Nativitatibus</i> (2).
861-910	860: Veterinary: Treatise on Horsemanship: Ibn Akhi Hizam. 869: Pharmacology: Medicinal Treatment of Diseases: Bin Sahl. 869: Zoology: Diseases of Animals and Their Treatment: Al-Jahiz. 870: Medicine: Abul Hassan Ali ibn Sahel Rabban al-Tabari (b. 838) belonged to a Persian Jewish family, but he converted to Islam under Caliph Mutasim. He was a teacher of Zakariyya al-Razi. He produced the first encyclopedia on medicine. His works include <i>Firdaus al Hikmah</i> (Paradise of Wisdom), <i>Tuhfa al Maluk</i> (Present for Kings), and <i>Hifz al Sehat</i> (Care of Health) (3). 870: Medicine: Jibril ibn Bukhtishu was a Nestorian Christian from Gondeshapur. He was physician to Harun al-Rashid and Mamun, his son. 873: Medicine: Al-Kindi , the famous multidisciplinary scientist, worked at Dar ul Hikmah, Baghdad (3).

	<p>873: Medical Texts: Ophthalmology: Translation and Editing of Greek Texts, Galen and Hippocrates: Hunayn bin Ishaq was a noted physician and surgeon at Baghdad's Darul Hikmah. He was fluent in Greek, Syrian, Arabic, and Persian. He wrote about the treatment of trachoma. The medical works he translated belonged to Hippocrates, Galen, and Dioscorides. He also wrote about one hundred works of his own, including <i>Al Ashr Maqalat fil Ayn</i> (Ten Treatises of the Eye) (Ref: HPM) (5).</p> <p>893~: Medicine: Yuhanna ibn Bukhtishu, son of Jibril was a Nestorian Christian who served as physician to Caliphs Mamun, Wathiq, and Mutawwakil. He became bishop of Mosul in 893 (2).</p> <p>896: Botany: Ibn Dawud Dinawri of Kermanshah was the author of <i>Kitab al Nabat</i> (Book of Plants). He was also an astronomer, a mathematician, and a linguist (2).</p>
	<p>904: Agriculture, Languages: Abu Bakr ibn Ali ibn Wahshiyya of Petra, Jordan, was the author of a manual on Nabatean agriculture. In his book <i>Kitab al Shauq al Mustahem</i>, he offered a translation of Egyptian hieroglyphics (2).</p> <p>9th Century: Medicine: Shapur ibn Sahel was a Christian physician who studied at the Academy of Gondeshapur. He wrote the first book of antidotes, <i>Aqrabdhin</i>, in twenty-two volumes (2).</p>
911-960	<p>925: Medicine: Abu Bakr Mohammad Zakariyya al-Razi (al-Rahzes) was born on 825 in Rayy, Persia. He performed original research in internal medicine, differential diagnostics, pathology, smallpox, kidney stones, and measles. He promoted the use of psychology during healing. According to al-Biruni, Razi wrote fifty-six treatises on medicine, thirty-three on natural philosophy, eight on logic, fourteen on theology, twenty-two on chemistry, and ten on miscellaneous subjects. His main books of medicine included <i>Liber de Pestilentia</i>, <i>Kitab al Tibb al Mansuri</i> and <i>Kitab al Hawi fil Tibb</i> (Ref: HPM) (5).</p> <p>925: Medicine: Ten-volume treatise on medicine written by Mansur bin Ishaq (2).</p> <p>925~: Medicine: Physician's Guide Book, Dietetics, Fevers, Etc.: by Ishaq bin Sulaiman (Isaac Judaeus of Tunisia) (2).</p> <p>932: Medicine: Adudi Teaching Hospital, Baghdad: Sinan bin Thabit al-Qurrah (2).</p> <p>932: Medicine: Ishaq al-Israeli was a physician of Spain.</p> <p>944: Medicine: Ali ibn Abbas al-Majusi was of Persian origin serving at the Buyid court. His works include <i>Kamil al Sinaa wal Tibbiya</i> (Complete Practice of the Medical Art) (2).</p> <p>950~: Botany: Text: Ibn Ashath.</p> <p>10th Century: Pharmacology: Abul Mansur Muwaffaq described medicaments that show real promise.</p>

	<p>10th Century: Medicine: Jurjis bin Jibril from the University of Gondeshapur visited Caliph Mansur.</p> <p>10th Century: Medicine: Abul Hassan ibn Mohammad al-Tabari (not to be confused with Jarir Tabari, the historian, or Zakariyya Tabari, the eminent physician) became the personal physician of the Buyid emir Rukn al-Daula. He authored the ten-volume <i>Kitab al Mualaja al Buqratia</i> (Book on Hippocratic Treatments) (3).</p>
961-1010	<p>961-976: <i>Patron of Science: Caliph al Hakam al Mustansir.</i></p> <p>976: Medicine, Pharmacology: Abu Mansur Muwaffak al-Harawi of Persia worked in Herat. He wrote an extensive pharmacopeia, <i>Kitab al Abniya wa Haqaiq al Adawiyya</i> (Book of Plants and the Basis of Medicines), containing 585 remedies. He knew about the toxicity of compounds of copper and lead (3).</p> <p>980: Obstetrics: Mother and Child Care: Ibn Jazzar (Algazirah of Tunisia) (2).</p> <p>985: Pediatrics and Gynecology: Text: Arbib bin Saad (Cordoba).</p> <p>990: Medicine: Abu Mansur al-Qumri of Khorasan was physician to the Samanid prince al-Mansur. He authored <i>Kitab al Ghina wal Mona</i> (Book of Wealth and Wishes). He was the teacher of Ibn Sina (2).</p> <p>990: Medicine: Abul Kasem of Cordoba compiled an encyclopedia (topics includes surgical removal of stones, obstetrics, etc.) Its Latin translation was widely used in Europe (3).</p> <p>991~: Medicine: Ali Hussain al-Natili of Tabaristan, Persia, translated <i>De Materia</i> of Dioscorides and dedicated it to prince Abu Ali al-Samjuri.</p> <p>994: Pharmacy: Botanical Medicines: Ibn Juljul of Spain provided correct names for the medicinal herbs.</p> <p>994: Diagnostics: Classification of Diseases: Ali bin Abbas al-Majusi authored <i>Kamal al Sinaa</i> that was translated by Constantine the African (2).</p> <p>994: Anatomy and Physiology: Haly Abbas (2).</p> <p>1000: Medicine: Abu Sahel al-Masihi al-Jurjani was a Christian physician from Gorgan, Persia. He was a teacher of Avicenna. His works include a treatise that dealt with measles, plague, pulse, and a book <i>Maa fil Sinaa al Tibbiya</i> (On the Art and Practice of Medicine) (2).</p> <p>1000: Ophthalmology: Text: Ali bin Isa.</p> <p>1000~: Surgery: New Procedure: Ammar al-Mawsali pioneered a procedure for cataract surgery based on suction through a hollow needle. This technique was revived by Blanchet in 1846 (3).</p> <p>1008: Alchemy: Text: Al-Majriti, Spain.</p>
1011-1060	<p>1013: Surgery and Medicine: Encyclopedia: Abbas al-Zahrawi (Albucasis) (b. 963 near Cordoba, Spain) was the leading surgeon of his time and is considered the father of modern surgery. His contributions relate to disease causes and symptoms, mental health, caring of children and the aged, drugs including emetics, cardiac treatment, dietetics, oral hygiene, surgery, cauterization, sutures, antiseptics,</p>

	<p>compound fractures, extraction of arrows, design and construction of two hundred surgical instruments (drawings exist) (Ref: HJ) (5).</p> <p>1015: Pharmacology: Yuhanna ibn Musawayah or Mesue of Baghdad wrote the book <i>De Simplicibus</i> that was translated by J. Dubois in the sixteenth century (2).</p> <p>1030: Medicine: Research Text: Ibn Sina (Avicenna) (b. 980 near Bokhara) wrote the classic <i>Canon of Medicine</i> that was widely used in Europe. Gerard of Carmona and Alpago of Venice translated his monumental and methodical five-volume work <i>Al Qanun fil-Tibb</i> in the twelfth century and again in the sixteenth century. There were more than thirty editions in Latin. Its first volume, <i>Kitab al Kulliyat</i> (Latin Colliget), dealt with (a) anatomy (limbs, muscles, nerves, veins, fluids, etc.), (b) diseases and their causes, (c) hygiene, and (d) treatment of diseases. The second book dealt with medication, the third with disorders of the internal and external limbs, and the fourth with uncommon maladies and fevers. It also touched upon beauty treatment. The fifth volume was devoted to compounded medicaments (Ref: HPM) (5).</p> <p>1039: Ophthalmology, Surgery: Ibn Haitham (Alhazen) (b. 965 in Basra) was a polymath. He made important advances in ophthalmic surgery (4).</p> <p>1050~: Agriculture: Libro de Agriculture: Ibn al-Bassal of Toledo, Spain, wrote a book on agriculture.</p> <p>1051: Pharmacy: Materia Medica: Abu Raihan Mohammad al-Biruni was born in 973 in Khwarizm. He was a true polymath: physician, astronomer, scientist, and traveller. He is considered as one of the greatest scientists of all times (Ref: History of Science, George Sarton). He wrote 146 works on astronomy, astrolabes, chronology, trigonometry, mechanics, history, geography, and philosophy. His book on pharmacy is <i>Kitab al Saydala fil Tibb</i> (The Science of Drugs) (3).</p> <p>1058: Medicine, Psychiatry: Abdullah ibn Bukhtishu (b. 940 in Gondeshapur) was a Nestorian Christian. His famous work is a treatise on lovesickness, <i>Reminder for a Home Bound</i> (2).</p> <p>11th Century: Medicine: Abu Ubayd al-Juzjani of Afghanistan was a famous pupil and a lifetime friend of Avicenna.</p>
1061-1110	<p>1063: Medicine: Ibn Butlan was a Christian physician of Baghdad. His works include <i>Taqwim al Sehat</i> (Calculation of Health). He wrote about the effect of environment, including the use of music during treatment. He also wrote <i>Treatise on Buying Slaves: A Consumer's Guide</i> (2).</p> <p>1067: Medicine: Ali bin Ridwan wrote a commentary on Galen.</p> <p>1068~: Medicine: Mohammad Yusuf al-Ilraqi of Khorasan, Persia, was probably a pupil of Ibn Sina. His works include <i>Kitab al Asbab wal Alamaat</i> (Diagnostics and Indications).</p>

	<p>1068~: Medicine: Ibn Abi Sadiq was from Khorasan, Persia. His works included commentaries on the works of Hippocrates, Galen, Hunayn, and Razi.</p> <p>1068: Medicine, Clinical: Botany: Abul Mutarrif ibn Wafid (Abenguefit in Latin) (b. 997 in Toledo, Spain) wrote <i>Kitab al Adawiyya wal Mufradat</i> that was translated by Gerard of Carmona. He also compiled a pharmacopeia (3).</p> <p>1068: 1070: Anthropology: Said al-Andalusi worked in the field of classification of nations (races).</p> <p>1087: Medicine: Constantine the African (b. 1020) of Carthage was a Greek physician invited to Salerno, Italy, to translate works of Arab physicians into Latin including those by Avicenna and by al-Majusi titled <i>Liber Pantegni</i>. He also worked at the monastery at Mount Cassini (3).</p> <p>1092: Surgery, Ophthalmology: Abu Ruh ibn Mansur al-Jamani of Persia was nicknamed Zarrin Dast (Golden Hand) because of his deftness as an eye surgeon. He worked under the Seljuq Abul Fateh Malik Shah. He wrote <i>Nur al Ayn</i> (Light of Eyes), a treatise on ophthalmology (3).</p> <p>1094: Botany: Al-Bakri was a botanist from Spain.</p> <p>1100: Medicine: Abu Ali Yahya Isa ibn Jizya was a Christian physician who embraced Islam. He wrote a synopsis describing 352 diseases, <i>Taqwim al Abdan fi Tadbir al Insan</i> (Table of Bodies as regards to Their Constitution) (2).</p> <p>1102: Medicine: Said ibn Hibat Ullah was a physician and in Baghdad under Caliph al-Muqtadi.</p>
1111-1160	<p>1121: Medicine: Muiyyad ud din al-Tughrai (b. 1061 in Isfahan) authored <i>Mafatih al Rahma wa Masabih al Hikmah</i> (Secrets of Grace). He served at the Seljuq court. He was charged with apostasy and heresy, declared a Zindiq, and executed (2).</p> <p>1127: Medicine: Ali bin Abbas al-Majusi wrote <i>Kitab Maliki</i> (translated by Stephen of Antioch) (2).</p> <p>1130~: Ophthalmology: Ibn Aslam al-Ghafiqi wrote a guidebook on botany.</p> <p>1150~: Pharmacy: Ibn al-Tirmidh wrote a text on toxicology.</p> <p>1150~: Agriculture: Ibn al-Awwam of Seville authored <i>Kitab al Filaha</i> (Farmer's Manual).</p> <p>1150~: Alchemy: Text: Abu al-Qasim.</p> <p>12th Century: Medicine: Sharaf ud din al-Tiflisi was a physician from Azerbaijan.</p> <p>12th Century: Medicine: Ahmad ibn Farrokh of Herat was the author of the medical encyclopedia <i>Kifayah</i> and a teacher of al-Jurjani (2).</p> <p>12th Century: Medicine: Zain al-Din al-Jurjani of Gorgan, Persia, was the court physician of Khwarizm sultans Ibn Nushtikin and Atsoz and author of medical treatises. He was experienced in diagnosis and treatment of thyroid diseases and goiter (3).</p>

1161-1210	<p>1162: Medicine: Teaching Texts: Abu Marvan ibn Zuhr (Avenzoar) (b. 1091 in Seville, Spain) worked on the treatment of mediastinal abscesses. His book <i>Taysir</i> was translated in 1280 by Paravicinus of Venice. He was a teacher of Ibn Rushd (Averroes) (4).</p> <p>1183: Medicine: Ibn Tufail (b. 1105 in Gaudix, Spain) was the court physician to Almohad emir Abu Yaqub Yusuf. He was taught by Ibn Bajja (Avempace) (3).</p> <p>1184: Medicine, Philosophy, Theology, and Jurisprudence: Ibn Rushd, Averroes, was also a medical practitioner. His book <i>Kulliyat fil Tibb</i> was translated by the Jewish scholar Bonacossa of Padua in 1255 (2).</p> <p>1190: Medicine: Iyad ibn Musa al-Yahsubi was the author <i>Kitab ul Shifa</i> (Book of Health).</p> <p>1197: Alchemy: Ibn Arfa of Fez wrote a text on alchemy.</p> <p>1204: Medicine: Internal Medicine, Materia Medica: Rabbi Musa bin Maymun Moses Maimonides (Rambam) (b. 1135 in Cordoba, Spain) was a noted physician who served Sultan Saladin in Cairo (2).</p> <p>12th Century: Biology: Mohammad ibn Mahmud ibn Ahmad al-Tusi authored <i>Ajaib al Makhlukat</i> (Miracles of the Created Beings) (2).</p>
1211-1260	<p>1222: Medicine: Najib ud din Samarqandi was a prolific medical writer. His famous book was <i>Book of Causes and Symptoms</i>, a detailed manual of therapeutics and pathology (3).</p> <p>1231: Medicine: Text: Latif al-Baghdadi was a physician and naturalist.</p> <p>1250~: Botany: Text: Al-Baytar of Malaga authored <i>Jami al Mufradat</i> (Collection of Samples).</p> <p>1256: Ophthalmology: Abu al-Mahasin wrote a manual on surgery (2).</p> <p>13th Century: Medicine: Amin al-Din Rashid al-Din Vatvat was a Persian physician who wrote a treatise on the proper preparation of food and drink (2).</p>
1261-1310	<p>1270: Medicine: Documentation: Abi Usaybiah compiled a collection of 380 biographies of doctors (2).</p> <p>1286: Medicine: Surgery, Anatomy: Ibn al-Quff worked on the investigation of heart valves and capillaries (3).</p> <p>1288: Medicine: Anatomy, Physiology: Ala ud din Abul Hassan ibn Nafis (b. 1213 in Damascus) performed pioneering work on pulmonary circulation. He studied at Bimaristan al-Noori (Medical College Hospital), Damascus, and worked at the al-Mansouri hospital in Cairo. His works include an encyclopedia, <i>Al Shamil fil Tibb</i>, and a book on ophthalmology. He described the mechanism of breathing and its relation to the nourishment of blood. His work was referenced by William Harvey in 1628 (5).</p> <p>13th Century: Medicine: Shams ud din al-Shahrazuri was from Kurdistan. Besides medical works, he also compiled a biography of scholars.</p>

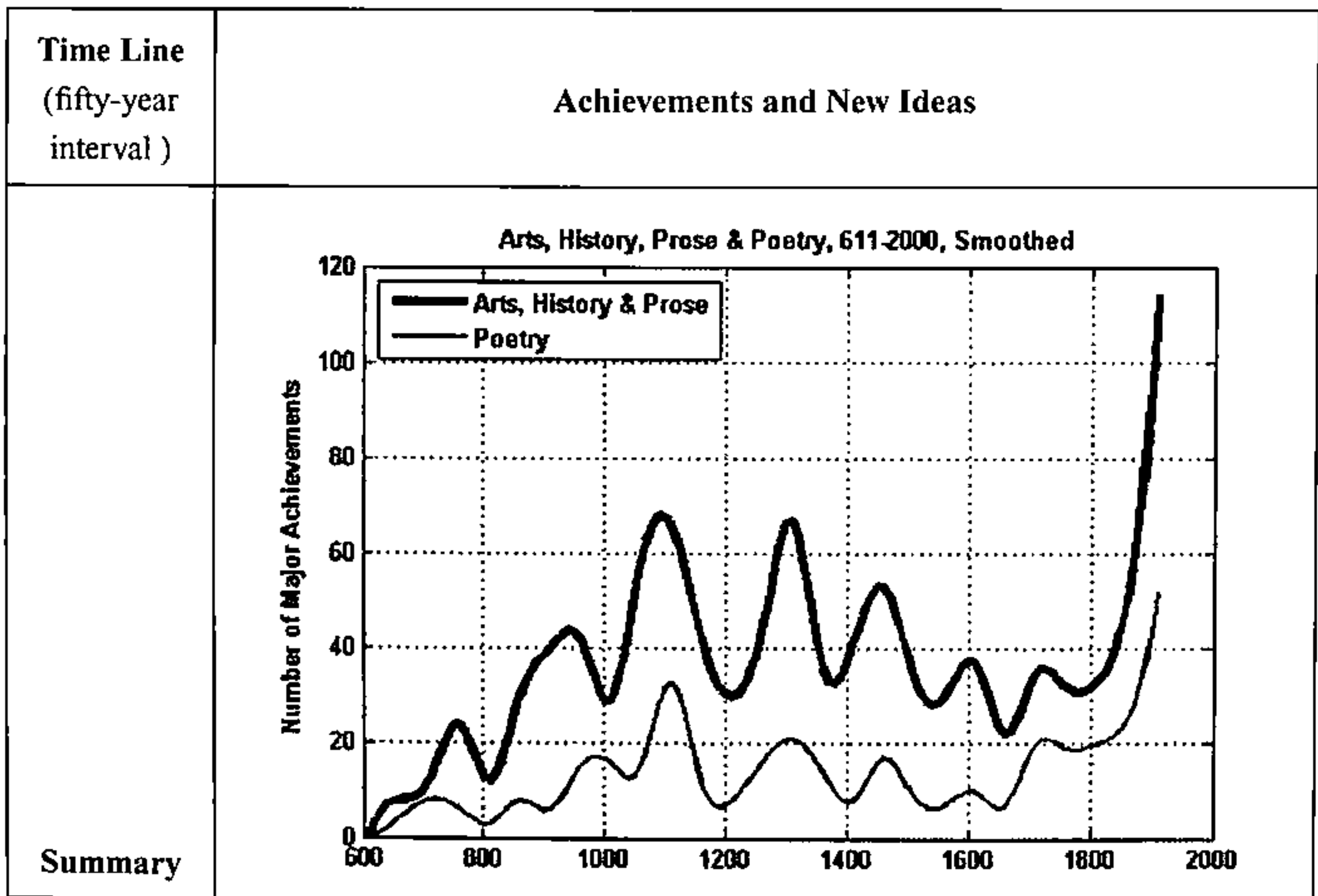
1311-1360	<p>1311: Medicine: Ophthalmology: Mohammad ibn Daniyal practiced in Cairo.</p> <p>1315: Medicine, Mathematics, and Astronomy: Ibrahim ibn Raqqam, a polymath, was from Murcia, Spain (2).</p> <p>1318: Medicine: History: Rashid ud din Fadlallah was of Jewish origin from Hamadan and converted to Islam in 1290. He studied the application of Chinese medicine and was the personal physician of Ilkhanid sultans Aqaba, Arghun, and Ghazan. He also authored the history book <i>Jami al Tawarikh</i>.</p> <p>1330: Medicine: Najm al-Din al-Shirazi of Persia wrote a large compendium, <i>Kitab al Hawi fil al Tadawi</i> (Comprehensive Book on the Art of Curing) (2).</p> <p>1334~: Medicine: Masud ibn Mohammad al-Sijzi wrote the book <i>Haqaiq wal Asrar al Tibb</i> (Truths and Secrets of Medicine) (2).</p> <p>1340: Veterinary: Al-Baytar of Cairo published a veterinary manual.</p> <p>1340~: Medicine: Mohammad al-Amuli of Mazandaran, Persia, authored an encyclopedia (2).</p> <p>1342: Alchemy: Izz al-Din Aydamir al-Jaldaki of Khorasan was the last known great alchemist.</p> <p>1344: Medicine: Mahmud Jaghmini completed <i>Qanunja</i>, an abridged version of Avicenna's <i>Canon</i>.</p> <p>1344~: Medicine: Mahmud ibn Omar Jaghmini of Khwarizm wrote the short commentary <i>Qanunshah</i> on Avicenna's <i>Canon of Medicine</i> that became very popular as a textbook (2).</p> <p>1348: Medicine: Al-Shaquri of Spain wrote about the Black Plague.</p> <p>1348: Ophthalmology: Ibn Akfani of Egypt compiled an encyclopedia, listing the current advances.</p> <p>1350~: Agriculture: Publication of <i>Bughyat ul Fellaheen</i> (Farmer's Manual) along with supporting data.</p> <p>1354: Veterinary, Arts: Al-Mawsali of Damascus produced an illustrated version of the book <i>On the Use of Animals</i>.</p> <p>1357: Medicine: Sadid ud din Masoud Kazerooni of Persia authored commentaries including <i>al-Mughni al Sharha al Mujiz</i> (On the Commentary of Mujiz) (2).</p>
1361-1410	<p>1379: Medicine: Jamal ud din Aqsarai wrote the commentary <i>Hall al Mujiz</i> (Key to Mujiz), another noted physician.</p> <p>1385: Medicine: Mansur ibn Mohammad of Persia authored <i>Kifaya Mujahidiya</i>.</p> <p>1389: Pharmacology: Ishaq ibn Murad of Turkey wrote <i>Adviya al Mufrad</i>, a treatise of medicines.</p> <p>1392~: Medicine: Shah ud din Qivam al-Nagawri was from India. His works include <i>Shifa al Maraz</i> (The Healing of Disease) and <i>Shahab's Medicine</i>.</p> <p>1403: Medicine: Haji Zain al-Attar was the physician to the Muzaffarid Shah Shuja (1358-84). His book <i>Ikhtiyarat i Badi</i> was dedicated to Princess Badi al-Jamal.</p> <p>1405: Veterinary: Ad Damiri of Egypt wrote a manual.</p>

	14th Century: Medicine: Mansur ibn Ilyas of Shiraz, Persia, served at the Timurid court. His works include <i>Tashrih al Badan i Insan</i> (Anatomy of the Human Body).
1411-1460	1424: Medicine: Hacı Pasa wrote <i>Muntahab i Shifa</i> (Selected Treatments) in Turkish. 1425: Medicine: Ibn Serif authored <i>Yadigar</i> (References), a famous work in Turkish (2). 1427~: Medicine: Hussain al-Astarabadi of Golestan, Persia, wrote a commentary on Jaghmini's Qanunshah. 1438: Medicine: Mehmed ibn Mahmud of Turkey wrote on the diseases of the eye, in Turkish. 1444: Medicine: Burhan ud din Kirmani was the physician of Ulugh Beg, the astronomer and governor of Samarqand (1409-49) to whom he dedicated his commentary on the medical treatise of Najib ud din Samarqandi (2).
1461-1510	1468: Medicine: Surgery: Sharaf ud din Sabunjuoglu wrote a book on surgery in Turkish. 1474~: Medicine: Ghiyas ud din Husayni al-Isfahani authored an encyclopedia of natural science, <i>Danish Nama i Jahan</i> (Knowledge about the Universe) (2). 1500: Medicine: Qutub Mohammad wrote an abridgement of Ibn Sina's <i>Qanun</i> (Canon). 1502: Medicine: Baha ud Daula Nurbakhshi worked in Rayy, Persia. He wrote a book <i>Kulliyat al Tajarib</i> (Summary of Experiments) in 1501. 15th Century: Medicine: Abu Qasim Neshapuri of Khorasan wrote two books on prophetic medicine. The copies of these books are dated 1750 and 1792 (2).
1511-1560	1512: Medicine: Mian Bhuwa ibn Khawass Khan of India, translated Sanskrit works into Farsi. 1518~: Medicine: Mohammad ibn Yusuf al-Harawi of Herat compiled medical dictionaries, <i>Jawaher al Lughat</i> (Pearl of Dictionaries) in 1492 and <i>Bahr al Jawaher</i> (River of Pearls) in 1518 (2). 1524: Medicine: Akhi Celebi wrote a book on the diseases of the kidney and of the urinary tract (2). 1526~: Medicine: Sultan Ali Khorasani practiced in Samarqand. He began writing a book on therapeutics, <i>Dastur al Ilaj</i> (Practice of Cure), in 1526 at the prompting of Shah Abu al-Muzaffar. 1546~: Medicine: Psychology: Sayyid Ali Hamadani was a Persian physician. He wrote <i>Risalah Qiyafah</i> (Journal of Extrapolation) regarding judging a person's personality based on his other characteristics (2). 1566: Medicine: Nidai of Istanbul wrote <i>Manifi un Nas</i> in Turkish. 1570: Medicine: Rustam Jurjani of Gorgan, Persia, served at the court of Sultan Burhan I (1508-53) of Deccan, India. His works included a pharmacological materia medica (2).

1561-1610	<p>1609: Medicine: Hakim ibn Kamil al-Jilani of Gilan, Persia, was the court physician of Emperor Akbar. He wrote a commentary on Avicenna's <i>Canon of Medicine</i>.</p> <p>16th Century: Medicine: Imad al-Din ibn Masud al-Shirazi served under the governor of Shirvan. Punished by the governor to remain outdoors during cold nights, he became addicted to opium. Later he wrote a treatise on the properties of opium and its effects. He also wrote about treatment of syphilis using the China root herb (2).</p>
1611-1660	<p>1660~: Medicine: Mirza Ali of Persia wrote a book on therapeutics that is preserved in India.</p> <p>17th Century: Medicine: Mohammad ibn Ilyas Shirazi.</p> <p>17th Century: Medicine: Nur al-Din Qurayshi al-Shirazi is known for his book on Greek and Hindu medicine <i>Zakhira</i> (collection) <i>Dara Shukuhi</i> that he presented around 1650 to Prince Dara Shikoh, son of Emperor Shah Jahan (2).</p> <p>17th Century: Medicine: Sulaiman ibn Hassan was a Persian physician who wrote a book concerning simple and compound remedies.</p>
1661-1710	<p>1679~: Medicine: Mohammad Momin Zaman Tunakabuni of Mazandaran, Persia, wrote a compendium of remedies that he dedicated to Shah Sulaiman (1666-94).</p> <p>1700: Medicine: Ali Abdur Rahman composed a versified medical compendium, <i>Jawaher al Maqal</i>.</p> <p>1700~: Medicine: Mohammad Akbar Muqim Arzani was a Persian physician. His works included <i>Mizan i Tibb</i> (Handbook of Medicine) and a commentary on Avicenna's <i>Canon of Medicine</i> (2)</p> <p>1703: Botany: Progress in horticulture during the Tulip period in Turkey under Sultan Ahmed III.</p> <p>1728~: Medicine: Mohammad Mahdi ibn Ali Naqi, a Persian, authored <i>Zad al Musafirin</i> (Sustainment for Travellers) regarding hygiene and precautions during travelling (2).</p>
1711-1760	<p>1719~: Medicine: Qivam ud din al-Hasani of Qazvin, Persia, authored <i>Khamsah al Qazviniya</i> (The Five Qazvini Works) (2).</p> <p>1747: Medicine: Hakim Alavi Shirazi (b. 1670) in Shiraz became the royal physician to Mughal Bahadur Shah I (1707-12), the son of Aurangzeb. He later served under Nadir Shah Durrani and wrote a book on pharmacopeia.</p> <p>18th Century: Medicine: Zia al-Din Nakhshabi was from Persia who practiced in India. He transcribed into Persian a Sanskrit book on sexual hygiene titled <i>Tuti Nama</i> (Parrot's Narration) (2).</p> <p>18th Century: Medicine: Hakim Mohammad Hadikhan (al-Khorasani al-Shirazi) composed many treatises including a pharmacopeia, <i>Majma al Javami wal Zakhair al Tarakib</i> (Complete Collection of Resources and Recipes) (2).</p>

1761-1810	<p>1805 or 1816: Medicine: Hakim Sharif Khan was a Persian and physician to the Mughal emperors Shah Alam II (1759-1806) and his son Akbar II (1806-37). He introduced aspects of European medicine into his practice (2).</p> <p>18th Century: Medicine: Mohammad Aqa Kermani wrote the treatise <i>Risalah fi Hukum al Miswak</i> (On the Regimen of the Toothbrush). He was in active practice around 1747.</p>
1811-1860	<p>1826~: Medicine: Abu Bakr Esfarayeni of Khorasan, Persia, authored <i>Zubdat al Biyan fi Ilm Abdah</i> (The Best Explanation of the Science of Bodies), copy in the National Library of Medicine, Washington (2).</p> <p>19th Century: Medicine: Hakim Ghulam Imam was a Persian who wrote <i>Ilaj i Ghuraba</i> (Treatment of Poor People).</p> <p>1828~: Medicine: Jalal ud din Isfahani wrote a complete treatise of therapeutics. His other works include <i>Dastur i Jalali</i> (Practice by Jalali) and <i>Hifz i Sehat al Badan al Insaniya</i> (Preventative Health of the Human Body) (2).</p>
1861-1910	No notable indigenous developments.
1911-1960	No notable indigenous developments.

d. Advances in Knowledge: Arts and Literature



	Details
661-710	685: Administration: Umayyad caliph ordered the conversion of Greek and Persian tax registers into Arabic thus promoting its use (3). 701: Poetry: Ghazal: Jamil (2). 710: Poetry: Eulogy: Al-Akhtal, Umayyad court poet (2). 6th to 7th Century: Calligraphy: Kufic script, Kufa.
711-760	719: Poetry: Ghazal: Abi Rabi. 728: Poetry: Eulogy: Al-Farazdaq (2). 731: Poetry: Lyrics in Turkish for Prince Kol and Bilge Khan (2). 732: Poetry: Eulogy: Al-Jarir (2). 735: Poetry: Protest Form: Dhul Rumma (2). 736: History: Ibn al-Khaiyyat (2). 750: Prose: Patronized by Hamid bin Yahya, minister under Umayyad Marwan II.
761-810	757: Prose: <i>Kalila wa Dimna</i> , Animal Tales, by Abdullah ibn Dhadaway (Ibn al-Muqaffa) of Fars, Persia. He was declared a Zindiq (transgressor) for trying to introduce Zoroastrian ideas and executed by Caliph Mansur. He also translated the Farsi history book <i>Khwatay Nama</i> (Book of Kings) into Arabic (3). 767: History: Ibn Ishaq , the first biographer of the Prophet (PBUH) (4). 783: Poetry: Bashshar heralded the rise of Abbasid poetry (2). 786: Language: Grammar: Arabic: Khalil ibn Ahmad was a grammarian and a lexicographer (2). 791: Music: Jalzal of Kufa was a noted musician of the Ud instrument and a teacher of al-Mawsali (d. 850) (2). 793: Language: Grammar: Arabic: Al-Sibawayh (<i>Seb buyeh</i> , "one with apple's scent") of Bayza, Persia, was a pupil of Khalil ibn Ahmad who produced the first systematic Arabic grammar. He is one of the greatest grammarians of Arabic (3). 800: Poetry: Rabiya al-Adawiyya was the famous female Sufi poet (2). 810: Poetry: Abu Nawas wrote romantic love lyrics and wine songs (2). 823: History: Abu Abdullah ibn Omar al-Waqidi was the author of <i>Kitab al Maghazi</i> , a surviving account of the Prophet's military campaigns (4).
811-860	826: Poetry: Abul Atahiya. 839: Music: Scholar: Prince Ibrahim al-Mahdi. 846: Poetry: Abu Tammam, neoclassical Abbasid poet (2). 847~: Painting: Samarra Palace, wall frescos (monarchs, dancers, animals, etc.) (2). 850: Music: Scholar: Al-Mawsali. 857: Music: Abul Hasan ibn Nafeh al-Zaryab (b. 789 in Baghdad) travelled to Spain in 822 and became a music teacher at Cordoba. He formalized the standards for court dress, fashion, multicourse dinner, table manners, etiquettes, and even

	<p>coiffure for men and women. His ideas were eagerly adopted by the European courts and high society (4).</p> <p>858: History: Al-Azraqi wrote <i>Qisas al Anbiyya</i> (Tales of the Prophets).</p>
861-910	<p>846: Poetry: Abu Tammam wrote poetry with an intellectual style (2).</p> <p>868: Prose: Al-Jahiz was the author of more than two hundred works on humor (3).</p> <p>871: History: Abdur Rahman ibn Abdullah. Account of conquests in North Africa and Spain (2).</p> <p>873: Music: Theory: Philosopher: Mathematician: Yaqub ibn Ishaq al-Kindi (b. 801) (2).</p> <p>889: Prose: Ibn Qutayba, a Mutazila scholar, wrote in the Hellenic style.</p> <p>892: History: Al-Yaqubi wrote <i>Qisas al Anbiyya</i> (2).</p> <p>893: History: Mohammad al-Tirmidhi (2).</p> <p>893: History: Al-Baladhuri, a Persian historian at Caliph Mutawakkil's court, wrote <i>Kitab Futuh ul Buldan</i> (Conquests of Lands) and <i>Ansab al Ashraf</i> (Lineage of Nobles) (3).</p> <p>896: Poetry: Ibn al-Rumi (b. 836) wrote introspective and praise poetry (not to be confused with Maulana Jalal ud din Rumi of Konya) (2).</p> <p>896: Poetry: Panegyric (Eulogy): Al-Buhturi wrote odes including the Sassanid <i>Iwan Kisra</i> (The Arch of Ctesiphon) (2).</p> <p>897: History: Al-Yaqubi of Armenia while acknowledging the importance of Jewish and Christian scriptures considered Islam to be the final and superior civilization (2).</p> <p>904: Languages: Abu Bakr ibn Ali ibn Wahshiyya of Petra, Jordan, in his book <i>Kitab al Shauq al Mustahem</i> offered a way to translate Egyptian hieroglyphics (2).</p> <p>9th to 10th Century: Geography: Literary: Ibn Khurramdabih, Ibn Rustah, Qaduma wrote travelogues (3).</p> <p>9th Century: Poetry: Music: Muqaddam ibn Muafa of Spain used the newly developed forms, <i>Muwashshah</i> (the girdled) and <i>Zajal</i> (melody), with erotic themes integrating music, song, and poetry (2).</p>
911-960	<p>912: Music: Notes: Ibn al-Munajjim.</p> <p>912: Geography: Abul Qasim ibn Khoradbeh was a Persian who served as the postmaster general and chief of intelligence for Caliph Mutamid (869-85). He wrote <i>Kitab al Masalik wal Mamalik</i> (Book of Roads and Countries). He described the workings of Rahdanites, the medieval Jewish merchant company that was prominent in Middle East trade at that time (4).</p> <p>923: History: Abi Jaafer ibn Jarir al-Tabari (b. 823 in Amol, Persia) was the author of voluminous Tafsir of the Quran, <i>al Mussama Jami al Bayan fi Tawil al Quran</i>, and the standard text <i>Tarikh al Rusul wa al Maluk</i> (History of the Prophets and the Kings), and the monumental <i>Tarikh i Tabari</i> (5).</p>

	<p>935: Language: Grammar: Ibn Mujahid performed analysis of the Quranic grammar (2).</p> <p>940: Poetry: Persian: Rudaki, the blind poet, is considered the father of Farsi poetry and a literary genius (a Persian Chaucer). He served under the Samanid Nasr II of Bokhara (4).</p> <p>940: Prose: Ibn Abd Rabbihi (Spain).</p> <p>946: History: Suli of the Abbasid court (2).</p> <p>950: Music: Theory: Mathematics, Philosophy: Abul Nasr al-Farabi (b. 872 in Bokhara), a polymath (3).</p> <p>956: History, Geography: Al-Masudi, author of <i>Meadows of Time</i> and <i>Meadows of Gold</i> (3).</p> <p>9th to 10th Century: Persian: Prose: <i>Hazar Afsana</i> (Thousand Fables), now extinct, was the Persian precursor to <i>One Thousand and One Nights</i> of Baghdad (4).</p> <p>10th Century: Poetry: Persian: Rabia Balkhi was a contemporary of Rudaki. She was the first poet who wrote in Dari Persian. She was executed by her brother, the ruler, for having an affair with a Turkish slave, Baktash (2).</p> <p>10th Century: History: <i>Tarikh i Balami</i> (3).</p> <p>10th to 12th Century: Calligraphy: Foliated Kufic script developed in Egypt.</p> <p>10th to 15th Century: Textiles: Moorish factories in production at Almeria, Granada, Malaga, Murcia, and Seville (3).</p>
961-1010	<p>965: Poetry: Classical: Ode: Al-Mutannabi was the greatest Abbasid poet. He wrote <i>Qasida</i> (songs of praise), including the one on the exploits of his patron, the Hamdanid warrior prince Saif al-Daula (5).</p> <p>967: Music: Text with Scores: Fayaz al-Isfahani.</p> <p>967: Poetry: Book of Songs: Al-Faraj al-Isfahani (2).</p> <p>970: Prose: Ibn al-Amid, vizier of the Buyids.</p> <p>974: Prose: Poetry: Persian: Abu al-Balami, the vizier of Mansur I translated Tabari's <i>History of Islam</i> into Farsi (2).</p> <p>977: History: Ibn Qutiya of Spain, author of <i>Chronicle of Visigoth</i>.</p> <p>980: Poetry: Persian: Nationalist poet Abu Mansur Daqiqi at the Samanid court (2).</p> <p>987: History: Ibn Hayyan of Spain, author of <i>Muktabis</i>.</p> <p>987: History: Severus ibn al-Muqaffa, a Coptic Christian, was a historian from Cairo (not to be confused with Abdullah al-Muqaffa [d. 756] of Persia, the author of <i>Kalila wa Dimna</i>) (2).</p> <p>988: Prose: Start of the story cycle <i>One Thousand and One Nights</i>. Ibn Nadim, the author, criticized this as being "vulgar."</p> <p>994: Law: Al-Tanukhi was a judge and a man of letters.</p> <p>995: Biography: Al-Nadim was the biographer of philosopher al-Kindi.</p> <p>998: Language: Literary: Abu Ali al-Hatimi was a student of Mutannabi and a literary critic.</p>

	<p>1002: Language: Grammar: Arabic: Philologist Ibn Jinni systemized Arabic grammar (2).</p> <p>1002: Prose: Abu Bakr Khwarizmi was literary essayist.</p> <p>1007: Prose: Poetry: Badi al-Zaman al-Hamadani wrote social satire in a rhyming style (2).</p> <p>1007: Language: Philologist Ibn Sida of Murcia compiled dictionaries (2).</p> <p>9th to 10th Century: Geography: Literary: Ibn Khurramdabih.</p> <p>9th to 10th Century: Geography: Literary: Qaduma.</p> <p>10th Century: Geography: Literary: Ibn Rustah wrote about his travels to Novgorod, Croatia, etc. (2).</p> <p>10th Century: Geography: Literary: Ai Yaqubi.</p> <p>10th Century: Geography: Travellers' Reports: Volga and Caspian: Ibn Fadlan (2).</p> <p>10th Century: Geography: Travellers' Reports: The book <i>Suleiman the Merchant</i> about a sea voyage to China may have led to the legend of Sinbad the Sailor (2).</p> <p>10th Century: Poetry: Persian: Abu Shakur Balkhi (b. 915) author of <i>Afrin Name</i> (Praise Book) (2).</p> <p>10th Century: Poetry: Persian: Kisai Mirvazi (b. 953) of Merv served at the Samanid court.</p> <p>10th Century: Poetry: Persian: Ayyuqi authored <i>Varqa i Golshah</i> (Page of the Rose King) (2).</p>
1011-1060	<p>1019~: Poetry: Persian: Baba Tahir Uryan of Hamadan composed mystical poems. <i>Kalamat i Qaiser</i> is attributed to him (2).</p> <p>1020: Poetry: Persian: Shahnama: Firdausi authored the national epic (5).</p> <p>1023: Prose: Humanist: Al-Tawhidi of Baghdad wrote <i>Insights and Intrigues</i>, an anthology of anecdotes and aphorisms. His dialectical humor was considered too radical for Ibn Jawzi who labelled him as an archetypical Zindiq (transgressor) (2).</p> <p>1030: History: Miskawayah, on the eclipse of the Abbasids (3).</p> <p>1037: Poetry: Persian: Farrukhi Sistani, one of the brightest lyrical-style poets (2).</p> <p>1037: Music: Theory: Medicine, Philosophy: Ibn Sina (Avicenna) also contributed to music (2).</p> <p>1038: Art: Calligraphy: Abu Mansur al-Thalibi.</p> <p>1039: Poetry: Persian: Abul Qasim Unsari of Balkh wrote in the panegyric (lyrical) style (2).</p> <p>1040: Poetry: Persian: Abu Nazar Asjadi of Merv wrote in the panegyric style.</p> <p>1040: Poetry: Persian: Abu Najm Manuchehri Damghani was a royal poet under the Ghaznavid sultan Masud I.</p> <p>1050: Poetry: Persian: Fakhar ud din Gurgani wrote in the heroic style (2).</p> <p>1056: Poetry: Ismail ibn Naghrilla was the effective ruler of the Taifa kingdom of Granada (1027-56).</p>

	<p>1058: Prose: Essays: Abul Ala al-Maari of Syria was the author of <i>Risalah al Ghufuran</i> (Epistle of Pardon), a series of essays on imaginary interviews of poets residing in hell and heaven. He was also a freethinking philosopher with an Indian strain (3).</p>
<p>1061-1110</p>	<p>1061: History: Geography: Abu Said bin Dhahhak Gardezi wrote <i>Zain ul Akhbar</i>. 1062: History: Al-Qudi was a historian in Cairo, Egypt. 1064: Prose: Psychology, Philosophy, Theology: Mohammad ibn Saeed Ibn Hazm (b. Cordoba, Spain) was a leading proponent of the Zahiri (literal meaning) school of the Quran and Sunnah. His works include <i>Tawq al Hamamah</i> (Dove's Necklace), and <i>Kitab al Muhalla bil Athar</i> (Book Ornamented with Traditions) (3). 1066: Poetry: Ali Asadi, commentator of Firdausi's <i>Shahnama</i>. 1066: Language: Philology: Ibn Sida of Murcia, Spain, compiled a dictionary (2). 1069: Prose: Turkish: Yusuf of Balasaghun wrote <i>Belles' Letters</i> in Turkish including <i>Kutadgu Bilig</i> (Knowledge That Gives Happiness). He presented his work to Bughra Kara Khan, sultan of Kashghar (2). 1070: Prose: Poetry: Ibn Zaydun commented on the political uncertainty in Spain due to its division into petty statelets (Taaifas) (2). 1072: Poetry: Persian: Abu Mahasin Azraqi of Herat, an eminent panegyrist, worked under the Seljuq Tughan Shah, son of Alp Arsalan (2). 1072: Poetry: Persian: Abu Mansur Asadi of Tus, after Firdausi, was the second most important poet of epics. He wrote <i>Garshasp Nama</i>, an epic (3). 1072: Poetry: Persian: Abu Mansur Qatran Adudi of Tabriz was a famous panegyrist (2). 1074: Language: Dictionary: Turkish: Mahmud Kashghari wrote <i>Divan Lughat al Turk</i>. 1076: Art: Calligraphy: Al-Wahidi was a student of Abu Mansur al-Thalibi and author of a magnum opus on Tafsir (2). 1076: History: Ibn Hayyan ibn Khalaf wrote about the times of Abdur Rahman III (912-942) of Spain (2). 1077: History: Abul Fazl Bayhaqi of Khorasan, author of <i>Tarikh i Bayhaqi</i>, was at the court of Mahmud of Ghazni (3). 1088: Prose: Persian: Ismaili Nasir-i-Khusraw Qubadyani of Balkh wrote a <i>Safar Nama</i> (travelogue) about Egypt, India, and Asia. He studied Greek, Hebrew, and the Indian vernaculars. He authored <i>Roshan Nama</i> and <i>Saadat Nama</i>, books of mystical verse (2). 1090: Poetry: Taifa ruler al-Mutamid (1069-1090) of Seville was a renowned poet. His poem about his concubine Rumaykiyya is considered a classic (2). 1090: Prose: Humanities: Ziyarid prince Kay Kavus wrote <i>Qabus Nama</i> (Mirror for the Princes). This was a source of inspiration for the German author Goethe (3). 1090: History: Abdullah bin Bulugin, ruler of Granada, was the author of <i>Kitabul</i></p>

	<p><i>Biyan</i>. He was exiled to Africa by the Almoravid ruler Yusuf bin Tashfin (2).</p> <p>1092: Prose: Persian: Abu Ali Nizam ul Mulk Tusi (b. 1018) wrote <i>Siyasat Nama</i> (Book of Politics). In his childhood in Tus, his schoolmates included Omar Khayyam and Hassan bin Sabah. After becoming the minister to the Seljuq Alp Arsalan, he founded the famous Madrassa Nizamiyah in Baghdad and employed Imam Ghazali as a professor. He helped establish an observatory for Omar Khayyam to do his research and offered a senior position to Hassan bin Sabah, which he refused. Hassan bin Sabah became a warlord and founded the Hashashin (Assassin) sect at the Alamut fort. One of his followers is said to have assassinated Nizam ul Mulk in 1092 (3).</p> <p>1105: Poetry: Ibn Bassam of Sanatven, Spain, wrote <i>Zakhira</i> (Collection) (2).</p> <p>11th Century: Poetry: Persian: Abul Faraj Runi, born in Lahore, was a court poet.</p> <p>11th Century: Textiles: Tiraz Band, Silk and Wool: Fatimid era (910-1171) (2).</p> <p>11th Century: Arts: Pottery: Seljuq-period pottery made in Azerbaijan and Kurdistan (2).</p> <p>11th to 13th Century: Arts: Metalwork made in Persia and Turkey (2).</p> <p>11th Century: Calligraphy: Naskhi script developed in Baghdad.</p> <p>11th Century Onward: Carpet Weaving: Seljuq period (2).</p> <p>11th Century: Geography: Travellers' Reports: Ibn Fadlan, Buzurg bin Shaharyar, al-Balkhi, and Ibn Hawqal (4).</p> <p>11th Century: Geography: Middle East: Nasir-i-Khusrau.</p> <p>11th Century: Geography: Al-Bakri of Spain wrote a book on routes and kingdoms (2).</p>
1111-1160	<p>1111: Prose: Ethics: Imam Ghazali, the outstanding scholar, wrote in a literary style, <i>Kimiya i Saadat</i> (Elixir of Happiness), a treatise on ethics and philosophy (3).</p> <p>1121: Poetry: Persian: Masud Saad Salman was born in Lahore of parents from Hamadan. He was highly learned in Qasida poetry and calligraphy (2).</p> <p>1122: Poetry: Arabic: Al-Hariri wrote prose poem, <i>Maqamaat</i>, of the Seljuq period (2).</p> <p>1125: Poetry: Persian: Emir Abdullah Muezzi of Nisa, Persia, was the poet laureate of Sultan Sanjar and a master of panegyric Qasida (praise) poetry (2).</p> <p>1126: Poetry: Arabic: Al-Tutili (Spain).</p> <p>1131: Poetry: Persian: Ghiyas ud din Omar Khayyam (b. 1048) of Neshapur, Khorasan, was the schoolmate of two significant personalities: Nizam ul Mulk, later minister and initiator of the renowned Madrassa Nizamiyah, Baghdad, and Hassan bin Sabbah, who later became leader of the Hashashin (Assassin) Ismaili sect. (Incidentally, Nizam ul Mulk met his end at the hands of Assassins). The other contemporary of Omar Khayyam was Imam Ghazali with whom he corresponded. Omar Khayyam authored the famous Rubaiyat (quatrains). He was also an eminent mathematician (5).</p>

- 1134: Poetry: Al-Fath of Khaqan wrote the poem "The Golden Necklace" (2).
- 1138: Poetry: Nature poet Ibn Hamdis of Sicily is called the Arab Wordsworth (3).
- 1138: Poetry: Nature poet Ibn Khafaja of Spain wrote the poem "The Gardener" (2).
- 1140: Painting: Palermo, Sicily: Cappella Palatina palace's ceiling painted by the Fatimid rulers showing dancing slave girls, fantastic animals, and flowers painted in the style of the palaces at Samarra (3).
- 1141: Poetry: Persian: Hakim Abul Majd Sanai, a Sufi poet, wrote in the romantic genre (2).
- 1142: Prose: Religion: Robert of Ketton, an English scholar resident in Spain, completed the first Latin translation of the Quran.
- 1143: Poetry: Persian: Shahab ud din Adib Sabir of Tirmiz was employed by Sultan Sanjar (2).
- 1144: Prose: Persian: Fables: *Kalila wa Dimna*, tales of Indian origin by Nasr Allah (2).
- 1144: Language: Grammar: Arabic: Abu Qasim Mahmud ibn Omar **Zamakhshari** of Khorasan was a Mutazila commentator on the Quran and a philologist. He was a prolific writer. His works include the *al Kashshaf* (The Revealer) on Hadis and *Asasul Balaghat dar Lughat* (Essence of Eloquence in Dictionary) (4).
- 1145: Poetry: Ibn Baqi was a poet from Spain.
- 1148: Art: Inlaid Metalwork: Umar bin Fazil, Herat.
- 1148: Poetry: Persian: Shahab ud din Amaq of Bokhara was an eminent panegyrist and elegiac poet at the Khaqani court. He is reputed to be the author of the fable *Yusuf and Zulaikha* (Joseph and Rachel) (3).
- 1149: Prose: Persian: Osman Mukhtari of Ghazni wrote *Shaharyar Nama*, dealing with the struggles of Muslims in Hindu India. He was a fan of Masud Saad Salman (2).
- 1154: Geography: History: Travels: Al-Idrisi wrote *Kitab-i-Rujar* (Book of Roger II) of Sicily. It had seventy maps and was the first account of north and western Europe by an Arab. He also wrote the book *On the Joy of Travels to the Horizon* (3).
- 1157: Poetry: Persian: Abu Nizam Shirvani was a contemporary and rival poet of Khaqani Shirvani (2).
- 1157~: Poetry: Persian: Mahsati Ganjavi was a talented liberated poet of Rubbaiyat (quatrains). She was the poetess laureate for the Seljuq sultans Mahmud II (1118-31) and Sanjar (1131-57). She was said to be a companion of Sultan Sanjar. She also met Omar Khayyam and Nizami (2).
- 1160: Poetry: Persian: Ashraf ud din Hassan Ghaznavi served under Sultan Sanjar.
- 1160: Poetry: Arabic: Ibn Quzman (Cordoba) wrote poetry in the *Zajal* (melody) stanza of Andalusian Arabic (2).
- 1160: History: Ibn al-Qalansi wrote the *Chronicles of Damascus* covering the period from the First Crusade (1097) to 1159 (2).

	<p>12th Century: Persian: Maybudi authored <i>Kashful Asrar</i> (Opening of Secrets), a mystic text of considerable literary merit.</p> <p>12th Century: Prose: Persian: Nizami Aruzi of Samarqand was an elite prose writer. He was famous for his <i>Chahar Maqala</i> (Four Discourses). He worked under Omar Khayyam (2).</p> <p>12th Century: History: Ibn Baydhaq of Spain wrote about the history of the Almoravids (2).</p> <p>12th Century: Prose: Turkish: Adib Ahmad of Yuknek wrote <i>Aybat al Haqaiq</i>, a book on Islamic moral rules in Turkish (2).</p> <p>12th Century: Poetry: Al-Sanawbari was nature poet of the Syrian school.</p> <p>12th Century: Prose: Persian Fables: <i>Bakhtyar Nama</i>, <i>Sikandar Nama</i>, <i>Darbab Nama</i> (2).</p>
1161-1210	<p>1161: Prose: Persian Fables: Sindbad Nama (2).</p> <p>1163: Art: Inlaid Metalwork: Masud bin Ahmad, Herat.</p> <p>1165: Translations into Latin of Arabic and Hebrew texts started in Toledo by Gerard of Cremona (3).</p> <p>1168: History: Usama ibn Munqidh, an Arab-Syrian warrior of Crusades, wrote a book on history (2).</p> <p>1182: Poetry: Persian: Rashid ud din Vatvat of Balkh is famous for <i>Hadaiq al Sihr</i> (Gardens of Magic) (2).</p> <p>1183: Geography: Ibn Bashkuwal of Cordoba, Spain, wrote about the road infrastructure in Spain connecting cities of Cadiz, Cordoba, and Zaragoza and on to Narbonne, France (2).</p> <p>1187: Art: Enamelled pottery art called <i>Minai</i> flourished at Rayy, Persia.</p> <p>1188: History: Syrian prince Usan ibn Mundigh wrote the book <i>Kitabul Itibar</i> on the relations between Franks and Muslims (2).</p> <p>1190: Poetry: Persian: Awhad ud din Anvari of Turkistan served Sultan Sanjar in Khorasan. Besides being one of the masters of panegyric Persian poetry, he was also a famous astronomer. He wrote panegyrics, eulogies, and caustic satire. His elegy "Tears of Khorasan" has great depth and beauty (3).</p> <p>1190: Poetry: Persian: Afzal ud din Ali Najjar Khaqani of Shirvan authored <i>Tuhfa al Iraqayn</i> (Gift from Two Iraqs) and <i>Arch of Madaain</i> expressing his sorrows on witnessing the ruins of the Sassanid capital Ctesiphon (3).</p> <p>1200: Poetry: Qadi al-Fadil served under Sultan Saladin.</p> <p>1200: Prose: Art: Bayad and Riyad, an illustrated love story from Seville, Spain (2).</p> <p>1201: History: Imad al-Din Isfahani wrote on the conquest of Syria and Palestine by Sultan Saladin (2).</p>

	<p>1209: Poetry: Persian: Nizami of Ganja, Azerbaijan, is considered as one of the greatest romantic poets. His works included <i>Makhzan al Asrar</i> (Storehouse of Secrets) and epics <i>Khusraw (Farhad) and Shireen, Layla and Majnu, Haft Peykar</i> (Seven Beauties), and <i>Sikandar Name</i> (3).</p> <p>12th Century: Geography: Travellers' Reports: Sahel ibn Aban, al-Zamakhshari, al-Zuhri of Spain, and al-Mazini of Spain (4).</p> <p>12th Century: History: Ibn Balkhi wrote <i>Faris Nama</i> (Book of Persia), a book that is mentioned in Dekhoda's dictionary (2).</p> <p>12th Century: Paintings: Scenes of Crusades vs. Muslims war painted at Fayyum under the Fatimids (2).</p> <p>12th Century: Textiles: Manufactured under the Fatimids and the Tulunids (2).</p> <p>12th to 13th Century: Painting: Seljuq: Rayy, Kashan, and other places (2).</p> <p>12th to 13th Century: Calligraphy: Thuluth script developed in Persia and Anatolia.</p>
1211-1260	<p>1217: Geography: Ibn Jubayr of Grenada wrote a fascinating account of his land-sea travels to Egypt, Arabia, Baghdad, Syria and Sicily, [Ref: BRJ].</p> <p>1224: History: Abdul Wahid ibn Ali authored the history of the Almohads (2).</p> <p>1224: Art: Painting, Miniature: Materia medica book illustrated with miniature paintings (2).</p> <p>1229: Language: Dictionary: Yaqut, a freed Greek slave, compiled a genealogical and geographical lexicon (2).</p> <p>1230: Poetry: Persian: Farid ud din Attar was a noted poet and prose writer. He wrote the book <i>Tazkira al Auliya</i> (Memorial of Saints) (4).</p> <p>1232: Art: Metalwork: Shuja bin Manna, a noted practitioner from Mosul.</p> <p>1233: History: Ibn Athir, author of <i>Kamil al Tawarikh</i>, a huge book on world history written from the Muslim perspective (3).</p> <p>1235: Poetry: Mystic: Umar ibn al-Farid (Egypt) was a leading mystic poet (2).</p> <p>1242: History: Sadid ud din Aufof Bokhara was a historian at the Ghauri court in Delhi. His works include <i>Lubab Albab</i> (Summary of the Chapter) which he presented to Nasir ud din Qubacha (2).</p> <p>1251: Poetry: Arabic: Ibn Sahl, a noted poet from Spain (2).</p> <p>13th Century: History: Qazi Nasir Beizai wrote <i>Nizam al Tawarikh</i>, a historical account of Fars (2).</p> <p>13th Century: Paintings: Illustrated book, <i>Bayad and Riyadh</i>, was a love story written at Ceuta, Morocco (2).</p> <p>13th Century: Art: Painting, Miniature: <i>Kalila wa Dimna</i> (Animal Stories) (2).</p> <p>13th Century: Art: Painting, Miniature: <i>Maqamaat al Hariri</i>.</p> <p>13th Century: Arts: Metalwork flourished in Persia and Turkey (2).</p>
1261-1310	<p>1266: Teaching: Al-Raqtu taught in Murcia at a college established by the Christian conqueror Alfonso X, the wise.</p>

	<p>1267: History: Abu Shama of Damascus wrote about the times of Nur ud Din and Sultan Saladin. He wrote <i>Kitab al Raudatain</i> (Book of Two Gardens) (2).</p> <p>1273: Poetry: Persian: Jalal ud din Rumi was the world-renowned author of the monumental work of everlasting beauty, <i>Masnavi Maulana Rumi</i> and <i>Rubhainya</i>. He was also a Sufi belonging to the order of Whirling Dervishes (5).</p> <p>1274: Literature: Grammar: Ibn Malik.</p> <p>1274: Literature: History: Poetry: Ibn Said of Spain (2).</p> <p>1277: Poetry: Arabic: Epic poem "Sirah al-Baybars" written that recounted the exploits of Mamluk general Baybars (who inflicted decisive defeats on both the Crusaders and the Mongols) (2).</p> <p>1282: History: Ibn Khallikhan was a noted historian and a compiler of dictionary (3).</p> <p>1283: History: Ala ud din Ata al-Mulk al-Juwayni of Khorasan, Persia, worked under the Mongols. He was present when Halaku Khan stormed the Assassins' stronghold of Alamut. He made great efforts to save the big library. He wrote <i>Tarikh Jahan Kusha</i> (History of the World's Destroyer) about Genghis Khan (3).</p> <p>1285: History: Al-Husayn ibn Muhammad. Ibn Bibi wrote about the history of the Seljuqs of Anatolia (2).</p> <p>1289: Poetry: Persian: Al-Iraqi wrote in the passionate style (2).</p> <p>1291: Music: Systems: Al-Urmawi (2).</p> <p>1292: Poetry: Persian: Saadi Shirazi, author of <i>Gulistan</i> (Rose Garden) and <i>Bostan</i> (Garden), was the master of lyrical and ethical-didactic poetry. He took his pen name from the Salghurid rulers of Fars, Saad I and his son Saad II (1260-1262) (5).</p> <p>1292: Travelogue: <i>Marco Polo</i> recorded about the existence of Muslim in Sumatra.</p> <p>1294: History: <i>Seljuq Namey</i>, a book written by anonymous authors (2).</p> <p>1298: Art: Calligraphy: Yaqut al-Mustasimi is reputed to have copied 1,001 Quranic copies by hand.</p> <p>1302: History: Ibn al-Tiqtaqa wrote about the systems of government and the Muslim dynasties (2).</p> <p>1305: Travelogue: Al-Tijani of Tunis wrote about travels in Maghreb.</p> <p>1308: History: Ibn al-Zubayr of Spain (2).</p> <p>1310: Prose: Religious: Rabghuzi wrote religious prose in Turkish.</p> <p>1310: Poetry: Gulshahri was a noted mystic poet (2).</p> <p>13th Century: Poetry: Turkish: Mythical and epic poems written by the followers of the Bektashi order (2).</p> <p>13th Century: Arts: Metalwork flourished in Persia and Turkey (2).</p>
1311-1360	<p>First Half 14th Century: Literature and Arts: Paintings, Miniature: Decoration of Firdausi's <i>Shah Nama</i> completed at Shiraz (2).</p> <p>1311: Literature, Drama: Ibn Daniyal wrote plays.</p>

- 1317: History: Wassaf joined the court of Mongol ruler Uljeitu (Muslim name: Mohammad Khudabanda), the son of Arghun as a historian (2).
- 1313: History: Ibn Idhari al-Marrakashi wrote about the history of Maghreb and Andalusia (annals up to 997) (2).
- 1315: History: Ibn Abi Zare wrote on the history of the Mirinids of Maghreb (2).
- 1314: Arts: Paintings, Miniature: An illustrated version of *Jami al Tawarikh* completed at Tabriz (2).
- 1318: History: Rashid al-Din Fadlallah Hamadani was a vizier of the Ilkhanid Ghazan and author of *Jami al Tawarikh* (Compendium of History), an enormous volume relating to Muslim, Christian, Indian, Chinese, and Jewish people as well as about the family of Genghis Khan. He was born to a Jewish family, but later he converted to Islam (3).
- 1320: Poetry: Persian: Nizari was a Shia panegyric poet and traveller (2).
- 1320: Poetry: Turkish: **Yunus Emre** is regarded as the greatest poet in Turkish language. He is highly venerated as a genius and a mystic. He combined the poetic styles: *Divan* (classical), *Ashiq* (Folk), and *Tekke* (mystical) (4).
- 1323: History: Aksarayi, a chronicler.
- 1325: Poetry: Persian: Urdu: Pre-Urdu (Hindawi): Music: **Amir Khusrau** of Delhi wrote Indo-Persian poetry in the heroic style. He also wrote in the local dialects and composed original Indian music and ragas (4).
- 1330: Arts: Painting, Miniature: A decorated version of Firdausi's *Shah Nama* produced at Tabriz (2).
- 1331: History: Abul Fida Ismail, sultan of Hamah, Syria, contributed in the areas of cosmography and history. He wrote the book *Memoirs of a Syrian Prince* (2).
- 1332: Prose: Persian: Ashiq Pasha authored *Gharib Name* (Book of the Poor) (2).
- 1332: Encyclopedia: Al-Nuwairi of Cairo compiled an encyclopedia (2).
- 1333: Arts: Painting, Miniature: *Kalila wa Dimna*, an illustrated version produced at Shiraz (2).
- 1337: Arts: Painting: Ghazi Abdur Rahman of Damascus produced an illustrated version of *Maqamaat* (2).
- 1338: Poetry: Persian: Auhad ud din Auhadi of Maragha, Azerbaijan, wrote *Masnavi Jam i Jam* (Mirror of the Universe) (2).
- 1340: Arts: Metalwork flourished under the Mamluk sultan Mohammad bin Qalawun (2).
- 1341: Poetry: Turkish: Qutub of Khwarizm wrote "Ode to the Ruler of Golden Horde" (2).
- 1344: Literature, Comparative Linguistics: Abu Hayyan of Spain was a noted philologist (2).
- 1344: History: Ibn Tadarat of Spain wrote an emotional poem evoking the fall of Algeciras to the Christians (2).
- 1348: Reform: Al-Umari wrote a handbook on administration.

	<p>1348: History: Ibn Osman Shams ud din al-Dhahabi wrote about Muslim dynasties (2).</p> <p>1349: History: Geography: Hamdollah Mostowfi of Qazvin authored <i>Tarikh Gozede</i> (History of Bygones), <i>Nuzhat al Qolub</i> (Beauty of Hearts), etc. (2).</p> <p>1352: Poetry: Persian: Khwaju Kermani was a court poet of the Ilkhan, Muzaffarid, and Jalayirid dynasties (2).</p> <p>1353: Poetry: Turkish: Ode: Khwarizmi wrote <i>Mahabet Name</i> (Book of Love) in Turkish (2).</p> <p>1353: Travelogue: Ibn Batuta (b. 1325) of Tangier started on a worldwide tour, visiting most of Asia, Near East, and Africa.</p> <p>1354: Painting: Veterinary: Al-Mawsali of Damascus produced an illustrated version of the book <i>On the Use of Animals</i> (2).</p> <p>1359~: Poetry: Persian: Hebrew: Maulana Shahin Shirazi of Jewish faith took thirty years to complete <i>Musa Nama</i> (Pentateuch, the five books of Torah, Genesis, Exodus, Leviticus, Numbers, and Deuteronomy) in Persian verse using Hebrew script. He wrote in the style of Firdausi's <i>Shah Nama</i> (3).</p> <p>1360: Prose: Turkish: Mahmud compiled Forty Hadis in Turkish.</p> <p>13th to 14th Century: Arts: Pottery: Kashan and Sultanabad, Persia, were famous producers (2).</p> <p>13th to 14th Century: Arts: Glassmaking flourished at Damascus under the Mamluks.</p> <p>14th Century: Calligraphy: The beautiful Nastaliq script was developed in Persia. This script will be later adopted for Urdu.</p>
1361-1410	<p>1363: Language: Dictionary: Salah ud din Safadi was the author of thirty-three works and a thirty-volume dictionary (2).</p> <p>1370: Poetry: Persian: Ubayd Zakani of Qazvin was a poet and satirist whose works include <i>Risalah Dilkusha</i> (Journal of Beauty), <i>Akhlaq al Ashraf</i> (Ethics of Aristocracy), and his humorous fable <i>Masnavi Mush O Gorbeh</i> (Poem of the Mouse and the Cat) (3).</p> <p>1375: History: Prose: Poetry: Lisan ud din ibn al-Khatib of Fez was the minister of Granada. He wrote the history of North Africa and Sicily and on the political uncertainty in Spain. He was prosecuted by Qadi al-Nubahi of Granada and later executed (2).</p> <p>1375: Travelogue: Ibn Batuta authored <i>Al-Rihala</i>, an account of his twenty-nine-year travels (4).</p> <p>1389: History: Sad al-Din al-Taftazani was a historian and philologist at Timur's court (2).</p> <p>1390: History: Turkish: Al-Ahmadi wrote <i>Iskender Name</i> (Book of Alexander) in verse (2).</p> <p>1390: Poetry: Persian Hafiz of Shiraz was a master of Ghazal and beautiful lyrical poetry (5).</p>

	<p>1396: Poetry: Ibn Zamark of Alhambra. His poetry decorates the palace walls of Alhambra palace. He was prosecuted and later executed (2).</p> <p>1406: Philosophy: History: Sociology: Political Science: Ibn Khaldun, statesman and jurist, is considered as the originator of system of history as political science. His most famous work is <i>Muqaddima</i>. He interviewed Timur in person during the siege of Damascus (5).</p> <p>1404-47: Arts: Painting, Miniature: Sultan Shah Rukh of Herat patronized the illustration of <i>Shah Nama</i> and <i>Kalila wa Dimna</i> (2).</p> <p>1405-17: Painting: Continued to flourish in Persia and Turkey (2).</p> <p>1409: Poetry: Turkish: Sulaiman Chelebi of Bursa wrote <i>Mawlid</i>, a classical religious Masnavi (2).</p> <p>14th Century: Prose: Historical: Rashid al-Din.</p> <p>14th Century: Poetry: Turkish ruler Burhan ud Din delved in poetry.</p> <p>14th Century: Poetry: Mahmud Shabistari.</p>
1411-1460	<p>13th to 14th Century: Arts, Pottery: Blue white pottery was developed in Persia (contrary to the perception, Persia and not China is the probable origin of this technique. Cobalt ore used in such pottery is extracted in Persia and exported to China [Ref: MC]) (2).</p> <p>1405-17: Painting: Continued to flourish in Persia and Turkey (2).</p> <p>1413: Philologist Ali al-Jurjani was employed at Timur's court.</p> <p>1418: Reform: Administration: History: Al-Qalqashqandi, chancellery official, author of an encyclopedia on administration. He wrote about the history of Syria under the Mamluks (2).</p> <p>1418: Poetry: Turkish: Nasimi wrote in mystical genre in fluent style in Turkish.</p> <p>1430: History: Geography: Hafiz-i-Abri was a Timurid historian and a much-travelled geographer (2).</p> <p>1442: History: Al-Maqrizi of Egypt wrote about the history of the Mamluks (2).</p> <p>1448: Poetry: Persian: Fattahi wrote the poem <i>Dastur i Ushshaq</i> (Ways of Lovers) that parallels the style of <i>Roman de la Rose</i> (2).</p> <p>1449: Poetry: Turkish: Yazijoghlu Mehmed Bijan wrote the mystical poem <i>Muhammadiyah</i> (2).</p> <p>1404-1447: Calligraphy: New styles of scripts—Nastaliq, Diwani, and Dashti—developed in Herat during the Timurid period (2).</p> <p>1449~: Poetry: Turkish: Sakkari lived at Ulugh Beg's court.</p> <p>1450: History: Ibn Arabshah wrote about the history of Timur (2).</p> <p>1451: History: Al-Ayni of Cairo wrote about the Mamluks.</p> <p>1462: Poetry: Turkish: Lutf of Herat authored Divans and Masnavi in Turkish (2).</p> <p>15th Century: Arts: Painting, Miniature: A decorated version of Firdausi's <i>Shah Nama</i> was completed (2).</p> <p>15th Century: Bookbinding: High-quality decorated leather bookbinding produced under the Timurid period.</p>

	<p>15th Century: Arts: Pottery: Gold and ruby lustre Moorish pottery was produced in Paterna, Malaga, and Manisa in Spain (2).</p> <p>15th Century~: Arts: Carpet making flourished under the Mamluks (2).</p> <p>15th Century: Carpets with animal designs were produced in Turkey (depicted in European art, e.g., painting by the Dutch painter Holbein) (2).</p> <p>15th Century: Arts: High-quality carpet weaving continued in Tabriz, Isfahan, Yazd, and Kirman (2).</p> <p>15th Century: Art: Ibn al-Rani wrote about the concept of an "ideal" woman in art (2).</p>
1461-1510	<p>1463: Poetry: Ode: Poet Lutfi is employed at Ulugh Beg's court.</p> <p>1464: Law: Enveri, author of <i>Dastur Name</i> (Book of Constitution) in Turkish (2).</p> <p>1468: History: Khalil ibn Shahin al-Zahiri wrote a history book about Mamluk sultans, <i>Zubdat Kashf al Mamalik</i> (2).</p> <p>1469: Arts: Painting, Miniature: Behzad, the greatest painter of Islamic art, was sponsored by Husayn Bayqara, the Timurid sultan. He illustrated the Saadi's <i>Bostan</i> and Nizami's <i>Khamsa</i>. Beautiful depiction of battle scenes, architectural elements, and the human form (5).</p> <p>1470: History: Ibn Taghribirdi wrote the history of Egypt. His other works included <i>Invasion of Syria by Tamerlane</i>, <i>War against Franks and Attack on Cyprus and Rhodes</i> (1444). In his book <i>Nujum al Zahira</i> (Visible Stars), he mentioned that the Umayyad caliph Abdul Malik (685-705) had the intention of turning the qibla back from Mecca to Jerusalem (Ref: HPM) (4).</p> <p>1480: History: Ashiq Pashazadeh, a Persian historian (2).</p> <p>1481-1512: Ottomans: Administration: Law: <i>Al Majalla al Ahkam al Adaliyyah</i> (The Ottoman Courts Manual [Hanafi], sixteen books—Sale, Hire, Debt, etc.) (http://www.iiu.edu.my/deed/lawbase/al_majalle) during the reign of Sultan Bayazid II (2).</p> <p>1490: Literature, Poetry: Persian: Jami of Herat, the great Sufi and poet of Herat, wrote heroic sagas and mystical poetry (3).</p> <p>1497: History: Darsun Bey authored <i>Tarikh Abul Fateh</i>.</p> <p>1498: History: Mirkwand of Timur's court wrote a seven-volume universal history (2).</p> <p>1501: Prose: Poetry: Persian: Idris Bitlesi, author of <i>Hasht Bihisht</i> (Paradise Eight) (2).</p> <p>1501: Poetry: Turkish: Persian: Painting, Miniature: Nizam ud din Ali Sher Navai (the Weeper) of Herat was the vizier and poet at Timur's and Hussain Bayqara's courts. His works include <i>Majalis al Nafais</i> (Gatherings of the Sophisticated), biographies of Turkish poets, and <i>Muhakamat al Lughatain</i> (Rules of Dictionaries) comparing Turkish with Persian languages. Navai wrote in Turkish, Persian, Arabic, and even Hindi. Other works included</p>

	<p><i>Gharaib al Sighar</i> (Wonders of Childhood), <i>Navadir al Shabab</i> (Witticisms of Youth), <i>Badai al Wasat</i> (Marvels of the Middle Age), and <i>Fawaid al Kibar</i> (Benefits of the Old Age).</p> <p>Under Sultan Shah Rukh, he also decorated the book <i>Kalila was Dimna</i> (4).</p> <p>1503: Poetry: Urdu: Mystic: Kutuban of India wrote <i>Marigvati</i>.</p> <p>1504: Poetry: Persian: Kashifi of Herat was a preacher and author of edifying prose and poetry (2).</p> <p>1504: Poetry: Urdu: Sheikh Baha ud din Bajan, Gujarat.</p> <p>1505: History: Literature: Jalal ud din Suyuti of Egypt was a famous historian and philologist (4).</p> <p>1506: Literature: Patron of Arts: Ruler: Timurid Sultan Hussain Bayqara was the patron of the poets Jami, Navai, Mirkwand, and the painter Behzad (2).</p> <p>1509: Poetry: Turkish: Nejati brought an original style to the Divan poetry (2).</p> <p>15th Century: Calligraphy, Painting: Developments in calligraphy and painting made under Sultan Mehmed the Conqueror. He invited Italian painters to come to Turkey and sent Turkish artists including Naqqash Sinan Bey to Italy for training (3).</p> <p>15th Century: Arts: High-quality carpet weaving in Tabriz, Isfahan, Yazd, Kirman, and Kashan (2).</p> <p>15th Century: Poetry: Turkish: Shaikhi wrote <i>Masnavi</i> on the theme of Shireen and Farhad (2).</p> <p>15th Century: Prose: Turkish: Dede Korkut wrote Quranic Tafsir in the popular style (2).</p> <p>15th Century: Poetry: Turkish: Tekke (mystical) style poet, Kaygusuz.</p> <p>15th Century: Poetry: Turkish: Tekke (mystical) style poet, Pir Sultan Abdal.</p>
1511-1560	<p>1519: Poetry: Persian: Umidi, a panegyrist at Shah Ismail's court.</p> <p>1525: Pottery: Decorated Iznik pottery, white style.</p> <p>1528: Poetry: Urdu: Syed Ashraf Biyabani (b. 1459), Ahmad Nagar.</p> <p>1530: Prose: Memoirs: Turkish: Zahir ud din Babar (1483-1530) was the first Mughal king and author of <i>Babar-name</i> and <i>Diwan i Babar</i> written in a style combining Turkish, Persian, and Hindi (Urdu) (2).</p> <p>1531: History: <i>Tawarikh Ale Osman</i> (History of Osman's Progeny) in Turkish by Kemal Pasa Zadeh, the Sheikh al Islam of Sultan Selim I (2).</p> <p>1534: History: Matrakci Nusuh of Turkey wrote about the campaign (1533-34) of Sulaiman I to Iraq (2).</p> <p>1539: Arts: Finest style Ardabil carpet (now in the Victoria and Albert Museum, London).</p>

	<p>1540: Poetry: Urdu: Malik Mohammad Jaisa of India wrote the poem "Padmavat."</p> <p>1545: Poetry: Urdu: Hindi: Mahajan of India wrote the poem "Madhumalah."</p> <p>1549: Art: Lamp for the Dome of the Rock, Jerusalem, made at Iznik (now in the British Museum).</p> <p>1550: Prose: Urdu: <i>Miraj ul Ashiqeen</i> (Zenith of Lovers), the first prose in Urdu by Syed Mohammad Gesudaraz (2).</p> <p>1551: Poetry: Sindhi: Qazi Qadan of India.</p> <p>1553: Biography: Turkish: Ahmad Hussain Effendi wrote <i>Shakayik i Numai</i>, a biography of writers (2).</p> <p>1555: Pottery: Iznik pottery, cobalt blue and turquoise green styles.</p> <p>1556: Poetry: Turkish: <i>Masnavi</i> on the theme of <i>Layla and Majnu</i> by Fuzuli (2).</p> <p>1557: Prose: Turkish: <i>Mirat ul Mamalik</i> (Mirror of Countries), a travel compendium by the admiral Sidi Ali Reis in central Asia and India (2).</p> <p>1558: Poetry: Zain al-Din Al-Amili, the Persian Shia theologian, mathematician, and poet (2).</p> <p>1560: History: Osman wrote <i>Huner Name</i>, a two-volume history of the Ottomans (2).</p> <p>16th Century: Arts: Carpet weaving in Persian cities, Tabriz, Isfahan, Yazd, Kirman, Kashan, etc. (2).</p> <p>16th Century: Poetry: Turkish: Folk-style poet Karajaoghlan.</p> <p>16th Century: History: <i>Tajal Tawarikh</i> (Display of History) in Turkish by Saad al-Din, a leading Sheikh al Islam (2).</p> <p>16th Century: Paintings, Miniature: Mir Syed Ali, a Persian and author of <i>Hamza Nama</i>, was invited by Emperor Humayun to work for him and start the Mughal school of painting (2).</p>
1561-1610	<p>1562: Poetry: Urdu: Shah Miranji Shams ul Ushaq (b. 1498), Deccan.</p> <p>1563: Politics: Lutfi Pasa of Turkey wrote <i>Asaf Nama</i> relating to political morality (2).</p> <p>1566: History: Geographer and historian Matrakci narrated the Persian campaign of Sultan Sulaiman (2).</p> <p>1568: History: Feridun Pasa gave an account of the Szigetvar campaign and Sultan Sulaiman's death (2).</p> <p>1583: Poetry: Persian: Wahshi Baqfi of Yazd wrote Qasida (praises) for Shia saints.</p> <p>1588: Poetry: Persian: Muhtasham of Kashan, the great Safavid poet, wrote about the martyrdom of the imams (2).</p> <p>1599: Poetry: Urdu: Shah Burhan ud din Janam (b. 1554), Deccan.</p> <p>1599: History: Mustafa Ali and Mustafa Selaniki chronicled about the current events (2).</p> <p>1599: History: Sheikh al Islam of Turkey wrote <i>Taj al Tawarikh</i> (The Crown of History) (2).</p>

	<p>1600: Poetry: Turkish: Baqi, the foremost poet of classical lyrical style, wrote about the times of Sultan Sulaiman, the Magnificent (2).</p> <p>1600: Prose: Turkish: Selaniki wrote prose in a vivid style.</p> <p>1600: Prose: Turkish: Gelibolulu Ali, vivid prose style.</p> <p>1609: Prose: Poetry: <i>Epoch of rise of Urdu literature.</i></p> <p>1610: Arts: Tile Work: Iznik.</p> <p>16th Century: Prose: Turkish: Sinan Pasa wrote rhymed prose with symmetry.</p> <p>16th Century: Paintings, Miniature: Abdus Samad of India developed the art of Mughal painting.</p> <p>16th Century: Paintings, Miniature: Manohar and Govardhan contributed to Mughal painting (2).</p> <p>16th Century: Arts: Carpet weaving in Persian cities, Tabriz, Isfahan, Yazd, Kirman, Kashan, etc. (2).</p> <p>16th Century: Arts: Textiles: Persian brocades, velvets, and embroideries (2).</p> <p>16th Century: Arts: Metalwork and Pottery: In Persia under the Safavids (2).</p>
1611-1660	<p>1625: Poetry: Urdu: Muhammad Qutub Shah, the ruler of Golconda (1611-1625), wrote in the Deccan style.</p> <p>1628: Prose: Turkish: Veysi, author of biography of the Prophet (2).</p> <p>1630: Politics: Qoci Beg of Turkey wrote <i>Risalah</i>, a political discourse that inspired the reforms of Sultan Murad IV (2).</p> <p>1633: Poetry: Urdu: Sheikh Hasan Shauqi, Ahmad Nagar.</p> <p>1635: Prose: Urdu: "Sab Ras" (Nectar), an allegorical poetry by Mullah Asad Ullah Wajahi of Golconda.</p> <p>1635: Prose: Turkish: Nergisi wrote in a new style <i>Khamsa</i> (2).</p> <p>1635: Poetry: Turkish: Nafi was the greatest representative of Ottoman Divan style, which was influenced by the new Indo-Persian floral style, <i>Sabk i Hindi</i> (Lesson of India). He also wrote satire and was executed for indiscretion as some of his works were considered too virulent (3).</p> <p>1650: Poetry: Urdu: Nusrati gave classical maturity to Urdu Ghazal (2).</p> <p>1650: History: Ibrahim Pechevi, was a Turk of Hungarian origin who used western works in his history book <i>Tarih</i> (1635). He is quoted to have said, "The fetid and nauseating smoke of tobacco was brought in the year 1009 (AH) by the English infidels . . . Many, even of the great Ulema (Islamic clergy) and the mighty, fell into this addiction" (2).</p> <p>1655: Poetry: Urdu: Ibn Nishati, Golconda.</p> <p>1658: History: Katib Chelebi (Khalifa Haji), a progressive thinker and author of Ottoman history book <i>Fezleke</i> and proposals for the reform of the empire (2).</p> <p>1658: Poetry: Persian: Jalil i Asir, known as the drunken poet.</p> <p>1660: Geography: Travels: <i>Seyahat Name</i>, a ten-volume book of travels in Europe by Evilya Chelebi (2).</p>

	<p>1660: Arts: Tile Work: Iznik, Turkey.</p> <p>17th Century: Pottery: The new centers developed at Kutahya and Chanakkale, Turkey (2).</p> <p>17th Century: Porcelain: Manufactured in Turkey stopped due to the imports of cheap mass-produced European ware.</p> <p>17th Century: Arts: Manuscripts: The Topkapi Sarayi Museum presently contains more than ten thousand illustrated works (3).</p> <p>17th Century: Arts: Carpet weaving in Persian cities, Tabriz, Isfahan, Yazd, Kirman, Kashan, etc. (2).</p> <p>17th Century: Arts: Textiles: Persian brocades, velvets, and embroideries (2).</p> <p>17th Century: Arts: Metalwork and Pottery: In Persia under the Safavids (2).</p>
1661-1710	<p>1663: Prose: Turkish: Genealogy and historical events, <i>Shejere Terakime</i> and <i>Shajarat al Atrak</i>, by the sultan of Khiva, Abul Ghazi Bahadur Khan from Persian and Mongolian sources (2).</p> <p>1666: Poetry: Turkish: Naili, originator of a sophisticated style (2).</p> <p>1670: Painting: Ali Quli Jabbadar, Isfahan, painted the Safavid Shah Sulaiman.</p> <p>1670: Prose: Urdu: Hazrat Sharaf ud din Yahya Muneri, Bihar, wrote <i>Seedha Rasta</i> (The Straight Path) the first manuscript in Urdu (2).</p> <p>1672: Poetry: Urdu: Abdullah Qutub Shah, the ruler of Golconda (1625-1672).</p> <p>1677: Biography: History: Abu Abbas al-Maqqari wrote a biography of Lisan ibn Khatib.</p> <p>1678: Poetry: Persian: Saib of Persia, a talented poet (2).</p> <p>1700: Poetry: Urdu: Afzal Panipati, Delhi.</p> <p>1700: Arts: Tile Work: Iznik. Use of lively red pigment.</p> <p>1702: Poetry: Persian: Princess Zebun Nisa Makhfi (the Hidden) was the talented daughter of Emperor Aurangzeb. She spent all her life in literary matters and did not marry. Her works include <i>Monis Ruh</i> (Friend of the Spirit) and <i>Zeb al Tafasir</i>. She was influenced by the style of Hafez.</p> <p>1703-30: Arts: Sultan Ahmad III's rule is known as the Tulip Period during which he sponsored works of art and culture including the holding of the annual tulip festival (2).</p> <p>17th Century: Arts: Carpet weaving in Persian cities, Tabriz, Isfahan, Yazd, Kirman, Kashan, etc. (2).</p> <p>17th Century: Arts: Textiles: Persian brocades, velvets, and embroideries (2).</p> <p>17th Century: Arts: Metalwork and Pottery: In Persia under the Safavids (2).</p>
1711-1760	<p>1712: Poetry: Turkish: Nabi wrote symbolic poetry in the Persian style.</p> <p>1713: Poetry: Urdu: Nawas Sadar ud din Muhammad Khan Fayez (b. 1690 in Delhi).</p> <p>1716: History: Mustafa Naima of Turkey wrote history of the period 1591-1659 (2).</p> <p>1716: Prose: Turkish: Naima, master of the vivid prose style.</p>

	<p>1720: Literature, Poetry: Persian: Mirza Abdul Qadir Bedil was born near Patna, India, in 1642 of a family from Badakhshan. A poet of Ghazal and Rubbairiyat, his works included <i>Telism Hairat</i> (Magic of Surprise), <i>Chahar Unsar</i> (Four Elements), etc. (2).</p> <p>1722: History: Mehmed Rashid of Turkey wrote history of the period 1660-1722.</p> <p>1724: History: Silahdar Mehmed Findikli was the author of <i>Silahdar Tarihi</i> (History) and <i>Nusret Name</i> (Book of Victory) (2).</p> <p>1730: Poetry: Turkish: Nedim was a prominent poet of the Tulip Period. He reformed the Divan style (2).</p> <p>1732: Politics: Turkish: <i>Sefarat Name</i> (Book for Embassies) on ethics and politics by Yirmisekiz Mehmed Chelebi (2).</p> <p>1733: Poetry: Urdu: Najm ud din Aabroo, Delhi.</p> <p>1735: Poetry: Urdu: Sheikh Sharaf ud din Mazmoon, Delhi.</p> <p>1739: Art: <i>The Peacock Throne built by Shah Jahan in Delhi is plundered by Nadir Shah and taken to Persia.</i></p> <p>1744: Poetry: Urdu: Wali (b. 1650) of Deccan, the first user of <i>Urdu i Mualla</i> (High or Exalted Urdu) (2).</p> <p>1747: Poetry: Persian: Shula started a new style of poetry in Isfahan and Shiraz (2).</p> <p>1748: Poetry: Urdu: Muhammad Shaker Naaji, Delhi.</p> <p>1749: Poetry: Urdu: Mullah Muhammad Aleem Tahqeeq Azeemabadi (b. 1659), Bihar.</p> <p>1754: Poetry: Urdu: Anjam (Mukhlis, Ashraf, Yaqeen, Mubtala), Delhi.</p> <p>1756: Poetry: Urdu: Khan Aarzo (b. 1687).</p> <p>1757: Poetry: Persian: Mushtaq wrote in the new style (2).</p> <p>1758: Poetry: Punjabi: Baba Bulleh Shah (b. 1680) of Kasur wrote Sufi poetry (2).</p> <p>18th Century: Arts: Painting: Levni, the Turkish artist strongly influenced by the European art, painted scenes of the Ottoman court and the wedding of Sultan Ahmad II's daughter.</p> <p>18th Century: Arts: Carpet weaving in Persian cities—Tabriz, Isfahan, Yazd, and Kirman—continued (2).</p> <p>18th Century: Arts: Textiles: Persian brocades, velvets, and embroideries (2).</p> <p>18th Century: Arts: Metalwork and Pottery: In Persia under the Safavids (2).</p>
1761-1810	<p>1766: History: Ali Hazin wrote <i>Tazkira al Ahwal</i>, about the events of early eighteenth century (2).</p> <p>1778: Poetry: Urdu: Meer Ghulam Ali Azhar, Bihar.</p> <p>1780: Poetry: Urdu: Mirza Rafi Sawda (b. 1712 in Delhi) (2).</p> <p>1781: Poetry: Urdu: Mirza Mazhar Jan i Janan (b.1699 in Delhi), a Muslim revivalist thinker and poet (2).</p> <p>1783: Poetry: Urdu: Zahoor ud din Hatim (b.1699), Delhi.</p> <p>1783: Poetry: Persian: Hatef Isfahani wrote mystical Ghazals and Qasidas (panegyrics).</p>

	<p>1784: Poetry: Urdu: Khawaja Mir Dard (b. 1721 in Delhi) wrote Sufi verse in Urdu (2).</p> <p>1786: Poetry: Urdu: Meer Ghulam Hasan (b. 1737 in Delhi).</p> <p>1788: History: Edward Gibbon published the History of the Decline and Fall of the Roman Empire, which apparently expresses his preference for Islam over Christianity.</p> <p>1793: Poetry: Urdu: Muhammad Qayam ud din Qayam Chandpuri, Delhi.</p> <p>1794: Poetry: Urdu: Khawaja Meer Asar (b. 1735 in Delhi).</p> <p>1795: Poetry: Urdu: Ghulam Sarwar (Shah Ayatollah) Jauhari Mazaqi (b. 1714).</p> <p>1798: Poetry: Urdu: Muhammad Meer Soz, Delhi.</p> <p>1798: Prose: Turkish: <i>Muhayyelat</i> (Imaginations), a book on magic and fairies by Giritli Ali Aziz, a Turkish diplomat to Berlin.</p> <p>1799: Poetry: Turkish: Ghalib Dede, a master of Divan style.</p> <p>1801: Poetry: Urdu: Sheikh Muhammad Roshan Joshish (b. 1747), Bihar.</p> <p>1803: Prose: Urdu: Mir Amman Dehlavi taught at the British East India Company's Fort William College in Calcutta. His most famous work is <i>Bagh o Bahar</i> (Garden of Spring), a collection of Indian fables (2).</p> <p>1809: Poetry: Urdu: Yahya Aman (Qalandar Bakhsh) Jarayat (b. 1749), Lucknow.</p> <p>1810: Poetry: Urdu: Meer Muhammad Taqi Meer (b. 1722), Delhi (2).</p> <p>1810: Poetry: Persian: Majmar wrote in the lyrical style.</p> <p>18th Century: History: <i>Durra i Nadiri</i>, a book in the florid and bombastic style.</p> <p>18th Century: Arts: Carpet weaving in Persian cities—Tabriz, Isfahan, Yazd, and Kirman—continued (2).</p> <p>19th Century: Arts: Textiles: Persian brocades, velvets, and embroideries (2).</p> <p>19th Century: Arts: Metalwork and Pottery: In Persia under the Safavids (2).</p>
1811-1860	<p>1817: Poetry: Urdu: Inshallah Khan Insha (b. 1752), a poet of the florid Lucknow school.</p> <p>1822: History: Poetry: Saba of Persia wrote <i>Shahanshah Name</i>, an account of wars against the Russians (2).</p> <p>1824: Poetry: Urdu: Sheikh Ghulam Hamadani Mushafi, Lucknow.</p> <p>1824: Poetry: Urdu: Mushafi wrote in the ascetic mystic style.</p> <p>1828: Journalism: First Arabic newspaper, <i>Waqai al Misriyya</i>, an official gazette, appeared in Cairo.</p> <p>1830: Poetry: Urdu: Nazeer Akbarabadi wrote about the plight of the common person (2).</p> <p>1832: Journalism: First Turkish newspaper, <i>Taqwim-i-Weqayi</i>, an official gazette, appeared in Istanbul.</p> <p>1833: Poetry: Urdu: Shah Naseer ud din (Kallu Miyan) Naseer (b. 1760), Delhi.</p> <p>1834: Journalism: First Persian newspaper, <i>Ruzname Akhbar i Waqai</i>, appeared in Tehran.</p>

	<p>1838: Poetry: Urdu: Sheikh Imam Bakhsh Nasikh (b. 1771), Lucknow. He purified Urdu poetry diction from the effeminate style.</p> <p>1843: Poetry: Urdu: Pundit Daya Shankar Naseem (b. 1811), Lucknow.</p> <p>1846: Poetry: Urdu: Atish of Lucknow wrote inspirational poetry.</p> <p>1848: Poetry: Urdu: Khawaja Haider Ali Aatish (b. 1778), Lucknow.</p> <p>1851: Poetry: Urdu: Physician-poet Hakim Momin Khan Momin, lyrical poetry (2).</p> <p>1851: Geography: Travels: Chemist Sake Dean Mohammad (1759-1851) was the first Indian to write a book in English in 1794 about his travels. He migrated to Cork, Ireland, in 1786 (2).</p> <p>1853: Poetry: Persian: Qaani wrote in the lyrical style.</p> <p>1854: Poetry: Urdu: Sheikh Muhammad Ibrahim Zauq (b. 1789), Delhi, was the master of panegyric (laudatory) poetry (2).</p> <p>1858: Poetry: Persian: Faroghi wrote Ghazals in the mystical style (2).</p> <p>1859: Politics: Malkam Khan, an Armenian from Isfahan, wrote <i>Kitabcha Ghaibi</i> (Booklet of the Unknown). He was exiled after he founded the Freemason's Lodge in Tehran.</p> <p>19th Century: Carpets: New style produced in Ushuk, Turkey. Prayer mats produced at Ghiordes, Kula, Ladik, Bergama, and Mujur in Turkey (2).</p> <p>19th Century: Textiles: Brocades and embroideries, Bursa, Turkey (2).</p> <p>19th Century: Arts: Carpet weaving in Persian cities, Tabriz, Isfahan, Yazd, Kirman, Kashan, etc. (2).</p> <p>19th Century: Arts: Metalwork and Pottery: In Persia under the Safavids (2).</p>
1861-1910	<p>1862: Poetry: Urdu: Bahadur Shah Zafar, the last Mughal emperor and a pupil of Zawq (2).</p> <p>1866: Syrian Christian scholars Butrus Bustani and Nasif al-Yaziji started the renaissance movement <i>Nahda</i> for Arabic literature.</p> <p>1868: Poetry: Turkish: Folk-style poet, Dadaloghlu.</p> <p>1869: Poetry: Urdu: Nawab Muhammad Mustafa Khan Shaifta (b.1804), Delhi.</p> <p>1869: Poetry: Urdu: Mirza Asad Ullah Khan Ghalib, the greatest Urdu poet and author of <i>Divan i Ghalib</i> (5).</p> <p>1871: Poetry: Turkish: Ibrahim Shinasi translated French poetry.</p> <p>1871: Poetry: Persian: Reza Gholikhan Hedayat (b. 1800), Tehran, became the poet laureate of the Qajar Fatah Ali Khan. His works include <i>Gulistan i Erum</i> (Rose Garden of Erum) and <i>Riyad ul Arefin</i> (Gardens of the Mystics) (3).</p> <p>1873: Literature: Travel: Nasir ud din Shah wrote about his European travels of 1887 and 1889.</p> <p>1874: Poetry: Urdu: Mir Babar Ali Anees (b.1801), master of Shia <i>Marsia</i> (elegiac) poetry, related to the martyrdom of Hazrat Imam Hussain (at Karbala in 680) (3).</p> <p>1875: Poetry: Urdu: Mirza Salamat Ali Dabeer (b. 1803), Shia <i>Marsia</i> (elegiac) poet and a contemporary of Mir Babar Ali Anees.</p>

	<p>1880: Prose: Turkish: Ziya Pasa wrote in the modernist (French) style.</p> <p>1884: Journalism: Jamal ud din Afghani and Mohammad Abduh published the newspaper <i>Urwa al Wuthqa</i> aimed at Islamic revival and against British colonial policies (2).</p> <p>1888: Prose: Turkish: Namiq Kemal wrote in the modernist (French) style.</p> <p>1889: Prose: Arabic: Mikhail Naimy (b. 1889) of Lebanon, essayist and critic.</p> <p>1889: Prose: Arabic: Taha Hussain (b. 1889) of Egypt influenced the development of Arabic literature (3).</p> <p>1892: Prose: Arabic: Jurjis Zaydan, a Lebanese Christian, and his colleagues founded the influential Arabic literary journal <i>Al Hilal</i>.</p> <p>1894: Prose: Mahmud Taymur (b. 1984) of Egypt.</p> <p>1897: Poetry: Urdu: Jan Sahib of Lucknow wrote in the <i>Rikhti</i>, a frivolous style of the language used by women of pleasure.</p> <p>1898: Prose: Urdu: Sir Syed Ahmed Khan elevated Urdu prose to scientific precision (3).</p> <p>1898: Prose: Tawfiq al-Hakim (b. 1898) of Egypt.</p> <p>1898: Journalism: Mohammad Rida, a disciple of Mohammad Abduh, founded the journal <i>Al Manar</i> in Cairo propounding Islamic reforms based on the practice of the early Muslims, <i>Salaf</i>. The movement will be termed "Salafiyya" (2).</p> <p>1900: Prose: Mahmud al-Masadi (b. 1900) of Tunisia.</p> <p>1900: Poetry: Urdu: Ameer Ahmed Ameer Minai (b. 1826), Rampur (2).</p> <p>1903: Prose: Urdu: Rattan Nath Sarshar of Lucknow, the first Urdu novelist.</p> <p>1904: Poetry: Sami al-Birudi of Egypt.</p> <p>1905: Poetry: Urdu: Nawab Mirza Khan Daagh (b. 1831), Rampur.</p> <p>1905: Poetry: Urdu: Muhammad Mohsin Kakoravi (b. 1827), Rampur.</p> <p>1907: Prose: Urdu: Nawab Mohsin ul Mulk, author of <i>Tehzib ul Akhlaq</i> (2).</p> <p>1909: Poetry: Urdu: Syed Zamin Ali Jalal (b. 1834), Rampur.</p> <p>1910: Poetry: Urdu: Muhammad Hussain Azad (1830-1910), Delhi (2).</p> <p>1910: Poetry: Urdu: Durga Sahay Sarwar Jahanabadi (b. 1873).</p>
1911-1960	<p>1910: Prose: Urdu: Zaka Ullah advanced the use in historiography.</p> <p>1910: Prose: Urdu: Mohammad Hussain Azad wrote in an ornately beautiful style (2).</p> <p>1912: Prose: Urdu: Mirza Farhat Ullah Baig (b. 1836) (Deputy Nazir Ahmad), a master of didactic <i>Qissa</i> (storytelling) style (2).</p> <p>1912: Prose: Turkish: Ahmed Midhat.</p> <p>1914: Poetry: Urdu: Maulana Altaf Hussain Hali (b.1838 in Panipat), master essayist and poet.</p> <p>1914: Prose: Urdu: Shibli Naumani, master of the use of Urdu for historiography.</p> <p>1915: Prose: Turkish: Tewfik Fikret.</p> <p>1917: Poetry: Urdu: Sheikh Muhammad Ismail Meerathi (b. 1844).</p> <p>1921: Poetry: Urdu: Syed Akbar Hussain Akbar Allahabadi (b. 1846) pioneered the use of humor and sarcasm in poetry with a social message to the common person (2).</p>

- 1924: Prose: Persian: Mirzadeh Eshghi (b. 1893) in Hamadan wrote plays including *Rastakhiz Iran* (Resurrected Iran) that were critical of the shah. He was assassinated at the age of thirty-one (2).
- 1926: Poetry: Urdu: Pundit Brij Narayan Chakbast (b. 1882).
- 1927: Poetry: Urdu: Syed Ali Muhammad Shaad Azeemabadi (b.1846), Bihar.
- 1926: Poetry: Persian: Iraj Mirza (b. 1874) in Tabriz is considered a modern poet, famous for "Dastan e Zohreh o Manochehr" (Story), "Dastan i Chador" (Story of Chador), and "Tasvir e Zan" (Picture of a Woman) (2).
- 1926: Prose: Urdu: Abdul Halim Sharar of Lucknow, essayist and historian. Author of *Guzishta Lucknow* (Ancient Lucknow) (2).
- 1931: Prose: Urdu: Mirza Ruswa of Lucknow, famous for the novel *Umrao Jan Ada* (2).
- 1931: Essayist, Poet, Mystic: **Khalil Gibran** of Lebanon, author of *The Prophet* (4).
- 1932: Prose: Turkish: Ahmed Rasim.
- 1932: Poetry: Ahmad Shauqi of Egypt.
- 1932: Poetry: Urdu: Naubat Rai Nazar (b.1866), Lucknow.
- 1933: Poetry: Urdu: Syed Haider Ali Nazm Tabatabayi (b. 1853).
- 1934: Poetry: Urdu: Syed Riaz Ahmad Riaz Khairabadi (b. 1852).
- 1934: Poetry: Persian: Aref Qazvini (b. 1882) in Qazvin wrote patriotic poems (2).
- 1934: Poetry: Abul Qassim al-Shabbi of Tunisia.
- 1934: Prose: Turkish: Jenab Shihab al-Din.
- 1935: Poetry: Urdu: Mirza Muhammad Hadi Azeez Lucknowi (b. 1882).
- 1936: Prose: Urdu: Munshi Prem Chand, a prominent Urdu novelist (2).
- 1936: Poetry: Urdu: Asghar Hussain Asghar Gondvi (b.1884).
- 1936: Poetry: Urdu: Jagat Mohal Lal Rawaan Unnawi (b.1889).
- 1937: Prose: Turkish: Abdul Haqq Hamid wrote in the modernist style.
- 1937: Poetry: Arabic: Tijani Bashir of Sudan.
- 1938: Prose: Arabic: Tawfiq al-Hakam, diary of a country prosecutor.
- 1938: Poetry: Persian: Urdu: Philosopher-poet **Dr. Mohammad Iqbal** of Lahore, Pakistan, wrote uplifting nationalist and religious poetry in a lyrical style. He was the most influential of Urdu poets who wrote with unprecedented intellectual forcefulness (5).
- 1939: Prose: Arabic: Mahmud Taymur, *Call of the Unknown*.
- 1941: Poetry: Urdu: Shaukat Ali Khan Fani Badayuni (b. 1879).
- 1941: History: Abdul Wahhab al-Najjar wrote *Qisas al Anbiyya* (Tales of the Prophets) (2).
- 1943: Prose: Arabic: Yahya Haqq, *Umm Hashmi's Lamp*.
- 1944: Prose: Azeri: Mirza Hassan Roshdieh (b. 1851) in Tabriz wrote *Vatan Dilli* (Language of the Homeland) in Azerbaijani language.
- 1944: Prose: Turkish: Husayn Rahmi.
- 1944: Poetry: Turkish: Mehmed Emin.
- 1945: Prose: Turkish: Khalid Ziya Usakigil.

- 1946: Poetry: Urdu: Jaleel Hasan Jaleel Manikpuri (b.1866).
- 1946: Poetry: Urdu: Mirza Zakir Hussain Saqib Lucknowi (b.1869).
- 1947: Prose: Arabic: Neguib Mahfouz, the future Nobel Prize winner, wrote the novel *Midaq Valley* (4).
- 1948: Prose: Arabic: Dhul Nun Ayub.
- 1949: Poetry: Turkish: Reza Tewfik.
- 1950: Prose: Turkish: Mahmud Makal.
- 1950: Poetry: Persian: Parvir Etesami.
- 1950: Poetry: Persian: Nima Yushij.
- 1950: Politics: Sheikh Khalid, *From Here We Start*, a book condemning the religious establishment.
- 1950: Poetry: Urdu: Syed Ali Naqi Safi Lucknowi (b.1862).
- 1951: Poetry: Urdu: Syed Ashiq Hussain Seemab Akbarabadi (b.1880).
- 1951: Prose: Urdu: Syed Fazal-ul-hasan Hasrat Mohani (b. 1881).
- 1951: Poetry: Urdu: Syed Anwar Hussain Aarzo Lucknowi (b. 1873).
- 1951: Prose: Persian: Sadegh Hedayat.
- 1951: Poetry: Persian: History: Mohammad Taqi Bahar (b. 1886) in Mashhad, Iran, wrote in a beautiful patriotic style. His works include *Tarikh i Sistan* (History of Sistan) and *Sabk Shinasi* (Methodology of Understanding) (3).
- 1951: Prose: Urdu: Hasrat Mohani, a poet of the romantic genre (2).
- 1952: Politics: Abdul Razzaq Sanhuri of Egypt wrote on civil rights.
- 1954: Prose: Arabic: Abdul Rahman Sharqawi of Egypt wrote on the problems facing the peasants (2).
- 1955: Prose: Urdu: Khawaja Hasan Nizami (b. 1879), a prolific writer and historian of the 1857 war (2).
- 1955: Prose: Urdu: Saadat Hasan Manto, a novelist dealing with controversial subjects of the society (2).
- 1956: Prose: Urdu: Qazi Abdul Ghaffar, Urdu novelist.
- 1956: Prose: Malaysian: Takali wrote *Shrimps*, a social commentary.
- 1956: Poetry: Urdu: Mirza Wajid Hussain (*Yasthen Yagana Changezi*) (b.1883).
- 1958: Poetry: Urdu: Mubarak Hussain Mubarak Azeemabadi (b.1869), Bihar.
- 1958: Prose: Urdu: Religion: Abul Kalam Azad, essayist, politician, and scholar who wrote in an Arabized intellectual style (3).
- 1959: Poetry: Turkish: Nazim Hikmat, Yahya Kemal, and Orhan Veli (3).
- 1959: Linguistics: Persian: Ali Akbar Dekhoda (b. 1879) in Tehran was the author of the most extensive dictionary, *Lughat Nama* (3).
- 1960: Poetry: Urdu: Ali Sikandar Jigar Moradabadi (b. 1890), a poet of classical Ghazal (2).
- 1961: Prose: Urdu: Maulvi Abdul Haqq, writer and politician, known as *Baba-i-Urdu* (Grandman of Urdu) for his championship of the language as a national language of Pakistan (3).

<p>1962: Poetry: Persian: Forugh Farrokhzad. 1894-1982: Poetry: Urdu: Shabbir Hussain Khan Josh Malihabadi (b.1894) (3). 1896-1982: Poetry: Urdu: Raghupati Sahay Firaq Gorakhpuri (b.1896). 1903-1973: Prose: Urdu: Religion: Maulana Abul Ala Maududi, a famous thinker and Islamic revivalist and a prolific writer in a lucid and sophisticated intellectual style (3).</p>
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e. Infrastructure and Institutions

(Roads, Canals, Universities, Hospitals, Observatories, Libraries, Trade Development)

Time Line (fifty-year interval)	Achievements																														
Summary	<p style="text-align: center;">Overall Infrastructure: Mosques, Mausoleums, Palaces, Forts & Public Works</p> <table border="1"> <caption>Approximate data from the line graph</caption> <thead> <tr> <th>Year</th> <th>Number of Major Achievements</th> </tr> </thead> <tbody> <tr><td>600</td><td>30</td></tr> <tr><td>700</td><td>20</td></tr> <tr><td>800</td><td>30</td></tr> <tr><td>900</td><td>20</td></tr> <tr><td>1000</td><td>20</td></tr> <tr><td>1100</td><td>50</td></tr> <tr><td>1200</td><td>30</td></tr> <tr><td>1300</td><td>55</td></tr> <tr><td>1400</td><td>40</td></tr> <tr><td>1500</td><td>62</td></tr> <tr><td>1600</td><td>62</td></tr> <tr><td>1700</td><td>10</td></tr> <tr><td>1800</td><td>22</td></tr> <tr><td>1900</td><td>0</td></tr> </tbody> </table>	Year	Number of Major Achievements	600	30	700	20	800	30	900	20	1000	20	1100	50	1200	30	1300	55	1400	40	1500	62	1600	62	1700	10	1800	22	1900	0
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	Details																														
661-710	<p>670: Mosque: Kufa built by the Umayyad governor Hajjaj bin Yusuf. 671: City: City of Kairouan, Tunisia, established by the Umayyad general Uqba bin Nafi (622-83). He was famous for his remarks on reaching the coast of the Atlantic Ocean, "that with Allah as his witness, he can proceed no further" (5). 685: Postal System: Caliph Abdul Malik set up an efficient courier system. 691: Mosque and Mausoleum: The Dome of the Rock (<i>Qubba al Sakra</i>) in Jerusalem was completed under Caliph Abdul Malik. Al-Aqsa Mosque also neared completion (5).</p>																														

	<p>692: Currency: First Islamic gold and silver coins (dinars and dirhams) minted in Damascus under Caliph Abdul Malik. They bore no ruler's face.</p> <p>702: Mosque: Mosque at Wasit by Hajjaj bin Yusuf.</p> <p>706: Mosque: Mihrab of mosque in Medina.</p> <p>710~: Palace: Umayyad palace in Jericho, Palestine.</p>
711-760	<p>714: Palace and Fort: Anjar, Lebanon.</p> <p>715: Mosque: Great Mosque of Damascus by al-Walid I. It included the Basilica of Saint John the Baptist.</p> <p>724~: Palaces: Two palaces in the desert near Palmyra, Jordan, by Caliph al-Hisham.</p> <p>727: Mosque: Bhambor, Sind, the first mosque in India built on the orders of Hajjaj of Kufa. Similar in style to that of the mosques in Kufa (670) and Wasit (702).</p> <p>744~: City: Last Umayyad caliph Marwan II moved his capital from Damascus to Harran in Turkey, involving huge reconstruction of buildings (5).</p> <p>743: Palace and Fort: Qasr Usais al-Gharbi and Qasr Usais al-Sharqi, Palmyra; Qasr al-Majfar and Qasr Khirb al-Minya, Palestine; Qasr Kharan, Qasr al-Tuba, and Qasr Mashatta, Jordan (7).</p> <p>754: <i>Administration: Ministry of Post and Information set up by Caliph Mansur.</i></p> <p>758: City: Start of the new Abbasid capital of Baghdad under al-Mansur, on the banks of Tigris and connected to Euphrates by a canal. Later it became a world-class city and a center of learning and culture, only to be destroyed by the Mongols in 1258.</p> <p>8th Century: Education: University of Gondeshapur was established around 530 in the pre-Islamic period of the Sassanids. It started work under Muslim administration imparting top-level education in philosophy, arts, sciences, and mathematics. The university was well placed as it provided a bridge between the Hellenic, Indian, and Chinese knowledge.</p> <p>8th Century (late): Mosque: Al-Rafiq, Raqqa, by the Abbasids.</p> <p>8th Century (late): Palace and Fort: Al-Ukhaidir during Caliph al-Mansur's reign.</p> <p>8th Century: Mosque: Al-Mansura, Sind, the second oldest mosque in India.</p> <p><i>8th to 10th Century: Decline in Tax Revenues: Abbasid Revenue from Taxes (Ref: MR):</i></p> <p style="padding-left: 40px;">750: 400 million gold dinars 850: 300 million gold dinars 919: 210 million gold dinars</p> <p><i>The decline can be attributed to the weakening power of the center.</i></p>

761-810	<p>762: City: Baghdad as the capital city founded by Caliph al-Mansur. Great mosque by Harun ur Rashid (5). (<i>Baghdad destroyed in 1258 by Halaku</i>).</p> <p>786: Mosque: Cordoba, Spain, by Abd al-Rahman I. Improved in 833 and 855.</p> <p>796: Monastery: Ribat at Monastir, Algeria.</p> <p>801: City: City of Abbassia near Kairouan founded by the Aghlabids (5).</p> <p>801~: Palace and Fort: Qasr Qadim by Ibrahim I.</p> <p>806: City: Center of Learning: Emir Idris II of Morocco founded the city of Fez on Sebou River. In time, Fez will become the center of learning and a bastion of Islamic faith (5).</p> <p>9th Century (mid): Great Mosque of Zaragoza, Spain (now a church).</p> <p>9th Century: Administration: Abu Yusuf, pupil of Imam Abu Hanifah, <i>Book of Land Tax (Kharaj)</i>.</p>
811-860	<p>822: City: Center of Learning: Expansion of Cordoba started under Abdur Rahman II. It will become one of the great cities of Eurasia and a world-class center of learning (5).</p> <p>828: Observatory: Baghdad: Al-Fadl al-Naubakht, a Zoroastrian from Khwarizm and the son of Naubakht, the architect of the city of Baghdad. He was appointed as the chief librarian at the House of Wisdom.</p> <p>828: Observatory: Raqqa: Under al-Battani. He recalculated the declination of the ecliptic to be 23° 25'. The earlier figure of 23° 51' 20" had been calculated by the Greek mathematician Eratosthenes in 230 BC.</p> <p>828: Observatory: Shiraz: Under Abdur Rahman al-Sufi.</p> <p>833: Library and Research Center: Bait ul Hikmah, Baghdad, founded by Caliph al-Mamun, an institute dedicated to scientific research and translations (3).</p> <p>836: Mosque: Kairouan by the Aghlabid Ziyadat Ullah.</p> <p>836: City: Following riots by the Turkish soldiers, the Abbasid Mutazila caliph al-Mutasim moved the capital from Baghdad to Samarra. Immense palaces including Jawsaq al-Khaqani and many mosques were built. Harem was decorated with the figures of dancers, birds, and garlands. After forty-seven years, in 883, Samarra was abandoned in favor of Baghdad by Caliph al-Mutamid (5).</p> <p>836: Mosque: Kairouan rebuilt by Ziyadat Ullah.</p> <p>837: Gateway: Bab al-Samarra.</p> <p>847: Mosque: Great Mosque, Samarra, the largest in the world built by al-Mutawwakil.</p> <p>850: Mosque: Great Mosque of Sousse, Maghreb.</p>
861-910	<p>861: City: Samarra City doubled in size by al-Mutawwakil (5).</p> <p>861: Mosque: Abu Dulaf, Samarra.</p> <p>862: Mausoleum: Qubba al-Sulaibiya, Samarra.</p>

	<p>863: Mosque: Great Mosque, al-Zaitouna at Tunis.</p> <p>876: City: Raqqada established near Kairouan by the Aghlabid Ibrahim II. It included Qasr al-Futuh, al-Sahn, al-Bahr, and al-Bagha (5).</p> <p>879: Mosque: Ibn Tulun Mosque, Cairo, by the Mamluks.</p> <p>888: Library: Ali bin Yahya, Baghdad, founded a library called Khizanat ul Hikmah (Treasury of Knowledge).</p> <p>902: Library: Caliph al-Mutadid founded a library along with paid professors in his palace.</p> <p>907: Mausoleum: Ismail, Bokhara, the Samanid capital.</p> <p>9th Century: Madrassas in Kairouan and Fez (2).</p> <p>9th Century: Waterworks: Water storage at Kairouan, Raqqada, and Sousse in Tunisia built by the Aghlabids (3).</p> <p>9th Century: Mosque: Great Mosque of Sfax, Tunisia.</p>
911-960	<p>911: Mosque: Tariq Khana Mosque at Damghan, central Asia.</p> <p>921: City: City of Mahdiyya, the capital of the Fatimids (5).</p> <p>930: <i>Center of Learning: Cordoba: The new Umayyad caliphate encouraged trade and scholarly relations with Byzantines. Cordoba's reputation as a center of learning enhanced.</i></p> <p>930: Mosque: Bell Tower, Cordoba (now called San Juan de Caballeros).</p> <p>932: Hospital: Adudi Teaching Hospital, Baghdad: Under Sinan bin Thabit al-Qurrah.</p> <p>936: City: Umayyad Abdul Rahman III (golden rule 912-951) founded Medina al-Zahra (known as the Versailles of the tenth century) near Cordoba (5).</p> <p>937-952: City: Khalisa founded by Kalbid rulers near Palermo, Italy (5).</p> <p>940~: Other Libraries: Mosul, Shiraz (Khizanat al-Kutub), Rayy (Bayt al-Kutub), and Basra (3).</p> <p>940~: Library: Eighteen-thousand-volume library Khitat a Khizanat in Cairo, established by the Fatimid caliph al-Muizz.</p> <p>941: Mosque: Al-Zahra, Cordoba.</p> <p>944: Mosque and Fort: (Ribat) at Guardamar, Alicante, on the Mediterranean coast by the Umayyads.</p> <p>946: City: Mansuriya founded near Kairouan by the Fatimid al-Mansur (5).</p> <p>954: <i>Trade: Persian trade in Furs from Volga.</i></p> <p>10th Century: <i>Trade with China and Saymur (Bombay) established.</i></p> <p>10th Century (mid): Mosque: Founded at Nayin, Persia.</p> <p>10th Century: <i>Administration and Governance: Iqta system of granting proceeds of land revenue to military and officials in lieu of regular salary started by the Abbasids in Baghdad. This system was adopted by Fatimids, Ayyubids, and Mamluks in Egypt and by Seljuqs and Ottomans in Anatolia.</i></p>

	<p><i>Pros of Iqta:</i></p> <p><i>The government administrative responsibility was reduced.</i> <i>The morale of military and officials was raised.</i> <i>Since the title was not permanent, it impeded the rise of hereditary aristocracy (feudalism).</i></p> <p><i>Cons of Iqta:</i></p> <p><i>Expeditions suffered because of nonavailability of the military at harvest time.</i> <i>Government revenues and hence power were severely curtailed. This gave rise to dissatisfaction of unemployed youth in cities who form</i></p> <ul style="list-style-type: none"> + <i>Futuwwas: armed chivalrous groups</i> + <i>Ayyarun: criminal gangs</i> + <i>Himaya and Taljiya: protection rackets</i>
961-1010	<p>961: Library: The library of Cordoba, Spain, established under the Umayyad al-Hakem II with four hundred thousand volumes was the world's largest (Andalusia was at the zenith of its power and influence under Abdul Rahman III).</p> <p>965: Mosque: Great Mosque of Cordoba, Spain.</p> <p>969: City: Construction of Fatimid's capital city of Cairo, near Fustat, started.</p> <p>970: Hospital: The Buyid emir Adud ud Daula, considered the greatest emir of the Buyids, established Adudi Hospital, Baghdad, stocked with Chinese/Indian medicines.</p> <p>970: Observatory: The Buyid emir Adud ud Daula established an observatory at Isfahan where Abdur Rahman al-Sufi worked.</p> <p>970: Administration: <i>Hasday ibn Shaprut, Jewish advisor to Abdur Rahman III of Spain.</i></p> <p>972: Education: Al-Azhar University: founded by Jawaher, Shia Ismaili Fatimid ruler (3).</p> <p>974: Mosque: Naynz, Persia.</p> <p>977: Mausoleum: Of Arab Ata at Tim in Uzbekistan.</p> <p>988: Education: Al-Azhar University: Thirty teaching position created by Ibn Kallis.</p> <p>998: Mosque: Natanz, Persia.</p> <p>998: Administration: <i>Fatimids: Established</i></p> <p style="text-align: center;"><i>Diwan-i-Majlis (Iqta and General Administration)</i> <i>Diwan-i-Amwal (Finance Department)</i> <i>Diwan-i-Insha` (External Affairs)</i></p> <p>1000: Mosque: Bab Mardum, Toledo, Spain.</p> <p>1003: Mosque: Cairo built by the Fatimid al-Hakim.</p>

	<p>1005: Library: Darul Hikmah, Cairo, founded by Caliph al-Hakim to rival Cordoba (3).</p> <p>1006-1012: Mausoleum, Dome: Qunbad-i-Qabus at Jurjan near Caspian Sea by Qabus bin Wushmgir.</p> <p>1007: City: Qalat Bani Hammad, new capital of the Hammadids, destroyed in 1152 by the Almohads (5).</p> <p>10th Century: Hospital: Al-Nuri Teaching Hospital, Damascus.</p> <p>10th Century: Mausoleum: Samanids at Bokhara.</p> <p><i>10th Century: Banking: Deposit and exchange banks established on trading routes. Money-changing office Jahbadh established. Noted Jewish money changers, Yusuf bin Firas and Harun bin Imran, in Alexandria.</i></p>
<p>1011-1060</p>	<p>1023: Observatory: Hamadan: Used by Ibn Sina.</p> <p>1029-49: Caravanserais: Ahuwan near Simnan, central Asia.</p> <p>1030: City: Capital Ghazni: Mahmud Ghaznavi. Bazaars (Lashkari), palaces, and mosques (5).</p> <p>1032: Tower: Tirmiz by the Ghaznavids (over seventy of this type were built in Afghanistan and central Asia).</p> <p>1037: Mausoleum: Dawazdah Imam at Yazd.</p> <p>1040: <i>Trade: Alexandria: Trading links with Europe and India, China. Jewish traders active.</i></p> <p>1043: Library: In Cairo containing six thousand five hundred books on astronomy, geometry, and philosophy.</p> <p>1050~: Observatory: Toledo, Spain, under al-Zarqali (Arzachal).</p> <p>1050~: Tower: Seville, Spain, by Jabir bin Aflah.</p> <p>1058: Fort: Alcazaba in Malaga, Spain, by the Hammadids.</p> <p>11th Century: Waterworks: Irrigation system in Marrakech.</p> <p>11th Century: City: City of Lashkargah on the Helmand River founded by the Ghaznavids (5).</p> <p>11th Century: Fort: Al-Askar, Lashkargah.</p> <p>11th Century: Mausoleum: Tomb of Qutham ibn Abbas (d. 676) (a cousin of the Prophet) built in Samarqand.</p> <p>11th Century: Mosque: The beautiful mosque Tal Khatun Pasa, Merv.</p> <p>11th Century: Mosque: Yart in Gumbad, Turkmenistan.</p>
<p>1061-1110</p>	<p>1062: City: Almoravids established Marrakech, Morocco, as their capital city (5).</p> <p>1065: Madrassa: Nizamiyah: Founded by the Seljuq ruler Alp Arsalan's Persian minister Nizam ul Mulk. After this, madrassas will be set up in every major city under the Seljuqs, leaning toward Shaafii Maslak. Imam Ghazali also taught there (5).</p> <p>1065: <i>Administration and Economy: Military land tenure system, Iqta. Consolidation of rural and urban economy.</i></p>

	<p>1067: City: Bejaia, North Africa, founded by the Hammadids (5). 1075: Palace: Toledo, Spain, by al-Mamun, a Taifa ruler (1043-75). 1078: Caravanserai: Ribat-i-Malik, Ribat-i-Sharif. 1082: Mosque: Telemcen, Algeria, by the Almoravid Yusuf bib Tashfin. 1083: Fort and Palace: Al-Jaferia, Zaragoza, Spain, by Abu Jaafer Muqtadir Billah of Banu Hud. 1085: <i>Toledo: Lost by the Muslims to Alfonso VI, signalling the Reconquista. The library of Toledo with its thousands of priceless manuscripts on science, technology, and beautiful works of art fell into the hands of the Christians. Alfonso VI forced the small Taifa states of Badajoz, Valencia, Murcia, Tortosa, and Balearic Island to become his tributaries.</i> 1085: Mosque: Seljuq style al-Djuyuchi Mosque, Cairo. 1086: Mosque: Nedrona, Spain, by the Almoravids. 1090~: Fort: Dar al-Hajjar (House of Stone). 1094: Fort: Defensive ramparts of Cairo built by Badr al-Jamali, the Wazir. 1096: Mosque: Great Mosque of Algiers. 1107: <i>Administration: Land consolidation and distribution in Egypt.</i> 1109: Tower: Forty-meter Jarkurgan, Uzbekistan.</p>
1111-1160	<p>1115: Tower: Forty-four-meter-high tower, Ghazni, by Masud III. 1118: City: Merv established by Sultan Sanjar as the capital of the Greater Seljuqs (5). 1120~: Observatory: Used by Omar Khayyam. 1120 : Mausoleum: Tomb of Syeda Atiqah. 1125: Mosque: Al-Aqmar Mosque, Cairo. 1127: Tower: Forty-six-meter-high Kalan, Bokhara. (This was damaged by the Soviets in 1920.) 1133: Mausoleum: Tomb of Syeda Ruqaiya. 1138~: Observatory: Established under Ibn Bajja (Avempace) (d. 1138) of Zaragoza, Spain. 1140: Mosque: Keysari by Danishmend. 1141: Tower: Forty-one-meter at Webkent, Turkmenistan. 1142: Mosque: Taza, Algeria, by Almohad Abdul Mamun. 1143: Mausoleum: Qubba al-Barudiyin, Marrakech. 1146: Mosque and Madrassa: Jami al-Nuri by the Seljuq Nur al-Din (2). 1146: Mausoleum: Tomb of Halife Gazi in Amasaya. 1147: Institutions: Marrakech under the Almohads became a center of arts and sciences (5). 1147: Bridge: Batina Suyu near Malabadi on the Diyarbakir-Bitlis road. 1152: Tower: Forty-four-meter built by Bahram Shah, Masud III's son. 1153~: Mausoleum: Minar-i-Jam, Afghanistan: Ghiyas ud din Ghauri.</p>

	<p>1153: City: Tinmal, North Africa, the new capital of the Almohads (5).</p> <p>1154: Mosque: Ibn Tumart mosque at Tinmal, Atlas Mountains, Morocco.</p> <p>1159: Fort: Gibraltar fortified by the Almohads of Spain.</p> <p>1160: Bridge: Tigris near Cizre by the Zangid Qutub al-Din Maudud of Mosul.</p> <p>12th Century: Mausoleum: Chashma Ayub, Bokhara.</p> <p>12th Century: Mausoleum: Khankah Hakim Tirmiz.</p> <p>12th Century: Mausoleum: Sultan Sanjar, Merv.</p> <p>12th Century: Mausoleum: Gunbad-i-Alawiyyan constructed at Hamadan.</p> <p>12th Century: Tower: Constructed at Nigar and Kirman (2).</p>
1161-1210	<p>1163-84: <i>Institutions: The Almohad Abu Yaqub Yusufi patronizes philosophy, arts, and sciences in Seville.</i></p> <p>1164: Mosque: Kutubiya, Marrakech, with its eighty-meter tower by the Almohads.</p> <p>1167: Mausoleum: Chisht, near Herat, by the Ghaurid Ghiyas al-Din.</p> <p>1170~: Hospital: Al-Mansuri in Cairo founded by Sultan Saladin.</p> <p>1172: Mosque: Great Mosque of Seville with its eighty-meter tower.</p> <p>1173: Madrassas: By Seljuq rulers. Mosul, Minare, Konya, Sirjeli, and other places (5).</p> <p>1175: Bridge: Tigris near Hasankeyf.</p> <p>1175: Mosque: Silvan Cami, southeast Turkey.</p> <p>1176: Madrassa: Shah i Mashhad, Baghdis, in Afghanistan by the Ghaznavids.</p> <p>1176: Madrassa: Najm ud din Alpi at Mardin, Turkey.</p> <p>1176-81: <i>Administration: Land reconsolidation and distribution in Egypt (Iqta) by Saladin.</i></p> <p>1179: Mosque: Erzurum.</p> <p>1180: Mosque: Sivas.</p> <p>1183: Madrassa: Al-Nuriya, Damascus.</p> <p>1183: Roads: Extensive road network in Spain (5).</p> <p>1187: Mausoleum: Qarakhand, Uzgen.</p> <p>1189: Madrassas: In Jerusalem founded by Sultan Saladin, al-Adaliyyah, and al-Nuriya (2).</p> <p>1193: Mausoleum: <i>Turbe</i> of Kilic Arslan II, Konya.</p> <p>1195: Mosque: Seville with its minaret Giralda.</p> <p>1196: Tower: Eighty-meter Hassan Tower, Rabat, Morocco.</p> <p>1196: Mosque: Ulu Cami (main mosque) Sivas, Turkey, by the Seljuq sultan Alp Arslan.</p> <p>1199: Tower: Seventy-two-meter-tall Qutub Minar, Delhi, as a part of the Quwwat al-Islam (Might of Islam) Mosque, was built by Qutub ud din Aybak.</p> <p>1200: Mosque: Great Mosque of Herat by the Ghaurids.</p> <p>1200: Mausoleum: Ala ud din Tekesh, Khwarizm shah.</p> <p>1200~: Madrassas in North Africa set up by Almohad rulers (5).</p>

	<p>1201: Caravanserai: Altinapa near Konya.</p> <p>1203: Mausoleum: Minaret of Jam, Afghanistan, built by Ghiyas ud din Ghauri (similar to the Qutub Minar of Delhi). Over forty of this type were built throughout the Ghaurid empire.</p> <p>1203: Madrassa: Al-Umariya, Damascus.</p> <p>1203: Mosque: Al-Muzaffar, Damascus.</p> <p>1204: Caravanserai: Kiziloren Khan on the Konya-Bayshehir road.</p> <p>1205: Hospital: Shifaei in Kayseri, Anatolia.</p> <p>1206: Mosque: Arhai Din Ka Jhompra (Twelve-and-a-half-day Shack), a large mosque built in twelve and a half days in Ajmer.</p> <p>1208: Mausoleum: Fakhar ud din Razi, Kuna, Uzbekistan.</p> <p>12th Century: Tower: Torre del Oro (Golden Tower) in Seville, Spain.</p> <p>12th Century: Mosques, Kairouan, Fez, and Telemcen, by the Almoravid Ali bin Yusuf (4).</p> <p>12th Century: Caravanserai: Built by the Seljuqs at Altinapa, Kiziloren Khan Konya Road, Sultan Khan, Kayseri Sivas Road. (10).</p> <p>12th Century: Bridge: Shahrstan Bridge on Zyanda-Rud River.</p> <p>12th Century: Bridge: Kizilmerak near Kirshehir, Anatolia.</p> <p>12th Century: Public Baths: At Nigar and Kirman, Persia, by the Seljuqs (2).</p> <p>12th Century: Hospital: Divrighi, Anatolia, by the Seljuqs.</p> <p>12th Century: Mosque: Great Mosque of Rabat, the second largest in the Muslim world after Samarra.</p> <p>12th Century: Mausoleum: Aisha Bibi, Kazakhstan.</p>
1211-1260	<p>1211: Mausoleum: Work of Qutub Minar in Delhi started by Sultan Altamash (Iltutmish).</p> <p>1211: Mausoleum: Imam Shaafii, Cairo.</p> <p>1215: Mosque: Haci Ferruh Cami, Konya.</p> <p>1217: Hospital: Izz al-din Kaikawus I Sifaiye in Sivas, Anatolia.</p> <p>1219: Mosque: Great Mosque of Samarqand by Sultan Iltutmish.</p> <p>1220: Mosque: Ala al-Din Jami, Konya.</p> <p>1220: Mosque: Ulu Cami, Divrigi, by Mengucekid Ahmad Shah, a vassal of the Seljuq sultan Kaiqubad.</p> <p>1221: Fort: Ramparts and gate Bab Wastani, Baghdad, by al-Nasir (2).</p> <p>1222: Palaces: Diyarbakir, Harput, and Hasankeyf by Nasir al-Din Mahmud (3).</p> <p>1223: Madrassa: Al-Adaliyyah, Damascus.</p> <p>1224: Madrassa: Mesudiya, Diyarbakir.</p> <p>1225: Mausoleum: Sit Zubaida, Baghdad, by al-Nasir for his mother.</p> <p>1226: Caravanserai: Sultan Khan on the Keysari-Sivas road.</p> <p>1227: Palace: Qudabad, Lake Bayshehir, Turkey, by Sadar ud din Kopek, a vassal of Sultan Kaikhusru.</p> <p>1228: Mosque: Ala ud din Cami, Nigde, Turkey.</p>

- 1228: Caravanserai: Established at thirty-kilometer distance along most highways in Turkey: Sultan Khan, Aksarayi, Karatay, Kirkgoz, and Tuzhisar (10).
- 1229: Mosque: Great Mosque Quwwat ul Islam, Delhi, by Sultan Iltutmish.
- 1229: Mosque: Great Mosque of Divigri, Anatolia, by Ahmad Shah.
- 1229: Monument: A screen with seven arches constructed by Sultan Iltutmish in Delhi in honor of the visit by the Abbasid caliph Mustansir (**the first and only such visit by a caliph to India**).
- 1230~: Mosque: Ulu Cami, Diyarbakir, by the Artuqid Oguz Turks.
- 1230: Palaces: Granada, Alhambra: The Nasirid Mohammad ibn Ahmar started construction of the Red Palace and numerous other buildings (5).
- 1232: Mosque: Mescit Sultan Khan, Keysari Road.
- 1235: Palace: Saad al-Din Kopek, Konya.
- 1236: Mausoleum: Sultan Iltutmish in the Quwwat al-Islam complex, Delhi.
- 1236: *After the defeat of the Almohads at Las Navas de Tolosa in 1212, Algarve was conquered by the king of Portugal in 1217. Cordoba was conquered by Fernando II of Castile. Murcia fell in 1243, Jaen in 1245, Seville in 1248, Niebla in 1257. Granada in southeast corner of Spain bought time by becoming a vassal state in 1238. It survived as a militarily weak but culturally rich state till 1492.*
- 1238: Mosque and Mausoleum: Huand Khatun Complex at Keysari, Turkey.
- 1241: Madrassa: Firdaus in Aleppo, by Daifa Khatun, widow of the Ayyubid sultan al-Zahir.
- 1242: Madrassa: Sirjeli, Konya.
- 1243: Madrassa: Karatay in Konya.
- 1244: Madrassas: Cairo, Sultan Saladin (2).
- 1245: Madrassa: Al-Sahiliya, Syria, by the Ayyubid Rabia Khatun.
- 1246: Mosque: Burmali Minare Cami at Amasaya, Turkey.
- 1248: Hospital: Al-Qaimani, Syria.
- 1249: Madrassa: Sammamiya, Tunis, by the Mirinid Abu Zakariyya.
- 1250: Mausoleum: Qubba of Queen Shajar al-Durr ("Tree of Pearls").
- 1250~: Madrassa: Niskar, Turkey, by the Danishmend ruler Yagi Basan.
- 1250~: Madrassa: Cukur (Sunken), Tokat, Turkey.
- 1250: Madrassa: Cifte Minare, Erzurum, Turkey.
- 1251: Madrassa: The magnificent madrassa at Karatay, Konya.
- 1251: Waterworks: Qaiser constructed irrigation wheels on Orontes River for the prince of Hama.
- 1254: Madrassa: Inje Manarli, Konya.
- 1258: Mosques: Laranda Jami and Sahib Ata Jami, Konya (2).
- 12th-13th Century: Mosques: Seljuq: Natanz, Kuchi Mir, Diyarbakir, Kiziltepe, Konya, Kharput, Bayshehir, Ankara (8).
- 13th Century (mid): City: Tabriz, new capital of the Mongols: Halaku 1252, Ghazan Khan 1295, built under the architect and mathematician al-Urdi (5).

1261-1310	<p>1261: Observatory: Maragha, Central Asia: Used by Nasir ud din Tusi, Qutub al-Shirazi, al-Maghrabi, al-Qazwani, Fao Munji (Chinese), and Barhebraeus. Instruments designed and used included mural quadrant, armillary spheres, solstice, equinox, and azimuth measuring (3).</p> <p>1266: Mosque: Zahiriyya, Cairo.</p> <p>1267: Mosque: Ulu Cami, Sinop, Turkey.</p> <p>1269: Madrassa and Mosque: Cairo under Sultan Baybars I al-Banduqdari (2).</p> <p>1271: Madrassa: Gok in Sivas, Anatolia.</p> <p>1272: Mosque: Afyon Cami, Karahisar, Turkey (used wood columns).</p> <p>1273: Mosque: Alaja Jami, Kharput.</p> <p>1273: Madrassa: Caca Bey, Kirsehir, Turkey.</p> <p>1273: Mausoleum: Mevlana Jalal ud din Rumi Turbe at Konya, the most important Dervish monastery and popular shrine in Turkey.</p> <p>1275~: Madrassa: Gok Madrassa and Cami, Amasaya, Turkey (2).</p> <p>1276: Mausoleum, Dome: Doner Gumbet at Kayseri.</p> <p>1279: Madrassa: Tasin Cay, Turkey.</p> <p>1279: Mosque and Mausoleum: Sahip Ata, Konya, by Fakhar al-Din (2).</p> <p>1281: Palace: Takht i Sulaiman, on Lake Urmiya, Azerbaijan, by Aqaba Khan, son of Halaku Khan.</p> <p>1284: Hospital, Madrassa, and Mausoleum: Cairo under Sultan Qalawun (3).</p> <p>1289: Mosque: Arsalankhane Jami, Ankara.</p> <p>1290: Mausoleum: Sulaiman al-Rifai, Cairo.</p> <p>1294: <i>Reform: Monetary: Attempt to introduce paper money in Persia under Ilkhans led to the collapse of economy.</i></p> <p>1296: Mosque: El Ashraf, Tais, Yemen.</p> <p>1298: Mosque: Eshrefoghlu Jami, Bayshehir.</p> <p>1302: <i>Reform: Administration: Ibn al Tiqtaqa wrote a book on the system of government and the Muslim dynasties.</i></p> <p>1306: City: Sultaniya, new capital of the Mongols under Mohammad Khudabanda Uljeitu (5).</p> <p>1310: Mosque: Jami Masjid, Isfahan, by Uljeitu.</p> <p>1310: Madrassa and Mosque: Al-Azhar, Cairo, Madrassa Taybarsiyya (2).</p> <p>12th Century: Caravanserai: Altinapa, on Kiziloren Khan-Konya Road, Sultan Khan, on Kayseri-Sivas Road by the Seljuqs (10).</p>
1311-1360	<p>1312: Mausoleum: Turbe of Hudavent Khatun, Nigde, Turkey.</p> <p>1313-25: Mausoleum: Tomb of Mohammad Khudabanda Uljeitu (brother of the Ilkhanid sultan Ghazan, the first Mongol ruler to become Muslim and the great-grandson of Halaku) in Sultaniya is considered as one of the great pieces of architecture of the world.</p> <p>1315: Mosque: Jami Mosque, Tabriz, by Rashid al-Din (a convert from Judaism)</p>

- and the vizier of the Ilkhanid sultan Ghazan).
- 1315: Fort: Ramparts of Tabriz by Ali Shah.
- 1315~: Caravanserai along the major trade routes by the Ilkhanids: Khorasan to the Mediterranean, Baghdad, Black Sea, and Constantinople (10).
- 1315: *Reform: Taxation: Reregistration of Iqta lands in Egypt by Mamluk al-Nasir that resulted in reducing the power of the military.*
- 1320: Mosque: Jami Masjid, Tabriz, by the Ilkhanid Uljeitu.
- 1320: Madrassas: Al-Jadid, Sahrij, Misbahiyya, and Sabaiyin in Fez were set up by the Mirinid Abu Said Uthman II (4).
- 1322: Mosque: Verramin near Tehran by the Ilkhanids Abu Said, s/o Uljeitu.
- 1323: Madrassa: Attarin, Syria.
- 1323: Mosque: Altinbugha, Aleppo.
- 1325: Fort: Delhi Fort reinforced by Ghias ud din Tughluq.
- 1325: Mausoleum and Mosque: Abdus Samad of the Suhrawardiyya order at Natanz by the Ilkhanid vizier Zain al-Din Mastari (2).
- 1326: City: Bursa, new capital of the Ottomans, moved to Edirne, Europe, in 1366 (5).
- 1326: City: City of Iznik rebuilt under the Ottomans (5).
- 1330~: Mausoleum: Sufi Sheikh Buraq (Chelebi Oglu) in Sultaniya.
- 1331-1354: Palace: Work on **Alhambra** palaces at Granada started by the Nasirid ruler Yusuf continued by his son Mohammad including Placio des Comares (2).
- 1333: Public Baths: Eski Kapilca (Old Baths), Bursa.
- 1334: Mosque: Alaeddin Cami, Bursa.
- 1334: Mosque: Yazd, Persia, by Shams al-Din Nizami, son-in-law of Vizier Rashid al-Din.
- 1335: Mosque: Mamluk sultan Nasir Mohammad, Cairo.
- 1336~: City: Samarqand, new capital of Timur, later moved to Herat (5).
- 1339: Palace: Bashtak, Cairo, by the Mamluks.
- 1339: Mosque: Orhan Ghazi Cami, Bursa.
- 1340: Madrassa and Mosque: Al-Azhar, Cairo, Madrassa Aqbuqawiyya (2).
- 1340: Caravanserai: Mamluk period, Egypt and Syria (5).
- 1341: Palace: Dar Bashtak, Cairo.
- 1341: Madrassa: Sale, Rabat, by Abul Hasan.
- 1343: Madrassa: Afriduniya, Damascus.
- 1346: Madrassa: Misbahiyya, Fez, by Abu al-Hasan.
- 1347: Madrassa: Sala and Telemcen (2).
- 1347: Tower: Chand (Moon) Minar, a copy of the Qutub Minar, Delhi, built at Daulatabad, Deccan, by Bahman Shah (1347-58).
- 1349: Education: Madrassas in Granada (2).
- 1355: Madrassa: Inamiya, Fez, by Abu Inam.

	<p>1355: Palace: Firozabad, Delhi, by Firouz Shah Tughluq. 1357~: Education: Madrassas Sultan Hasan, Cairo (2). 1360-1404: Palace: Aq Sarayi (White Palace) at Shahr i Sabz (Green City), the hometown of Timur.</p>
1361-1410	<p>1362: Mosque: Sultan Hassan, Cairo. 1364~: Mosque: Adina Jami, Pandua, Bengal. 1366: City: Edirne, Europe, new capital of the Ottomans (5). 1369: <i>Palace: Alcazar, Seville, built by Peter the Cruel using the Mujedar (from Mudayyan, the Muslims that were allowed to remain after the Christian takeover) craftsmen.</i> 1370: City: Samarqand's outstanding works of architecture under Timur (5). 1370: Mosque: Great Mosque of Gulbarga, Deccan, by Bahman Shah. 1371: Mausoleum: Tushak, Samarqand. 1372: Mausoleum: Turkan Aka, Samarqand. 1375: Mosque: Isa Bey Cami, Seljuq (Ephesus), Turkey. 1376: Mosque: Ulu Cami, Manisa, Turkey, by Ishak Celebi. 1380: Mausoleum: Usto Ali Nasafi, Samarqand. 1385: Mausoleum: Shireen Bibi, sister of Timur, in Samarqand. 1385: Madrassa: Sultan Isa, Mardin, Turkey. 1389: Mosque: Murat i Cami, Bursa. Murat was killed during the battle of Blackbird Field, Kosovo. 1390: Palace and Mausoleum: Dar al-Saadat at Shahr i Sabz. (The Spanish ambassador de Clavijo gave a vivid account of his reception at this palace.) 1391: Palace: Placio de las Leones (Court of the Lions), Alhambra, by the Nasirid Mohammad V. 1396: Mosque: Ulu Jami (Great Mosque), Bursa, one of the first under the Ottomans. 1395: Mosque: Great Mosque of al-Jadid, Fez. 1399: Madrassa: Bibi Khanum, Samarqand. 1399: Mausoleum: Khoja Ahmad Yasavi, Turkmenistan. 1399: <i>Timur defeated the Tughluq sultan of India. He entered Delhi and destroyed the city and its building. This was followed by large-scale massacre, one hundred thousand, of its Muslim and Hindu population.</i> 1400~: Mosque: Great Mosque of Kalan in Bokhara. 1400~: Mausoleum: Ishrat Khan, Samarqand. 1402: Mosque: Yildirim Beyazit Cami, Bursa. 1402: Mosque: Ulu Cami of Beyazit I, Bursa. 1402: Mosque: Yesil Cami (Green Mosque), Bursa. 1404: Mosque: The great mosque Bibi Khanum built by Timur in Samarqand. 1404: Mosque: Ottoman Eski Jami, Edirne. 1404: Mausoleum: Timur's mausoleum, Gul-i-Mir, Shah Zinda.</p>

	<p>1405: Mausoleum: Tuman Aka at Shahi i Zinda, Samarqand. 1405: Madrassa: Mohāmmad Sultan, Samarqand. 1408: Tower: Torre de las Infantas, Alhambra, by Mohammad VII. 1408: Mosque: Jami Atta Ullah, Jaunpur, India, by Shams ud din Ibrahim.</p>
1411-1460	<p>1411: Mausoleum: Khankah Sultan Faraj ibn Barquq, Cairo. 1414: Mosque: Eski Cami (Old Mosque), Edirne, built by Mehmet I. 1416-28: Observatory: Samarqand: Founded and used by astronomers including Sultan Ulugh Beg (real name Mohammad Taragai [1394-1449], grandson of Timur), Qazi Zadeh, al-Kashani, and others. 1417: Palace: Generalife outside Granada by Yusuf III. 1418: Madrassas: (3) At Bokhara, Sanag (1420), Gishduwa (1439), by Sultan Ulugh Beg. On the entrance, there was an inscription of the famous Hadis of the Prophet:</p> <p style="text-align: center;">“To strive for knowledge is the duty of each Muslim man and woman.”</p> <p>1420: Palace: Bardo, Tunis, by the Hafside. 1420: Mosque: Sultan al-Muaiyad, Cairo. 1420: Mosque: Ulugh Beg’s mosque with the highest dome in the world. 1420: Mosque: Sultan al-Muaiyad Shah, Cairo. 1421: Mosque: Yasil Cami (Green Mosque), Bursa. 1421: Mausoleum: Mehmed I, Bursa. 1421: Madrassa: Emir Jaqmaq, Damascus. 1422: Mosque: Ghazi Mihal Cami, Edirne. (This mosque was started by the descendents of Kose Mihal, the Byzantine general who, after the battle of Manzikert [1071], converted to Islam and became an advisor to Osman I, the founder of the Ottoman dynasty.) 1422: <i>Reform: The Mamluks attempted to control the currency and trade in commodities and paper.</i> 1424: Mosque: Jami Mosque, Ahmadabad, Gujarat. 1427: Mosque: Karachabey Cami, Angora. 1428: Mosque: Beylerbeyi Cami, Edirne. 1434: Madrassa: Dar ul Hadis, Edirne, by Sultan Murad II. 1435: Mosque: Gok Gumbad (Blue Dome) at Shahr i Sabz (Green City) by Ulugh Beg. 1437: Mosque: Muradiye Cami, Bursa. 1437: Mausoleum: Maqbara Kulal, Persia. 1437: Madrassa: Mustansariya, Tunis, by the Hafside. 1438-47: Mosque: Uc Serefeli Cami, Edirne, the largest of the early Ottoman era by Sultan Murad II. 1440~: Mosque: Melek Pasa Cami, Edirne. 1442: City: Ahmadabad, Gujarat, by Ahmad Shah (5).</p>

	<p>1440: Madrassa and Mosque: Al-Azhar, Cairo, Madrassa Jawhariyya (2). 1450: Palace: Jahaz Mahal, Mandu, India, by Sultan Mahmud Khilji. 1451-81: Administration: Ottomans' legal code, devaluation of currency, state monopolies (3). 1453: City: Istanbul, new capital of the Ottomans (5). 1457: Mosque: Great Mosque of Anau, Turkmenistan. 1458-1511: City: Cities of Junagarh, Champaner, Mahmudabad, founded by Mahmud Shah Begra of Gujarat, India (15). 1459: Palace: Topkapi (Gun Gate), a large complex of palaces covering an area of one hundred fifty acres drawn up. End of 15th Century: Mosque: Zinjirli Jami, Istanbul.</p>
1461-1510	<p>1465: Mosque: Blue Mosque, Tabriz. 1470: Mosque and Mausoleum: Sidi Abdul Rahman, Algiers. 1472: Madrassa: Bidar, Deccan, by Bahmani Sultan Mahmud Gawan. 1473: Palace: Cinili Kiosk at Topkapi Palace built under Mehmed II. 1474: Mausoleum: Sultan Qaitbai, Cairo. 1481~: Mosque, Madrassa, Hospital, Hostel, and Kitchen: Mehmed Fateh Kulliyesi (Complex), Istanbul, built by Sultan Mehmet II in seven years (5). 1484: Mosque, Madrassa, and Hospital: Beyazit II Kulleyisi (Complex), Edirne (3). 1485: Mosque: Davut Pasa Cami complex, Istanbul. 1490: Mausoleum: Timur, Gul-i-Mir, Samarqand. 1497-1503: Mosque, Madrassa, and Public Works: Turkey under Sultan Bayazid (more than ten). 1499: Mausoleum: Prince Cem Mustafa, Bursa. 1500-1566: Bazaar: Kapali Carsi (Covered Bazaar), caravanserai, warehouses, Istanbul covering an area of seventy-four acres was started under Sultan Mehmed and completed under Sulaiman (5). 1500~: Mausoleum, Madrassa, and Gardens: Construction of Maqbara Sheikh Saif ud din (d. 1334), Sheikh Muhy ud din (d. 1325), and Dar al-Huffaz Madrassa at Ardabil under the Safavid Shah Abbas (4). 1505: Mosque: Beyazit II Cami, Istanbul. 1506: Mosque, Madrassa, Hostel, and Kitchen: Bayazid I Kulleyisi (Complex), Istanbul (4). 1508: Caravanserai: Sultan al-Ghuri, Cairo. 1509: Mausoleum: Jam Nizam ud Din at Thatta, Sind. 15th Century: Mosque: Samarqand and Bokhara (2). 15th Century: Madrassa: Khargird. 15th Century: Mosque: Mosalla of Gawhar Shad in Herat.</p>
1511-1560	<p>1517: Administration: Ottoman system of land tenure introduced in Egypt and Syria. 1518: Mausoleum: Sikandar Suri, Khairpur, India.</p>

1520-66: *Administration: Sultan Sulaiman introduced reforms in the social and political structure.*

1520: Palace and Fort: Topkapi Sarayi complex, Istanbul (5).

1522: Mosque: Sultan Selim Cami, Istanbul.

1524: City: Safavid dynasty founder, Shah Ismail, moved the capital from Herat to Tabriz (5).

1524-76: City: The Safavid Shah Tahmasp moved the capital from Tabriz to Qazvin where he erected the palace and the royal mosque (5).

1526: Mosque: Panipat by the Mughal emperor Babar.

1532: Fort, Mosque, and Monastery: Din Panah complex, Delhi, by Humayun (3).

1530~: Mosque: Babari Mosque at Ajothya. This was demolished by a mob in 1992.

1534: Mosque: Safir, Algiers.

1535: Mausoleum: Hasan Khan, Bihar.

1535: Mosque and Madrassa: Mir i Arab, Bokhara, by Ubaid Ullah Khan (2).

1536: Mosque: Kalan in the complex of Payi Kalan (Foot of Sublimity) in Bokhara.

1536: Mosque: Jamali Mosque, build by Mughals.

1537: Mausoleum: Crown Prince Mustafa, Bursa, built by Sultan Selim II.

(Mustafa was the eldest living and capable son of Sultan Sulaiman. Mustafa was strangled on the orders of his father after he returned from a military campaign. This was an aftermath of palace intrigue involving Hurrem Hanem, the favorite Russian concubine of Sultan Sulaiman.)

1539: Mosque: Haseki Hurrem Cami complex, Istanbul.

1540-45: Roads: A vast road network along with caravanserais in India built by Sher Shah Suri during his five-year rule. The Grand Trunk Road between Peshawar to Calcutta, Agra to Burhanpur, Agra to Chittor, and from Lahore to Multan (10).

1540: Madrassa and Mosque: Haseki Hurrem Kulleysi, Istanbul, the first project by the architect Sinan (for Sultan Sulaiman's concubine Hurrem Hanem, who was from Russia) (2).

1541: Mosque: Qila Kunha by Sher Shah Suri.

1545: Fort: Rohtas Fort near Jhelum and upgrading of Old Fort, Delhi, by Sher Shah Suri.

1545: Mausoleum: Sher Shah Suri at Sasaram.

1548: Mosque and Madrassa: Mihrimah Cami, Uskudur, by Sinan for the daughter of Sulaiman I (2).

1548: Mosque: Sehzade Cami (Prince's Mosque) complex, Istanbul (2).

1551: Mosque: Ibrahim Pasa Cami by Sinan at Siliviri Gate, Istanbul.

1555: Mosque: Sinan Pasa, Besiktas, Turkey.

1556: Mosque: Begun in 1550, Sulaimania Mosque in Istanbul is completed. Designed by Sinan, it is a vast complex, including a one-thousand-student madrassa, a library, a hospice, and a soup kitchen. Its mosque was twice the size of the Sehzade Mosque (4).

	<p>1557: Mosque: Dukkala, Marrakech.</p> <p>1557: City: The Mughal emperor Akbar transferred his capital from Agra to Delhi. Work started on the magnificent Red Fort (5).</p> <p>1558: Mausoleum: Qasim Sheikh Kirmani, Bokhara.</p> <p>1560: Library: Ardabil, set up by the Safavids containing books in Farsi on history, literature, poetry, and arts. It included beautiful illustrated books such as poet Jami's <i>Haft Aurangs</i> (Seven Thrones) and Farid ud din Attar's mystic poetry book, <i>Mantiq al Taysr</i> (Conference of the Birds).</p> <p>1560~: Bridge: Twenty-eight-arch Buyukcekmece Bridge en route to Edirne by Sinan.</p> <p>16th Century (early): Bazaar: Badestan (Marketplace), Bursa.</p> <p>16th Century (late): Palaces: Topkapi Sarayi, Dolmabahce, and Beylerbeyi (3).</p> <p>16th Century: Fort: Bokhara Citadel built by the Shaybandi dynasty.</p>
1561-1610	<p>1561: Caravanserai: Edirne by Sinan under Vizier Rustam Pasa.</p> <p>1561: Mosque: Rustam Pasa, Istanbul, by Sinan for the grand vizier Rustam Pasa.</p> <p>1562: Mosque: Al-Muassin, Marrakech.</p> <p>1563: Mausoleum: Chor Bakr, Bokhara, by Abdullah Khan.</p> <p>1563: Library: Mashhad established by the Safavids containing Quran and scientific works.</p> <p>1564: Waterworks: Kirkcesme (forty springs), an elaborate water supply and storage system including five aqueducts by Sinan for Istanbul built under Mehmet II and Sulaiman I (6).</p> <p>1565: Mosque: Semiz Ali Cami, Babaeski, Turkey.</p> <p>1565: Mausoleum: Humayun's Tomb, Delhi, built by his widow Bega Begum during Akbar's reign.</p> <p>1566: Madrassa: Madai Khan, Bokhara.</p> <p>1566~: Caravanserai at Peyas on the Aleppo road by Sultan Selim II.</p> <p>1569: Bazaar: Badestan (Marketplace), Edirne, by Vizier Ali Pasa (Semiz, the fat).</p> <p>1569: Madrassa: Kukaltush, the largest in Bokhara.</p> <p>1570: Mosque: Sokollu Mehmet Pasa Cami by Sinan at Luleburgaz, Turkey.</p> <p>1570: Palace: Jodha Bai at Agra by Emperor Akbar.</p> <p>1570: Fort: Rajasthan, India, by Akbar.</p> <p>1570~: Madrassa: Ibn Yusuf, Marrakech, the largest in Maghreb.</p> <p>1571: Mausoleum: Maqbara Humayun, Delhi, built by Akbar's mother. Its architect was Malik Ghias of Herat, and it echoed the design of Sultan Uljeitu's tomb in Sultaniya.</p> <p>1571~: City: New capital Fatehpur Sikri, thirty-eight kilometers from Agra, built by Akbar in honor of the saint Salim Chishti. Important building included the fifty-four-meter Buland Darwaza (Lofty Gate) (higher than Timur's gate Shahr i Sabz), Palace (Panah Mahal), Jami Mosque, Drum House, Diwan i Am, and Diwan i Khas (10).</p>

1572: Mosque: Sokollu Mehmed Pasa (the Vizier), Istanbul, in remembrance for his wife Esmahan.

1572: Mosque and Madrassa: Luleburgaz on the Edirne road by Sokollu Mehmed Pasa (2).

1572: Mausoleum: Sarkhej, Gujarat.

1572: Mosque: Sidi Syed, Ahmadabad, India.

1573: Fort and Palace: Agra, reconstructed by Akbar using red stone.

1575: Mosque: Sultan Selim II Mosque, Badestan (Marketplace), Edirne.

1575: Fort and Palace: Lahore by Akbar. He moved his capital from Agra to Lahore.

1574: Palace: Yeni Sarayi (New Palace) at Topkapi Palace started under Murad III.

1574: Caravanserai: Khan al-Gumrak, Aleppo.

1574: Mosque and Madrassa: Selimiye Complex, Edirne, by Sinan for Selim II (2).

1576: Mosque: *The Great Friday Mosque of Granada demolished and replaced by the Church of St. Maria.*

1577: Mosque: Jami Mosque, Bijapur, Deccan.

1579: Palace: Harem Pavilion at Topkapi Palace.

1580: Mausoleum: Sheikh Salim Chishti at Fatehpur Sikri.

1580: Mosque: Zal Mahmut Pasa Cami, Eyup, by Sinan.

1581: Mosque: Semsî Ahmet Pasa Cami, Uskudur, by Sinan.

1581: Mosque: Kilic Ali Pasa Cami, Tophane, by Sinan.

1583: Fort and Palace: Allahabad by Akbar.

1583: Palace: Farah Bagh, Ahmadnagar, Deccan, by Sultan Murtaza Nizam Shah I.

1585: Mosque: Mesih Pasa Cami by Sinan (when he was over eighty-five).

1587: City: The Safavid Shah Abbas I (1587-1629) began relocating the capital from Qazwan to Isfahan (5).

1587-1629: Shah Abbas I built the world-famous Royal Square, Maidan i Shah, in Isfahan (3).

1588: Mosque: Nicanci Mehmet Pasa Cami by Sinan (when he was over eighty-five).

1588: *Architecture: Sinan Pasa, the foremost Ottoman architect of the Sulaimania Mosque in Istanbul and Selim Mosque in Edirne, died.*

1590: Madrassa: Abdullah Khan, Bokhara.

1591: Gateway: Char Minar, Hyderabad, by Sultan Mohammad Quli Qutub of Golconda.

1593: Palace: Badi, Marrakech, by Saadi al-Mansur.

1594: Mosque: The beautiful Blue Mosque complex, Istanbul, designed by Davut Aga and built under Vizier Cerrah Mehmet Pasa. (Davut Aga, Sinan's successor, was executed for his freethinking attitude in 1599 under the orders of Sultan Mehmet III.)

1595: Madrassa: Gazanfar Aga, built by the chief of the white eunuchs at the Topkapi Palace.

	<p>1596: City: Shah Abbas of Persia made Isfahan the capital of the Safavid empire.</p> <p>1599: Mausoleum: Khankah Faizabad, Bokhara.</p> <p>1600: Bazaar: Qaisariya, the two-story bazaar in Isfahan.</p> <p>1600: Caravanserai with one hundred forty rooms in Isfahan.</p> <p>1601: Mausoleum: Imam Raza, Mashhad, completed by Shah Abbas.</p> <p>1602: Bridge: Sio Se Pol (Thirty-Three-Arched Bridge), three-hundred-meter-long bridge on the Ziyanda (Life-Giving) River, Isfahan, erected by Allahwardi Khan.</p> <p>1606: Gardens: Hiran Minar resort near Lahore built by Jahangir in memory his pet antelope.</p> <p>1606: Church: Our Saviour Cathedral, Isfahan, sponsored by Shah Abbas for the Armenian community that was entrusted with the silk trade.</p> <p>1608: Library: Topkapi Palace, Istanbul, by Sultan Ahmet I.</p> <p>1609: Madrassa: Vizier Kuyucu Murat, Istanbul.</p> <p>1609: Madrassa: Koran School by Elmekci Ahmet Pasa, Istanbul.</p> <p>16th Century: Bazaar: Taq i Sarrafan (Money Changers' Market), Bokhara.</p> <p>16th Century: Bazaar: Taq i Zargaran (Goldsmiths' Market), Bokhara.</p> <p>16th Century (late): Palace: Saloon of Sultan Murad III at the Topkapi Palace.</p>
<p>1611-1660</p>	<p>1611: Museum: Chini Khana (House of Porcelain) in Ardabil set up by the Safavids containing 1,162 pieces of finest crockery.</p> <p>1612: Mosque: Begum Shahi, Lahore, built by Maryam Zamani, the formerly Hindu wife of Akbar and Jahangir's mother.</p> <p>1613: Mausoleum: Akbar at Sikandra near Agra.</p> <p>1616: Mosque: Masjid i Shah in Isfahan's royal square.</p> <p>1617: Mosque: Sultan Ahmad I (Blue Mosque) complex, Istanbul. Located at a picturesque site overlooking the Sea of Marmora, this largest and most famous mosque was started in 1605 under Architect Sedefkar Mehmed Agha for Sultan Mehmed III (3).</p> <p>1618: Mosque: Masjid i Sheikh Lutf Ullah in Isfahan's royal square.</p> <p>1620: Mosque: Sultan Ahmet I Cami complex, Istanbul.</p> <p>1620: Mausoleum: Kalkhuran, Ardabil, of Sheikh Jibril (d. 1359), father of Sheikh Safi.</p> <p>1620: Gardens: Shalimar Gardens, Kashmir, built by Jahangir for his wife Nur Jahan. Completed by Prince Khurram, the future Shah Jahan.</p> <p>1620~: Caravanserai, Agra, owned by Jahangir's wife Nur Jahan. It could accommodate three thousand travellers and five hundred horses, serving the most profitable trade route of India.</p> <p>1622: Mosque: Sidi Ali Baccini, Algiers, by the Italian Muslim Baccini.</p> <p>1622: Mausoleum and Madrassa: Nadir Diwan Begi, Bokhara (2).</p> <p>1622: Waterworks and Water-Storage Dam: Karanlik Bend under Osman II.</p>

- 1623-40: Palace: Revan Kiosk and Baghdad Kiosk palaces built for Murad IV at the Topkapi Palace celebrating his victories at Erevan and Baghdad (2).
- 1624: Mausoleum: Prince Khusrau, Allahabad.
- 1626: Mausoleum: Qutub Shah, Golconda.
- 1626: Mausoleum: Ibrahim Adil Shah II, Bijapur, Deccan.
- 1627: Palace: Summer Palace by Jahangir.
- 1627: Gardens: Mullah Alam Ilahi Tuni, who worked for the Mughal emperor Jahangir, designed elaborate hydraulics that supplied equal pressure for water fountains spread over different elevations (despite the lack of gradient at many places). His designs were used as gardens at Lahore, Hasan Abdal, Delhi, and Kashmir (4).
- 1627-58: Palaces: Magnificent palaces at Agra and Delhi built by Shah Jahan (1627-58) (2).
- 1628: Mausoleum: Maqbara Moin ud din Chishti, Ajmer, by Shah Jahan.
- 1628: Mausoleum: Maqbara Itamad ud Daula (father of Nur Jahan) built by Jahangir at Agra.
- 1628-58: Forts: Kabul and Lahore upgraded by Shah Jahan.
- 1628-58: Palaces: Chihil Satun (Forty-Pillared) and Diwan i Am (Audience Halls) at Lahore and Agra (2).
- 1629: Palace: Ali Qapu palace in Isfahan's royal square, built by Shah Abbas.
- 1630: Mosque: The Great Shah Mosque, Isfahan.
- 1635: Mosque: Wazir Khan, Lahore, built by Ilm ud din Ansari under Shah Jahan.
- 1635: Mosque: Bayram Pasa Cami, Istanbul, with a new design approach.
- 1636: Madrassa: Sher Dar (Lion's Door), Samarqand, by Yalangtush.
- 1636: City: Construction of the city of New Delhi started by Shah Jahan (5).
- 1636-40: Fort: Agra Fort upgraded by Shah Jahan.
- 1637: Mausoleum: Jahangir's Tomb, Lahore, built by Shah Jahan for his father.
- 1637: Palace: Complex at Agra by Shah Jahan including Mussaman Burj, Bangla Jahanara, etc. (In his last years, Shah Jahan was imprisoned here by his son Aurangzeb.)
- 1638: Palace: Baghdad Pavilion, Topkapi Palace, by Murat IV after the reconquest of Baghdad.
- 1640: Mosque and Fort: Dar al-Kabira, Meknes, Morocco, by the Merinids.
- 1640: Gateway and Garden: Ali Qapu (Lofty Gate or Sublime Portal) and royal garden, Isfahan, started by the Safavid Shah Abbas in 1590.
- 1641: Gardens: Shalimar Gardens, Lahore, built by Shah Jahan.
- 1645: Mosque: Moti Masjid (Pearl Mosque), Lahore, built by Shah Jahan.
- 1645: Mausoleum: Nur Jahan, Shahdara, near Lahore.
- 1646: Gardens: Chauburji Gardens, Lahore, built by Zeb un Nisa, daughter of Aurangzeb.

	<p>1647: Palace: Precinct contained the Chihil Satun (Forty-Pillared) Palace in Isfahan designed by the Safavid Shah Abbas I and built by Shah Abbas II.</p> <p>1648: Fort and Gateway: Shahjahanabad, Delhi.</p> <p>1648: Palace: Sunnet Odasi (Circumcision Pavilion) at the Topkapi Palace by Sultan Ibrahim.</p> <p>1648: Palace: Sawan (Rainy Seasons) Pavilion, Delhi, by Shah Jahan.</p> <p>1648: Palace: Priceless diamond-encrusted Peacock Throne, Delhi, by Shah Jahan. It was seized by Nadir Shah Afshar and taken to Tehran in 1739.</p> <p>1648: Mosque: Akbarabadi Begum by Shah Jahan.</p> <p>1648: Mausoleum: Shah Jahan completed Taj Mahal in Agra, the memorial to his wife Mumtaz Mahal who died in 1631 (5).</p> <p>1650~: Mosque: Shah Jahan Mosque, Thatta, Sind.</p> <p>1650: Bridge: Khwaju Bridge on Ziyanda River, Isfahan, built by the Safavid Shah Abbas II.</p> <p>1650: Waterworks: Water-storage dam, Turkey.</p> <p>1652: Mausoleum: Abdul Aziz Khan, Bokhara.</p> <p>1656: Mausoleum: Adil Shah, Gol Gumbad (Round Dome) at Bijapur, Deccan. With its forty-four-meter diameter, it was second in size to Saint Peter's in Rome.</p> <p>1656: Mosque: Masjid Jahan Numa (World's Pride) by Shah Jahan.</p> <p>1656: Mosque: Jami Masjid (Grand Mosque), Delhi, built by Shah Jahan.</p> <p>1660: Mosque: Moti Masjid (Pearl Mosque), inside Red Fort, Delhi, built by Aurangzeb.</p> <p>1660: Madrassa: Tilla Kari (The Gilded One), Samarqand.</p> <p>1660~: Garden: Registan Square, Samarqand, by Yalangtush (2).</p> <p>17th Century: Caravanserai on the Ludhiana-Ambala road in Punjab, India.</p> <p>17th Century: Garden: Chahar Bagh (Four-Fold Garden), a magnificent four-kilometer-long boulevard, Isfahan (2).</p> <p>17th Century: Palace and Garden: Amber, Rajasthan, India (2).</p>
1661-1710	<p>1662: Mosque: Pearl Mosque, the most beautiful small mosque built by Aurangzeb in Delhi.</p> <p>1663: Mosque: Yeni Valide Cami, Golden Horn, Istanbul, started in 1598 under Architect Davud Aga and completed under Mustafa Aga.</p> <p>1669: Palace and Garden: Hasht Bihisht (Paradise Eight) Palace and Bagh i Bulbul (Nightingale Garden), Isfahan, completed by the Safavid Shah Sulaiman I. Its plan influenced the design of Taj Mahal, Agra.</p> <p>1673: Mosque: The magnificent Badshahi Mosque, Lahore, one of the largest in the world built by Aurangzeb (2).</p> <p>1675: Mosque: Sidi Mahra, Tunis, by the Hafsids.</p> <p>1676: Madrassa: Koprulu Mehmet Pasa (started 1660) completed by Fazil Pasa in 1676.</p>

	<p>1688: Madrassa: Khurjun, Khiva.</p> <p>1703: Mosque: The Blue Mosque, Istanbul, was built by Sultan Ahmad III (5).</p> <p>17th Century: Mosque: Buland (High) Mosque, Bokhara.</p> <p>17th Century: Mosque: Khoja Zain al-Din, Bokhara.</p> <p>17th Century: Mausoleum: Khankah Baha ud din, founder of the Naqshbandi Sufi order, Bokhara, an important place of pilgrimage.</p>
1711-1760	<p>1712: Palace: Dar al-Aziza, Algiers.</p> <p>1719: Library: Sultan Ahmet III's library in Topkapi Palace (Tulip Period).</p> <p>1720: Madrassa, Mosque, and Water Fountain: Vizier Damat Ibrahim Pasa, Uskudur. (The vizier was executed during the revolt of 1730).</p> <p>1722: Madrassa: Madar i Shah, Isfahan, by the Safavid Shah Hussain.</p> <p>1750: Waterworks and Storage Dam: Topuz-lu Bend, Turkey, built under Mahmut I.</p> <p>1753: Mausoleum: Safdar Jang, Delhi, the last great Mughal building.</p> <p>1755: Mosque and Library: Nuru Osmaniye Cami, Istanbul, built in baroque style under Sultan Mahmut I.</p> <p>18th Century: Madrassa: Vakil, Shiraz.</p> <p>18th Century: Palaces: Dar Mustafa and Princesses, Algiers (2).</p> <p>18th Century: Palace: Bardo, Tunis.</p> <p>18th Century: Madrassa: Madar i Shah, Isfahan.</p> <p>18th Century: Madrassa: Vakil, Shiraz.</p> <p>18th Century: Fort: Fort complex Ichan Qila, Khiva (2).</p>
1761-1810	<p>1761: Mosque: Ayazma Cami, Uskudur, built under Mustafa III.</p> <p>1761~: Mosque: Laleli Cami (Tulip Mosque) started by Mustafa III.</p> <p>1769: Mosque: Gulhane Park Cami built by Zeyneb Sultan, daughter of Ahmet III.</p> <p>1771: Mosque and Madrassa: The mosque complex in Istanbul built by Mehmed II suffered great damage due to an earthquake in 1766. It was reconstructed in 1771 by Mustafa III.</p> <p>1774: Waterworks and Storage Dam: Ayvad Bend, Turkey, built under Mustafa III.</p> <p>1776: Mosque and Madrassa: Beylerbey Cami, Bosphorus, built by Abdul Hamit I in memory of his mother (2).</p> <p>1784: Mosque: Imambara (Shia Shrine) Asaf ud Daula, Lucknow.</p> <p>1787: Mosque: Cami built by Sebsefa, wife of Abdul Hamit I.</p> <p>1789: Palace: Dar al-Baid, Marrakech, by Mulai Abdullah.</p> <p>1789: Mosque: Great Mosque of Khiva.</p> <p>1794: Mosque: Kwacha, Algiers, by Pasa Hasan.</p> <p>1795 : Mosque: Mihrisah Sultan Cami, Eyup.</p> <p>1799: Palace: Dar ul Hamra, Algiers.</p> <p>1799: Waterworks and Storage Dam: Valide Bend commissioned by Mihrisah Sultan, mother of Sultan Selim III.</p> <p>1800: Madrassa and Mausoleum: Built by Sah Sultan, sister of Sultan III.</p>

1811-1860	<p>1816: Mosque: Imambara (Shia Shrine), Faizabad, near Lucknow.</p> <p>1818: Mausoleum: Near Fatih Cami, built by Naksidil, mother of Mahmut II.</p> <p>1818~: Mosque: Kucuk Effendi Cami, built by Mahmut II.</p> <p>1818: Education: Establishment of colleges of engineering, medicine, and sciences and military academies by Muhammad Ali in Egypt.</p> <p>1819: Madrassa: Divan Yolu, built in honor of Cevri Kalfa, supervisor of the harem.</p> <p>1825~: Madrassa: Kutlugh Murad Inak, Khiva.</p> <p>1826: Mosque: Nusretiye Cami, built in the eclectic Baylan style under Mahmut II celebrating his victory over the Janissaries.</p> <p>1828: Waterworks and Storage Dam: Kucukcekmece Dam.</p> <p>1832: Caravanserai: Ali Quli Khan, Khiva.</p> <p>1835: Tower: Twenty-eight-meter high, fourteen-meter diameter Kaltar Minar, Khiva (designed for seventy-meter height).</p> <p>1838: Palace: Tash Kauli, Khiva.</p> <p>1839: Waterworks: A large (100 meters long and 15.5 meter) dam built under Mahmut II.</p> <p>1842-53: Palace: Dolmabahce Sarayi (Filled Garden Palace) palace complex designed by the Greek architects Garabed Baylan and Nikogos Baylan built under Abdel Mecit (2). Its built-up area is approximately 11.2 acres with a cost equivalent of 35 tons of gold. Fourteen tons of gold was consumed just to decorate its ceilings. It has the largest collection of Bohemian and Baccarat crystal chandeliers in the world, and one of its great staircases has banisters made of Baccarat crystal.</p> <p>1848: Mosque: Mohammad Ali, Cairo, built to designs by the Greek architect Yusuf Bushnuq on the lines of Yeni Valide Mosque in Istanbul.</p> <p>1850~: Palace: Kurinysh Khan, Khiva.</p> <p>1850~: Mosque: Hirka Serif Cami, for preserving the robe of the Prophet, a relic that was in the possession of the descendents of Hazrat Uways Qarni. This mosque was built in the Baylan style.</p> <p>1850: Mosque: Saber Mosque and Zawiya, Kairouan.</p> <p>1850: Mosque: Dolmabahce Cami, Istanbul.</p> <p>1850: Mosque: Ortakoy Cami is one of the most striking buildings in Istanbul.</p> <p>1855: Tower: Kalta Minar, Khiva.</p> <p>1859: <i>Technology: Construction of Suez Canal started under Ferdinand de Lesseps.</i></p> <p>19th Century: Mosque: Sipahsalar, Tehran.</p> <p>19th Century: Mosque: Dar ul Makhza, Marrakech, by the Alawids.</p> <p>19th Century: Mausoleum: Karbala upgraded.</p> <p>19th Century: Mausoleum: Samarra, Iraq.</p> <p>19th Century: Mausoleum: Khankah Pahalwan Mahmud (d. 14 Century), Khiva.</p>
1861-1910	<p>1865: Palace: Beylerbeyi Sarayi, Istanbul, in neorenaissance style was designed by the Baylan family and built by Sultan Abdul Aziz.</p>

	<p>1866: <i>Education: American University of Beirut was established by the Protestant missionaries.</i></p> <p>1869: <i>Technology: Suez Canal opened for traffic.</i></p> <p>1871: <i>Mosque: Pertevniyal Sultan Cami built by the mother of the sultan.</i></p> <p>1871: <i>Madrassa: Mohammad Rakhim Khan, the largest in Khiva.</i></p> <p>1875: <i>University: Aligarh College, later the university founded by Sir Syed Ahmad Khan.</i></p> <p>1876: <i>Mosque: Nasir ul Mulk, Shiraz, by the Qajar Nasir ud din Shah.</i></p> <p>1886: <i>Mosque: Yildiz Cami, Istanbul, designed by Sarkis Baylan.</i></p> <p>1900: <i>Mosque: Bahia Mosque and gardens, Marrakech.</i></p> <p>1860-1947: <i>Developments in India by the British (since these are not indigenous, these are not included in the count):</i></p> <p><i>railways and road networks</i></p> <p><i>telegraph system</i></p> <p><i>power generation</i></p> <p><i>agriculture-based industry</i></p> <p><i>irrigation canal network</i></p> <p><i>educational infrastructure: high schools and colleges at the district level and universities at the provincial level</i></p>
1911-1960	<i>Data about indigenous developments is sparse.</i>

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Appendix 4

Tabulation of Military Matters

General References: HPM, JJ, and DS

a. Warfare, Strategy, and Technology

Army Composition:

Umayyad Army: Fifty to one hundred thousand troops, mainly Arab.

Umayyad (Spain): Berbers, Arabs, Slavs, and Spanish.

Abbasid Army: Arabs, Khurasanis, and Turks (Farghani, Khwarizmi, Bukharis) and Daylamis.

The Daylamis from the Caspian Sea region were a mountainous race. They were excellent foot soldiers who used a wall of javelins, battle-axes, and tall shields for both offense and defense. They also served with the Buyids and the Ghaznavids.

Fatimid Army (969-1171) Diversified: Berbers, Turks, Sudanese, lesser number of
Arms: Slavs, and Armenians.

Javelin, lance, sword, bow, shield, coat of mail, and helmet.

Damascene swords were famous for their strength and flexibility and coveted in Europe. The manufacture involved adding carbon and other materials to the molten steel. This technology was carried over to Toledo, Spain.

The bow was double curved and reinforced, which increased its range of one thousand five hundred feet. The arrows could penetrate armor up to a distance of five hundred feet. Crossbow was not used until its modification for firing from horseback.

Strategy:

Offensive: Force concentration with sudden maneuvers and encirclement.

Defensive: Trench warfare. Use of features of the terrain.

Cavalry:

Muslim army horses were bred for speed and endurance. Cavalry used bowmen for long-range engagement and lance and sword for near range. European warhorses used during the Crusades could weigh twice as much. They were strong enough to carry a knight in full armor in addition to special armor for the horse. The drawback of cavalry was that it needed large grazing grounds nearby, and many campaigns were cut short due to the shortage of fodder.

Siege Warfare:

During Crusades, siege warfare grew in importance. Muslims had to learn quickly the techniques in the use of siege arms and explosives (naphtha).

Siege Arms:

Mangonel (Manjaniq), a swinging beam to throw a stone or incendiary projectile.

Trebuchets could launch a payload of five hundred pounds up to one thousand feet.

Ballista (Arrada) hurled projectiles through torsion of ropes.

Large crossbow (Qaws al-Ziyar) operated by several persons with a range of one thousand two hundred feet

Tower (Burj).

Battering ram (Kabsh).

Explosives: naphtha (Greek fire). This was done by specially trained troops (Naffat). The secret ingredient that was added to *naft* (raw petroleum) was saltpeter-potassium nitrate. The troops carried the load on high-speed horses into the enemy ranks before exploding it.

Use of incendiary weapons was the deciding factor in the defeat of the Crusader army by Turan Shah at the battle of Mansura in 1250. (Ref: DS).

Mining (Naqb) tunnels dug under the foundation of ramparts were supported by wooden beams, which were set alight causing collapse. Cannons came in extensive during the siege and conquest of Constantinople in 1453.

Firearms:**Cannon (Makhula, Tope):**

1248: Primitive cannons were in use in Spain.

1365-76: Mamluks: Probable introduction of cannon in Cairo and Alexandria.

1413-21: Ottomans: Introduced by Sultan Mehmed II.
Used against cities: Istanbul (1422 and 1453), Adaliyyah (1424),
and Cornith (1446).

Arquebus Gun (Tafung):

1440: Ottomans: Used for the first time in the Hungarian campaign.

Supercannon:

Twenty-five-foot-long supercannons were built by Urban, a Hungarian. These were capable of launching a quarter-ton projectile over a mile. Their first time battlefield use was in 1448 in Kosovo. During the siege of Constantinople in 1453, due to transportation difficulties and their weight, the supercannons were cast right on the battlefield.

Battlefield Organization:

Vanguard (Muqaddima)
Center (Qalb)
Right wing (Maymana)
Left wing (Maysara)
Rear guard (Saqa)

Defensive Line of Battle:

First rank: archers
Second rank: infantry
Third rank: cavalry

Offensive:

Headlong: Concerted and repeated cavalry charges. Combined action by archery and infantry units.

Feigned (false retreat) to lure and encircle and destroy the enemy using prepositioned troops from the rear.

Transport:

Draft animals. Lack of wheeled transport due to road conditions.

Food Supply:

Grains and supplies. Accompanying herd (cattle, goats, etc.) used for meat.

Payment Modes:

Spoils of War (Ghanima)

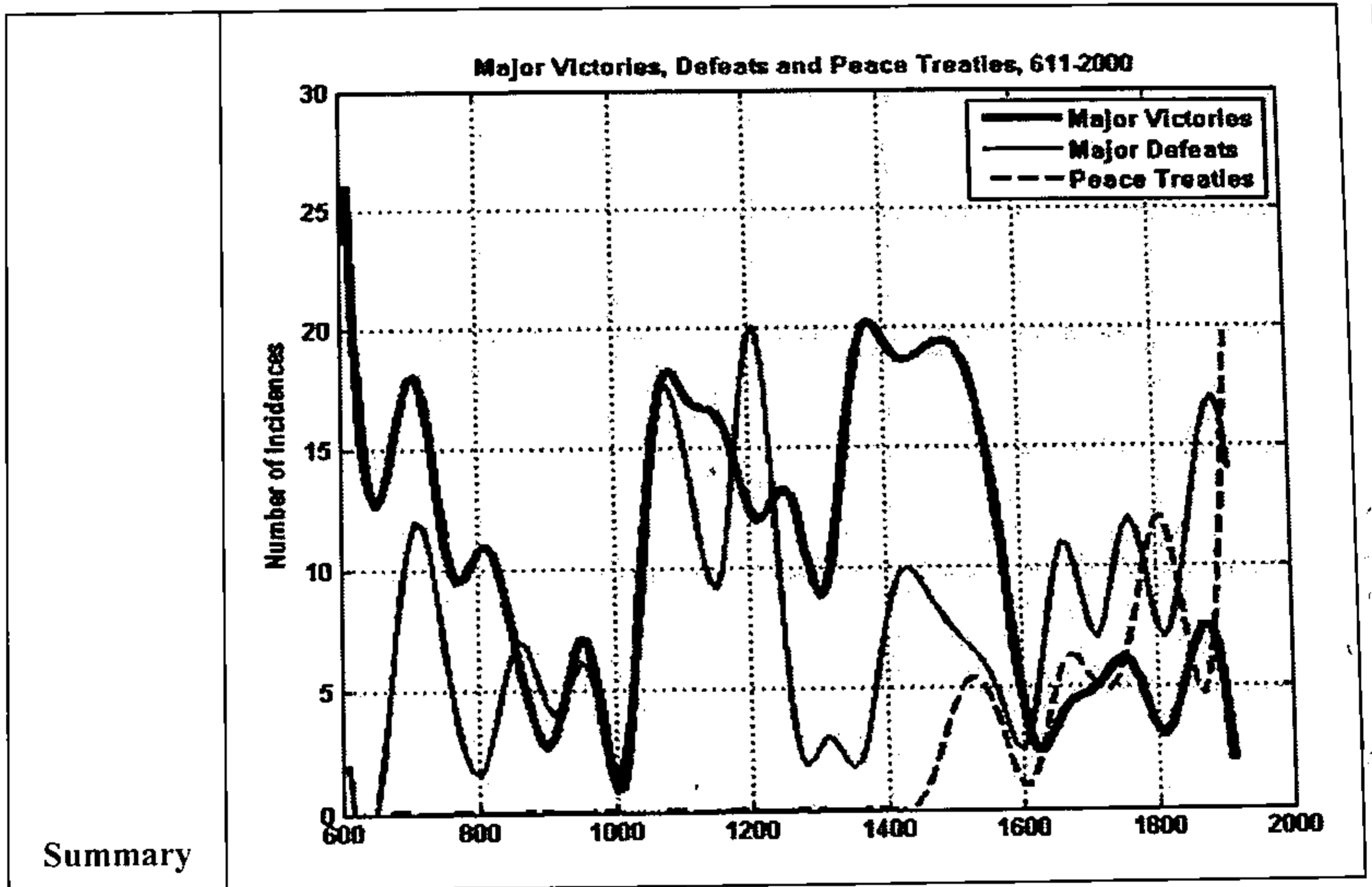
Salary and Allowances (Ata)

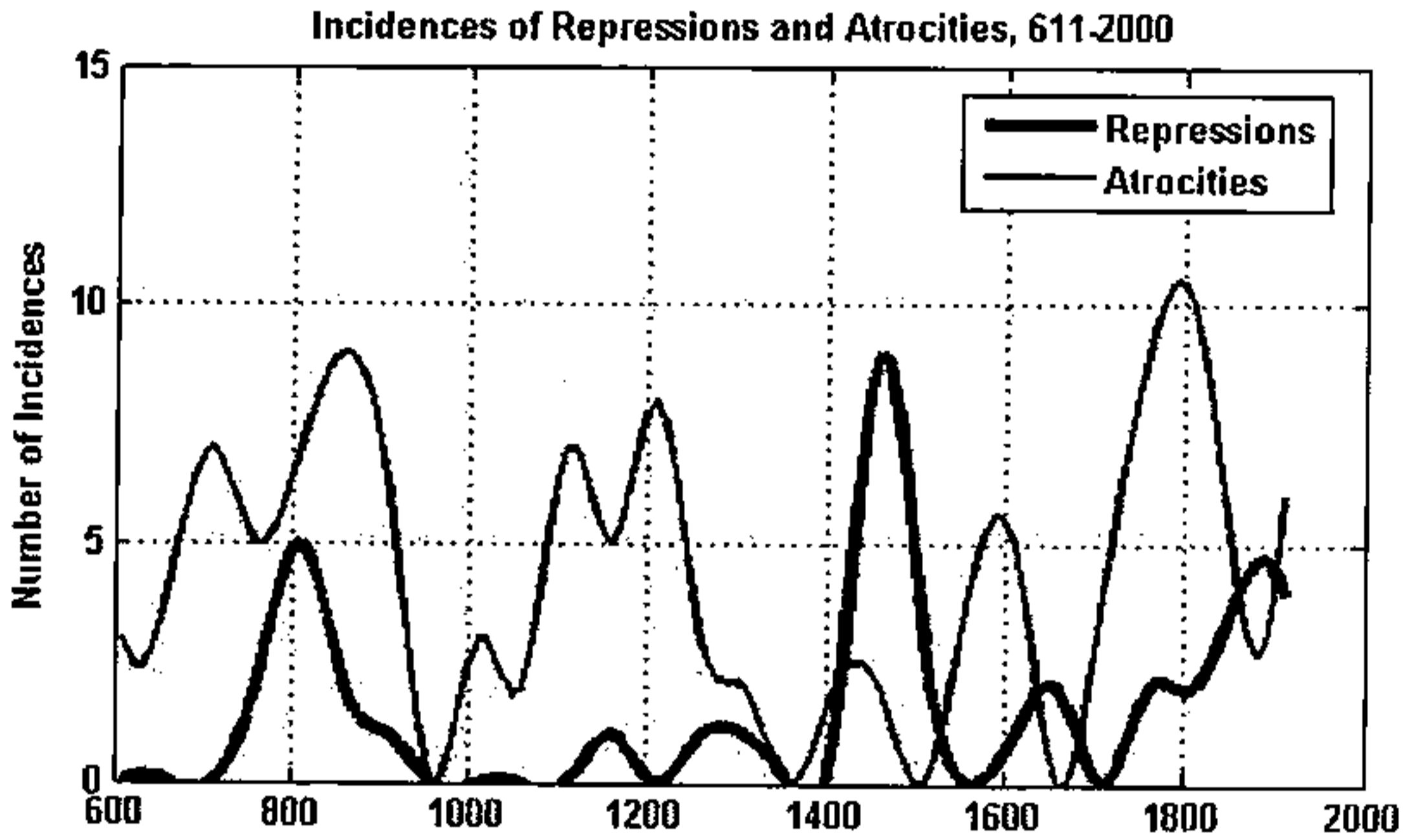
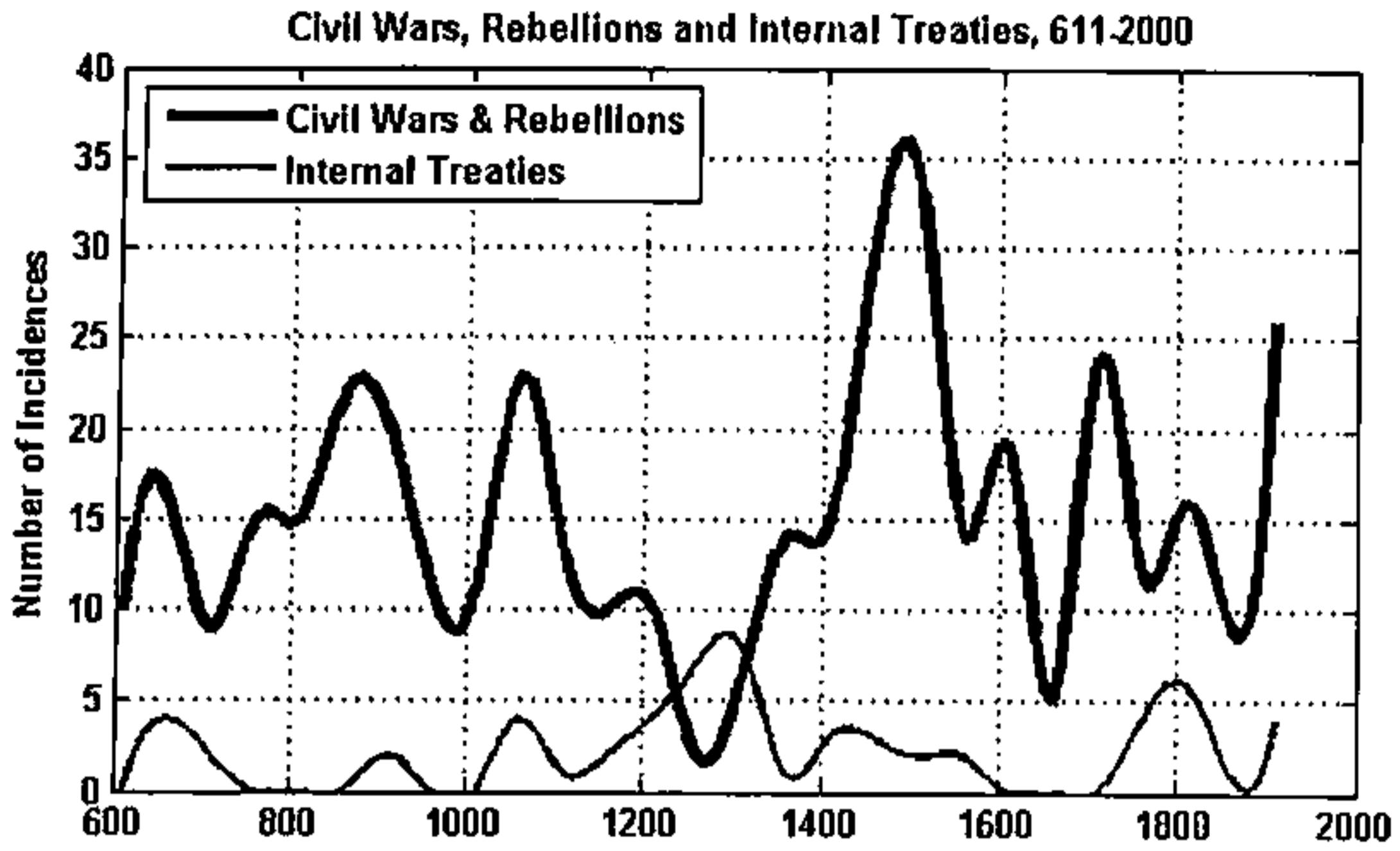
Land Produce (Iqta)

During the Mamluk period, a soldier was entitled to revenues from the land. This meant that at the time of harvest, the soldier wanted to be on the land and not on a campaign. Sultan Saladin being an able manager was able to sustain his operations uninterruptedly during the entire 1189-1190 campaign against Crusader forces at Acre.

b. External Battles and Internal Rebellions

Ref: LB





Time Line
(fifty-year
interval)

Events

611-660

Battles Won:

629: Mautah, Karak, Jordan: Commanders Zayd bin Haris, Jaafer bin Abu Talib, Ibn Rawahah, and Khalid. Bin Walid with three thousand soldiers successfully defended against Theodore's one hundred thousand.

632: Tabuk: Campaign against Ghassanids, allies of Byzantines. Byzantine forces withdrew.

633: Salasil: The battle of Chains against the Persian Sassanids was the first battle outside of Arabia won by Khalid bin Walid (during Caliph Abu Bakr's times).

- 633: Wajala, Iraq: Khalid bin Walid used brilliant tactics (double envelopment) to defeat a numerically superior Persian Sassanid army.
- 633: Ein al-Tamr: Won against Christian Arab allies of the Sassanids. Khalid bin Walid personally captured the commander. He also won the battle of Hira against Lakhmid tribe, allied to Sassanids.
- 633: Areopolis, Dathin, Syria: Muslims defeated Byzantine Romans.
- 634: Zumail, Iraq: Khalid bin Walid destroyed a Sassanid army.
- 634: Ajnady, Syria: Under generals Khalid bin Walid, Shurahbil, Amr bin al-Aas, Muaz bin Jabal, Yazid and Abdur Rahman bin Abu Bakr, Muslims achieved a decisive victory over the big army of Byzantine ruler Theodore, even with a modest cavalry of five hundred to eight hundred camels.
- 634: Marj al-Rahit, Qarteen, and Dathin: Battles near Damascus won against the Ghassanids.
- 636: Yarmuk, Jordan: Khalid bin Walid with ten thousand soldiers defeated Theodore's one hundred thousand in a six-day long battle. Byzantine forces met with complete disaster. It is regarded as **one of the most important battles of history.**
- 636: Qadsiyyah, Persia: Saad bin Abi Waqas with thirty thousand soldiers defeated Sassanid Rostam Farrokhzad's one-hundred-thousand-plus soldiers, inflicting twenty-thousand-plus enemy casualties.
- 637: Jerusalem: Khalid bin Walid defeated a Byzantine army at Hazir near Damascus. After the conquest, it was agreed to present the keys of the city to the caliph Hazrat Omar in person who travelled from Medina accompanied by a single attendant. He arrived in humility, dressed as a pilgrim rather than as a world conqueror.
- 637: Iron Bridge, Orontes River near Antioch: Khalid bin Walid won a major victory causing over ten thousand Byzantine casualties.
- 640: Heliopolis, Alexandria, Egypt: Under Amr bin al-Aas against the Byzantine ruler Theodore.
- 640: Caesarea, Lebanon: Capture of the port marked the end of the Byzantines in Syria.
- 641: Persia: Khuzestan, Mosul, and Babylon were conquered.
- 642: Nihawand, Hamadan, Zagros Mountains, Persia: Nauman bin Muqrin defeated the one-hundred-fifty-thousand-strong army of Yazdgird III. This battle is called the victory of victories over the Sassanid.
- 644: Tripoli, Lebanon: Captured by Muslims.
- 644: Herat, Afghanistan: Captured by the Muslim army.
- 646: Nikou, Egypt: Under Amr bin al-Aas against Byzantine ruler Manuel.
- 647: Tunisia: Byzantines defeated at Subaytilah.
- 649: Persepolis, Persia: Center of Zoroastrianism conquered. Yazdgird III was murdered in a palace revolt.

649: Cyprus: Muslim navy conquered Cyprus.

650: Balanjar: Against the Khazar tribes near Caspian Sea followed by victories in Armenia.

653: Rhodes: Muslims captured Mediterranean island of Rhodes.

655: Lycia: Major naval victory achieved over Byzantines. (Hazrat Osman was assassinated in 656. After this, due to the eruption of civil war between Hazrat Ali and Emir Muawiya, there was a ten-year lull in campaign against the Byzantines.)

Battles Lost:

634: Bridge, Kufa: Persian Bahman using war elephants defeated Abu Baeda's force. Two thousand Muslims were killed, and two thousand were drowned.

645: Alexandria: Byzantine fleet captured the city.

Campaigns Launched:

634: Naval Battle, Dathin, al-Safari: Against Byzantines but the result was undecided.

Rebellions and Civil Strifes:

630: Hunayn: Decisive victory against Bedouin tribesmen of Hawazin around Taif.

630: Yamama: Khalid bin Walid forces defeated the forces of Musailma, the false prophet.

632: Ghamra: Khalid bin Walid forces defeated the forces of Buzakha.

633: Naqra: Khalid bin Walid forces defeated tribal rebels.

633: Daumat al-Jandal: Khalid bin Walid forces defeated the forces of Christian Arab tribes.

633: Zafar: Khalid bin Walid forces defeated the forces of Salma, a false prophet.

650: Medina: Political unrest against the caliphate of Hazrat Usman.

656: Jamal, Battle of the Camel: Between Hazrat Ali and Hazrat Ayesha with Hazrat Talha and Zubair in which the later were both killed with a huge loss of ten thousand Muslim lives.

657: Siffin, Battle of Siffin: Took place between Hazrat Ali and Emir Muawiya. The bloodiest battle was indecisive, but it involved huge and unprecedented loss of up to seventy thousand Muslim lives.

658: Nahrawan, Iraq: Major defeat for Kharajis by Hazrat Ali.

Atrocities:

644: Medina: Hazrat Omar was assassinated by Persian Abu Luluah Firouz.

656: Medina: Assassination of Hazrat Osman in brutal circumstances abetted by Abdur Rahman, the son of Hazrat Abu Bakr.

656: Siffin: Murder of notable companions of the Prophet including Hazrat Talha and Zubair.

661-710

Battles Won:

- 664: Southern Punjab: Mohalib attacked and captured Multan.
 667: Chalcedon, Asia Minor: Captured by the Ummayyad forces.
 667: Sicily: Conquered in a naval expedition.
 670: Tunisia: Conquered by Uqba ibn Nafi. City of Kairouan was established.
 670: Khorasan: Garrison city of Merv was established.
 681: Morocco: Uqba ibn Nafi extended the empire to Algeria and Morocco. Riding into the Atlantic Ocean beach, he declared to his followers that with Allah as his witness, he could proceed no further.
 692: Sebastopol, Black Sea: Umayyad forces defeated Byzantine Justinian II helped by the defection of twenty thousand Slavs.
 694: Khorasan, Sind, and Transoxiana: Consolidation under Hajjaj bin Yusuf.
 698: Carthage, North Africa: Hassan ibn Nauman defeated the Byzantines with heavy loss of their lives.
 710: Spain: First foray and reconnaissance of Andalusia was attempted.

Battles Lost:

- 650~: Balangao, Central Asia: Loser Ibn Rabiya. Hazards (catapults used).
 677: Syllaeum, Aegean Sea: Byzantine navy used Greek fire. This was a major loss for Muslim naval fleet. Blockade of Constantinople failed.
 690: Syria: Byzantines aware of internal dissensions of the Umayyads under Caliph Abdul Malik attacked Syria. There was a truce under which the Arabs agreed to pay 1000 gold pieces every week to the Byzantines.

Campaigns Launched:

- 669: First Siege of Constantinople: Seven-year siege. Army dispatched by Emir Muawiya.
 672: Naval, Anatolia: Attack on Constantinople.
 674-78: First Siege of Constantinople: Was unsuccessful but marked the first landing on **European territory**.

Rebellions and Civil Strifes:

- 671: Kufa: Revolt by Kharajis. Crushed by Ziyad.
 680: Karbala, Iraq: Tragic Shahadah of Imam Hussain and his family by Yazid's army. This martyrdom became the defining episode for the emergence of the Shia sect.
 680: Tribal Feud: Between the Qais and the Kalb tribe affected the administration
 681: Berbers: Uqba ibn Nafi, the Muslim conqueror of the West, was killed by the chieftain Kusayla. His successor, the priestess Kahina, temporarily wrested control of the Maghreb. Hassan ibn Nusayr restored in 698, who encouraged Berber tribes to convert to Islam.

683: Hejaz: Abdullah ibn Zubair declared an alternate orthodox caliphate. Umayyad army retook Medina.

684: Basra: Kharajis revolt led by Nafi ibn Azraq against Abdullah ibn Zubair failed.

685: Kufa: Shia revolt led by al-Mukhtar in support of Mohammad ibn Hanifiyya, s/o Hazrat Ali.

685: Kufa: Umayyad officials who were associated with the Shahadah of Imam Hussain were hunted down and put to death. These include Shimar, Omar bin Saad, and others.

(Note: There was a four-way conflict going on: between the Alawi Shias, Kharajis, Umayyads, and Abdullah ibn Zubair of Mecca).

686: Najd: Kharajis took control of Najd until 692.

686: Battle of Zab: Ubayd Ullah ibn Ziyad, the Umayyad governor, was killed in battle with Ibn Ashtar.

687: Kufa: Al-Mukhtar along with eight hundred of his adherents were besieged and later killed by Musab, brother of Abdullah ibn Zubair in 687.

691: Kirkisiya: Musab ibn Zubair was cornered, brutally slain, and mutilated on the orders of Abdul Malik.

692: Mecca: Revolt and the death of **Abdullah ibn Zubair** by Umayyad general Hajjaj bin Yusuf's army. Kaaba was burnt in the process.

697: Egypt: Unrest of Copts due to high taxation.

697: Oxus: Umayyad general Muhallab defeated the Kharajis of the Azraqi sect.

701: Neo-Kharajis: Led by Ibn al-Asharth (Qadirites), they questioned divine sanction of Umayyad caliphs' (brutal) rule.

Atrocities:

661: Hazrat Ali: Assassination of Hazrat Ali by Kharajis, his former allies.

680: Karbala, Iraq: Tragic Shahadah of Imam Hussain and his family by Yazid's army. This martyrdom became the defining episode for the emergence of the Shia sect.

685: Umayyads: Marwan I who succeeded Yazid, s/o Muawiya, married Yazid's widow. Marwan I, wanting to name his son Abdul Malik as successor instead of her son Khalid by Yazid, prompted her to strangle the caliph.

692: Mecca: Revolt and the brutal death of Abdullah ibn Zubair by the Umayyad general Hajjaj bin Yusuf under Caliph Abdul Malik. It is for the first time that the **sanctity of the Mecca is violated.**

Positive Events:

691-92: Jerusalem: Dome of the Rock was built on the orders of Caliph Abdul Malik.

694: Administrative and economic organization in Iraq by Hajjaj bin Yusuf.

	<p>698: Monetary Reform: Coinage issued. 705-715: Walid I: Consolidation of the biggest expansion of the empire.</p> <p>Negative Events: 684: Plague epidemic in Syria, Egypt. and Iraq.</p>
711-760	<p>Battles Won:</p> <p>711: Sind, India: Raja Dahir was defeated by Mohammad bin Qasim who campaigned along the Indus River reaching Multan.</p> <p>711: Gaudalete, Spain: Tariq bin Ziyad with seven thousand men defeated and killed the Visigoth king Roderick in Guadalquivir River (Wadi Bakka Kabir). <i>Gibraltar (Jabal al Tariq, Rock of Tariq) is named after him.</i></p> <p>712: Cordoba, Spain: Conquered by Muslim forces.</p> <p>712: Bokhara, Central Asia: Qutayba ibn Muslim captured this important trading post.</p> <p>712: Seville, Spain: Conquered by Musa bin Nusayr.</p> <p>717: Toledo, Spain: Toledo surrendered to Musa bin Nusayr.</p> <p>713: Samarqand, Bokhara, Khwarizm, and Farghana: Conquered by Qutayba ibn Muslim.</p> <p>722: Balanjar, Caspian Sea: Conquered by al-Jarrah.</p> <p>720: Narbonne, France: Al-Samh al-Khawlani and was renamed Arbunah.</p> <p>720: Sardinia: Conquered. Campaign for Sicily began. Islamic presence in southern Italy.</p> <p>723: Balanjar: Jarrah ibn Abdullah campaigned against the Khazar tribes near Caspian Sea.</p> <p>731: Mosul, Iraq: Conquered by the Umayyad prince Maslamah. Khazar's ruler Barjik was killed.</p> <p>731: Ardabil, Central Asia: Prince Marwan defeated Khazar's ruler Hazer Tarkhan.</p> <p>732: Balanjar: Umayyad prince Maslamah defeated the Khazar and advanced toward Samandar.</p> <p>732: Bordeaux and River Garonne, France: Conquered by Abdur Rahman al-Ghafiqi. Duke Odo was killed.</p> <p>736: Tbilisi, Georgia: Conquered by the Umayyad Marwan II.</p> <p>737: Avignon, France: Yusuf al-Fahri resisted siege by Charles Martel.</p> <p>751: At lakh, China: Arabs defeated a Chinese army under Gao Xiangzi on Talas River, Kazakhstan.</p> <p>Battles Lost:</p> <p>717: Naval: Byzantines defeated an Arab naval fleet.</p> <p>718: Second Siege of Constantinople: Maslamah (b/o Caliph Umar II), two thousand ships and one hundred thousand soldiers lost in naval battles and storms.</p>

721: Toulouse, France: Using envelopment tactics, Odo of Aquitaine defeated the Arab army under Samh al-Khawlani that was besieging the city.

722: Covadonga, Spain: Pelayo Asturia defeated general al-Qama who was killed. This event marked the start of **Reconquista** that was finally completed seven hundred seventy years later in 1492.

730: Ardabil, Iraq: Al-Djarrah was killed. Winner Khazar's ruler Barjik mounted al-Djarrah's head on his throne. Cause of defeat: Muslim Mawalis abandoned the battlefield. Army outnumbered.

732: Tours, Toulouse, France: Charles Martel's forces surprised Abdur Rahman al-Ghafiqi's forces in the forests of the Loire Valley on a cold rainy day in October. Arab forces were not equipped for fighting in that terrain and weather. Abdur Rahman, the governor of Andalusia, died. There were huge casualties, thirty-three thousand Muslims and twenty thousand to eighty thousand Franks.

737: River Berre, France: Major victory by Charles Martel over an Arab army sent to the besieged Narbonne (Arbunah).

737: Nîmes, France: Charles Martel devastated Nîmes, Agde, Béziers, and Maguelonne.

739: Akroinon, Anatolia: Byzantine Louis III defeated Sulaiman, b/o Caliph Hisham Abd al-Malik.

745-746: Cyprus: Aware of weaknesses of later Umayyad caliphs Walid II, Yazid III, Ibrahim, and Marwan II, Byzantine emperor Constantine V attacked Syria and captured Cyprus.

747: Ceramea: Byzantines destroyed a large Arab fleet.

759: Narbonne, France: Pepin III, s/o Martel, captured Narbonne. **Muslims' rule in France was practically over.**

Rebellions and Civil Strifes:

720: Kharaji: Revolt in Basra led by Yazid ibn Muhallah who, along with his family, was killed.

725: Egypt: Coptic revolt against high taxes lingered for two years.

734: Khorasan: Rebellion by al-Harith for fiscal equality and equal pay for Arabs and Mawalis.

736: Kufa: Unrest fuelled by the killing of Shias by undercover Umayyad agents.

740: Berber Revolt: Caused by the harsh policies of governor Ibn Habhab. It was the first successful succession from the Muslim state. It was led by Maysara al-Madghari of Tangier who belonged to the Kharaji sect. In 741, many Arab nobles were killed. Brought under control in 743.

744: Anti-Umayyad revolt by Abdullah ibn Muawiya with support of Mawalis against Caliph Ibrahim

746: Kharaji Revolt: In Iraq.

747: Khorasan: Start of Abbasid revolt by Abu Muslim. Ibrahim the Imam was captured.

January 750: River Zab, Iraq: Umayyad caliph **Marwan II defeated by combined Shias, Abbasids, and Persians** who used a wall of spears that blunted the cavalry charge. The Abbasid **Abu Abbas al-Saffah** was proclaimed caliph in Kufa.
 750: Abbasid Rule: Marwan II captured and brutally killed. End of Umayyads. Abbasids ordered the elimination of every one of Umayyad clan. Unprecedented slaughter.

Atrocities:

715: Spain: Musa ibn Nusayr, the conqueror of Barcelona and northeast Spain, was dismissed, recalled, and put into jail in Damascus on the orders of the Umayyad caliph Sulaiman. His son, Abdul Aziz, the governor of Spain, was treacherously assassinated, and his head was dispatched all the way to Damascus for display to his father.

750: Abbasids: Marwan II, the defeated Umayyad caliph, fled to Egypt. (He was a handsome man with blue eyes and ruddy complexion.) He was betrayed, and his hideout in a church at Busir was revealed. He was slain and his severed head sent to the first Abbasid caliph Abul Abbas al-Saffah (Bloodthirsty), where it was mutilated.

751: Abbasids: Abdullah, the uncle of Caliph al-Saffah, committed a horrific atrocity in Jaffa, Palestine.

The remaining family members of the Umayyad household (eighty princes, their wives, and their children) were offered amnesty and invited to a feast where all were brutally slain. A carpet was rolled over, and the tyrants resumed their feast over the semidead bodies of their hapless victims.

751~: Abbasids: During the reign of al-Saffah, over ten thousand Muslims were massacred.

754: High officials and generals who had been instrumental in bringing Abbasids to power were put to death one by one, including Ziyad, the governor of Khorasan, and Abu Salama, the vizier.

755: Abbasids: Caliph Abu Jafar al-Mansur ordered the arrest of Abu Muslim, the thirty-five-year-old able general instrumental in the Abbasid victory. He was cut to pieces in front of the court.

756: Ibn al-Muqaffa: Caliph Mansur condemned the noted Persian author of *Kalila wa Dimna* (Animal Stories) on grounds of introducing Zoroastrian elements in Islam. He declared him to be Zindiq (irreligionist) and had him executed.

Positive Events:

712: Central Asia: Islam spread.

717: Tax Reform, Omar II: Mawalis exempted from Jizya (poll tax) but not from Kharaj (land tax).

Negative Events:

745: Plague: In Iraq and Syria.

761-810

Battles Won:

772: Bosphorus, Turkey: Abbasid caliph al-Mahdi sent his twenty-year-old son Harun to Bosphorus. Byzantine queen Irene was obliged to pay a heavy ransom to the raiding party.

776: India: Abbasid forces stormed the city of Barbad destroying images of Buddha.

778: Roncevaux Pass, Spain: Emperor Charlemagne encouraged by the Abbasids started a campaign in Spain to punish the Umayyads who had gained lots of territory. He captured Barcelona and Pamplona but suffered a major defeat at the hands of Umayyad forces at La Roncevaux. Roland, his general, was killed by the Basques. Charlemagne did not dare to cross further into the Muslim territory. The defeat of the Franks was commemorated in an epic poem "La Chanson de Roland."

782: Constantinople: Muslim army marched to the city but was bought off by Constantine VI.

793: Narbonne, France: Umayyad emir Hashim I, s/o Abdur Rahman, briefly reasserted his control.

800: North Africa: Abbasid under the Persian Ibn al-Aghlab reasserted control. He proceeded to establish his own dynasty based in Kairouan, Tunisia. They developed a great navy, attacked Rome, and conquered Sicily.

806: Hadumar, Naval Battle: Franks defeated.

806: Tyana, Turkey: Harun al-Rashid defeated the forces of Emperor Nicephorus with whom he had earlier exchanged bitter communications.

806: Tyana, Turkey: Captured by the Seljuqs, who then advanced to Ankara.

809: Khorasan: Campaign against insurgents during which Caliph Harun al-Rashid was killed.

Battles Lost:

780: Germanikeia, Anatolia: King Leo V defeated a Muslim army. Setback to Muslim influence.

785: Gerona: Lost to Pippin the Short, s/o Charles Martel.

801: Barcelona: Lost to Pippin the Short, s/o Charles Martel.

807: Tarsus: Byzantine forces inflicted severe losses on Abbasid forces in Turkey.

807: Sardinia: Franks under Burchard defeated Moors.

External Campaigns, Impact:

751: Arabs became acquainted with the manufacture of paper. Paper mill in Samarqand.

Rebellions and Civil Strifes:

752: Oman: Shia dissatisfaction to Sunni Abbasid's rule, suppressed by the next caliph Mansur.

756: Umayyad Spain: Abdur Rahman, grandson of Hisham, escaped the carnage and made his way to Spain. He defeated the Abbasid governor Yusuf al-Fahri and founded Umayyad Andalusia that lasted for 275 years until 1031, then disintegrating into Taaifas, petty states.

757: Transoxiana: Unrest led by Turkic Ishaq al-Turki.

757: Tripoli, Libya, and Kairouan: Captured by Berber Kharajis. Abbasids lost control over North Africa.

758: Algeria: Persian-born Ibadite Rustam established a new dynasty that lasted until 909.

762: Medina: Unrest led by self-styled prophet Muhammad the Pure Soul.

763: Spain: Attempt to restore Abbasid's authority in Spain failed.

768: Morocco: Berber Chakya revolted against Umayyad Spain. His reign came to end in 776.

780: Khorasan: Revolt led by al-Muqqanna, a follower of Ibn Muslim claiming to be divine, seized much of the province. Defeated, he burnt himself.

781: Spain: Second attempt to restore Abbasid's authority in Spain failed. Abdur Rahman sent the heads of fallen Abbasids to Baghdad.

795: Khorasan: Twenty-five-year period of Kharaji revolt led by Hamsa ibn Adrak began.

796: Mosul: Rebellion was crushed by Harun al-Rashid. He was dissuaded though from destroying the city.

796: Cordoba: Rebellion, also in Toledo under Hakam I.

806: Samarqand: Revolt by Rafi ibn Laith was suppressed by Harun.

809: Civil War: Erupted between Amin and Mamun, the sons of Harun Rashid. Amin was the son of his favorite wife Zubaida. The caliph had earlier made gifts of one million gold pieces to each of his sons and had the succession documents posted in Mecca.

Betrayals:

761~: Abbasid caliph Mansur sent an embassy along with rich Oriental gifts to King Pepin of the Franks, in Paris, urging him to attack the rival Umayyad state in Spain set up by Abdur Rahman.

782: Caliph al-Mahdi pleased with the exploits of his son Harun in Turkey wanted him to supersede the official heir, his elder son al-Hadi. On al-Hadi's resistance to waive his claim, Mahdi set out with an army to punish his own son.

786~: Abbasid caliph Harun al-Rashid exchanged gifts with Emperor Charlemagne. He encouraged Charlemagne to attack the Muslim Umayyad emir of Spain who he regarded as a renegade.

Repressions:

777: Zindiq: Umayyad caliph Mahdi ordered the wholesale elimination of Manicheans in Khorasan. He set up an inquisition office to crush the heresy.

778: Khorasan: After the killing of Abu Muslim, a Persian, Hashim ibn Hakim proclaimed himself as incarnation of God calling himself al-Muqanna (the Veiled One) and built up a large following. Confronted with an Abbasid army, he poisoned himself along with two thousand of his followers including women and children. The sect was persecuted until the twelfth century. Thomas Moore's poem *Lalla Rookh* (Beautiful Face) is modelled after al-Muqanna.

Atrocities:

762: Medina: Umayyad Isa under Caliph Mansur surrounded Mohammad al-Nafs al-Zakiya (the Pure Soul), a descendent of Imam Hussain who, rejecting amnesty, fought on with Zulfiqar, the sword of Hazrat Ali. His body was desecrated. Ibrahim, the brother of Mohammad, who rose in revolt, was also killed. Mansur expressed his joy by saying, "It is like the delight of a thirsty wayfarer coming on a living stream," (Ref: MW).

762: Imam Malik bin Anas: Noted jurist of Shariah declared that oath of allegiance to the caliph was not binding on Muslims. For this, he was publicly flogged only to be later rehabilitated by Harun Rashid.

776: Imam Abu Hanifah: The foremost theologian of Islam was arrested and flogged by Caliph al-Mansur for refusing an official post. He expired in prison.

803: Fall of Barmaki Dynasty of Viziers: Khalid Barmaki was appointed by al-Saffah as his minister in 747 and served Caliphs al-Mansur and al-Mahdi until 773. His son Yahya was also appointed governor in 765. His son Jafar was appointed a minister by Harun al-Rashid. Jafar was an extremely able person and made a lasting contribution as the foremost patron of science and the arts. He was beheaded for having an affair with Abbasa, the beautiful sister of Harun. His body was impaled. After this, his father Yahya and his brother Fadl, a minister, were put in prison; and their properties were confiscated.

806: Spain: Umayyad emir al-Hakam I ordered the massacre of one thousand five hundred Arab subjects, an event known as the Day of the Ditch.

811-860

Battles Won:

820: Sardinia, Naval Battle: Moors defeated Franks.

826: Crete: Captured by Muslim pirates from Spain and Maghreb.

827: Marsala, Sicily: Captured by naval fleet of Asad al-Furat (Aghlabids).

827: Lombardy: Muslim forces reached as far north as Lombardy in Italy.

831: Palermo, Sicily: Captured by Aghlabids. It will remain under the Muslim rule until 1072.

838: Anzen, Amorium: Caliph al-Mutasim's forces defeated Byzantine emperor Theophilus. Thirty thousand were killed. The flourishing city was razed to the ground.

841: Taranto, Naval Battle: Aghlabids defeated the Venetian squadron.

841~: Brindisi, Bari, and Messina captured by the Aghlabids.

846: Rome: Muslim Aghlabid forces entered Rome and sacked Saint Peter's church.
 855: Sumeisat, Syria: Byzantine raid was repulsed with lots of war booty.
 858: Spain: Viking raiders causing havoc in Europe were repelled by the Muslim forces.

Battles Lost:

813: Majorca, Naval Battle: Franks under Irmingar defeated the Moors.
 849: Ossetia, near Rome, Italy: Aghlabids suffered major defeat at the hands of combined Christian navies. Pope Leo IV came out to bless the Christian forces.

Rebellions and Civil Strifes:

808: Civil War: Upon the death of Harun, with the machinations of the court and Fadl ibn Sahel, the minister, al-Amin was proclaimed caliph in Baghdad while his brother Mamun was given the governorship of Khorasan. The solemn documents signed by Harun and preserved in Mecca were sent for by al-Amin and torn to shreds. Al-Amin immersed himself in luxury: music, dance, wine, and women. He built five boats in the shapes of lion, elephant, eagle, serpent, and horse for parties on Tigris River. To meet the expenses, he confiscated the estate and the gold belonging to Mamun (Ref: MW).
 813: Caliph Amin was temporarily deposed by his general Hussain and put into prison. In turn, the people turned against Hussain, and he was killed. Mamun forces under Tahir and Harthama lay siege. Baghdad was bombarded with Greek fire. He tried to escape with the collusion of Harthama but was caught and beheaded by Tahir's forces. Al-Mamun became the caliph and adopted the Shia faith. The next two Abbasid caliphs, Mutasim and Wathiq (813-847), were also Shias.
 815: Kufa: Uprising by Zaidis, a subsect of Shia, was suppressed by Mamun.
 816: Azerbaijan: Revolt led by Persians Jawdum and Babak, of the Khurramiya sect who believed in transmigration of souls. It ended in 827.
 817: Alternate Caliph: During the absence of Mamun, an attempt was made to proclaim his uncle Ibrahim as the caliph.
 818: Ministers: Al-Mamun's minister al-Fadl ibn Sahel was murdered, so was his declared successor, Ali al-Rida.
 818: Spain: Umayyad Hakem I quelled unrest by levelling a suburb of Cordoba.
 820: Basra: Uprising by Indian gypsies called the Zotts.
 821: Khorasan: By appointing Tahir, a general, the governor of remote Khorasan, Mamun unwittingly set in motion the establishment of the Tahirid dynasty that would last for fifty years.
 829: Egypt: Coptic rebellion.
 833: Baghdad: Faced with revolt due to his support of Mutazila movement, Caliph al-Mutasim moved the capital from Baghdad to Samarra involving unnecessary replication of services. This will remain capital for fifty-six years.

842: Arabia: Revolt by al-Mobaraka, the veiled imposter, crushed by al-Mutasim.

847: Medina: Revolt by Beni Suleim around Medina was crushed by Bogha, a Turkish general.

851: Armenia: Revolt was crushed by Bogha. Tbilisi, along with its fifty thousand residents, was burnt to the ground.

856: Egypt: Revolt by Ali Baba was crushed by Caliph al-Mutawwakil.

Repressions:

814: Inquisition (Mihnah): Mamun influenced by Mutazila (rational theology) movement set up inquisition against those who did not ascribe to their ideas, especially the one that states that Quran is an entity created by Allah and that it is specifically adapted to the circumstances existing during Prophet's (PBUH) time. This idea was rejected by orthodox scholars such as Imam Ahmad bin Hanbal who was tortured and imprisoned.

850: Cordoba: The first of fifty Christians were executed for showing wilful disrespect to Islam. This type of punishment was atypical but formed the basis for their liberation struggle. New Muslims (Mawalis) were removed from bureaucracy

851: Mutazila: Caliph Mutawwakil reversing the policy of support began to persecute them including Qadi ibn Daud.

855: Karbala: Abbasid caliph Mutawwakil as part of crackdown of Shias made derisory remarks against Hazrat Ali. He destroyed the shrine of Imam Hussain in Karbala.

855: He invoked new regulations against Jews and Christians forcing upon them dress regulations. He ordered against the display of the cross.

Atrocities:

813: Caliph al-Amin was beheaded by the Persian forces of Tahir. His head was dispatched to his brother, the new caliph al-Mamun.

816: Harthama, the general who went to Merv to advise al-Mamun to move to Baghdad to handle the critical situation, was harangued by the caliph on false pretences and severely beaten, resulting in his death. He was a victim of cruel ingratitude.

822: Tahir the general to whom al-Mamun owed his caliphate, was accused of insubordination and found dead in mysterious circumstances.

826: Ibn Aisha, a member of the royal household accused of conspiracy, was beaten and left for three days in the blazing sun. His body was impaled in public. It was the first time that a member of the royalty had met such treatment.

838: Babak, a leader of the Khurramiya sect, was killed and his body mutilated in al-Mutasim's presence on Samarra.

841: Afshin and Mazyar, Turkish generals of al-Mutasim, who had won many battles for the caliph, were accused of heresy and killed.

	846: Ahmad ibn Nasr, a notable scholar, was interrogated on the Mutazila doctrine of the createdness of the Quran. He was unjustly condemned and was killed by al-Mutasim with his sword Samsama.
861-910	<p>Battles Won:</p> <p>870: Malta: Conquered by Aghlabids. 878: Syracuse: Captured by Aghlabids of Egypt. 880: Milazzo, Naval Battle: Arabs defeated Byzantines. 899: Mediterranean: A Byzantine naval fleet set on fire and three thousand enemy killed. 902: Taormina: Captured by Aghlabids. 904: Thessalonica: Captured by Muslims along with twenty thousand slaves.</p> <p>Battles Lost:</p> <p>844: Seville: Normans captured Seville. 863: Lalakoan: Byzantine victory. 868: Cornith, Naval Battles: Byzantines under Niketas Oryphas destroyed two Arab fleets. 879: Canton, Kanfu: Destruction of the settlement after seventy-nine years. 880: Cephalonia, Naval Battle: Byzantines under Nasaris destroyed an Arab fleet. 902: Cosenza: Aghlabids withdrew from the Italian mainland following the death of Ibrahim II. 908: Aegean Sea, Naval Battle: Byzantines under Himerios defeated Arabs.</p> <p>Rebellions and Civil Strifes:</p> <p>861: Anarchy: Caliph Mutawwakil was murdered by Turkic soldiers. His son al-Muntasir was proclaimed but was challenged by his brother al-Mutazz. 861: Khorasan: Kharaji revolt. Yaqub ibn Laith (al-Saffar) expelled Tahirids from Sistan. 862: Kufa: Revolt by Zaidis who marched to Azerbaijan to create a state under Hasan ibn Zayd. 866: Al-Mustain: Turkic soldiers replaced him with al-Mutazz. The Arabs could not save him. The governor remarked, "What use of Arabs now without the Prophet and angelic aid?" It was true as it was no longer for the faith that they fought (Ref: MW). 867: Al-Mutazz: Rebellion against the caliph and the Turks in Baghdad and Samarra by the Arabs. They killed Wasif and Bogha, his ministers. 867~: Rebellion by Yaqub Saffar of Sijistan. 869: Al-Mutazz: Turkic soldiers replaced him with al-Muhtadi. 869: Basra: Revolt by Zanjis, black African Mawalis, to be suppressed in 883 when their leader al-Kabith was killed.</p>

870: Baghdad: Salih, son of Wasif, the minister who became notorious for his cruelty, was pursued by the Turkish soldiers and murdered.

870: Al-Muhtadi: Died fighting Turkic soldiers, al-Mutamid became nominal caliph. Real power was with al-Muwaffaq.

873: Yaqub ibn Laith (al-Saffar) established the Saffarid dynasty. He captured Khorasan from the Tahirids.

876: Yaqub ibn Laith (al-Saffar) attacks Baghdad but is repulsed by al-Muwaffaq on Tigris.

879-928: Omar ibn Hafsun's family revolted in Spain.

886: Tulunids: Officially recognized by Abbasids as rulers of Egypt, Syria, etc.

897: Yemen: Became a Shia Zaidis state.

890-900: Ismaili, Qarmathians: Revolt led by Zikraweih defeated an Abbasid forces near Basra.

900: Samanids: Led by Ismail, Samanids displaced Saffarids from most of Khorasan. Rule from Bokhara. Saffarids were relegated to Sistan.

900: Ziyarids: Began their rule over northern Persia.

902: Bahrain: Supported by Tulunids, Ismaili Shia Qaramites set up an independent state.

904: Mosul: Revolt by the Kurds against the Beni Taghlib Arabs.

905: End of Tulunids: Disturbed by power of Shia Qaramites, Baghdad sent a large force under Abu al-Hayja of Hamadan to topple Tulunids. In turn, Hamanids set up a dynasty of their own.

909: Fatimids: The Ismaili dynasty under Abu Abdullah al-Shii seized power from Aghlabids of Tunis and Rustomids of Algeria.

Repressions:

892: Banning of Mutazila: Caliph al-Mutadid controlled Turkic soldiers, abandoned Mutazila capital Samarra for Baghdad, and banned all books written by Mutazila and rationalists.

900~: Qaramathians: After causing trouble in Syria and Iraq, they were defeated by the Egyptian general Mohammad under Caliph Muqtafi. Their leaders were sent to Raqqa and executed with extreme cruelty.

Betrayals:

904: Tarsus: Egyptian rebels engaging in sabotage burnt a fleet of fifty ships that were desperately needed to fight against the Byzantine navy.

Atrocities:

861: The noted grammarian al-Sikkit was trampled and killed by the guards of al-Mutawwakil.

	<p>861: Patricide: Al-Mutawwakil in a drunken state was assassinated by Turkish guards and by his own son al-Muntasir.</p> <p>862: Al-Muntasir was poisoned, probably by al-Mutazz. Al-Mustain, grandson of al-Mustain, became caliph.</p> <p>867: Al-Mustain was deposed by the Turkish soldiers, and al-Mutazz was declared the caliph. He ordered al-Mustain, his cousin, and his wife to be assassinated. When the assassin brought his head before al-Mutazz, he asked him to wait until he had finished the game of chess.</p> <p>867~: Al-Muaiyad, the brother of the caliph and the next heir, was smothered by the Turkish soldiers.</p> <p>869: Caliph al-Mutazz, unable to meet the expenses and quell the riots, was arrested by his minister Babikal Salih, son of Wasif and Musa, son of Bogha. He was left hungry and thirsty in a room where he died at the age of twenty-four. He was replaced by his noble cousin, al-Muhtadi. (Al-Muhtadi proved to be an honest ruler who looked upon the Umayyad caliph Omar bin Abdul Aziz as his model.)</p> <p>870: Caliph al-Muhtadi was accused by his powerful ministers and the Turkish generals. He was given a sham trial and was put to death at age thirty-eight.</p> <p>892: Baghdad: Caliph Mutadid ordered the arrest and crucifixion of Khwarij leader of Mosul.</p> <p>906: Qaramathians looted pilgrimage caravans and engaged in whole-scale massacre. Their women went round under the pretext of giving water to the wounded. Instead, they gave them coup de grace. A Turkish general, Wasif, was sent by al-Muqtafi to subdue them, which he did, killing the leader Zikarweih.</p> <p>Rebellions, Impact:</p> <p>861-945: Start of collapse of the Abbasid political power.</p> <p>Aghlabids (North Africa) and Sunni Samanids (Persia) were independent powers.</p>
911-960	<p>Battles Won:</p> <p>912: Chios, Naval Battle: Syrian-Cilician defeated Byzantine under Himerios.</p> <p>920: Valdejunquera, Spain: Abdur Rahman III (titled Nasir din ill Allah) inflicted a heavy defeat on the rulers of Asturia-Leon and Pamplona-Navarre.</p> <p>958: Messina: Naval battle with the Byzantines.</p> <p>Battles Lost:</p> <p>917: Byzantines: Gained ground in Syria. Empress Zoe sent an embassy to Baghdad with an offer of peace in return of one hundred twenty thousand pieces of gold. This was agreed to by Caliph al-Muqtadir to the resentment and protest of the people.</p>

939: Simancas, Spain: Winner Ramiro II of Leon and other lords, loser Abdur Rahman III, who lost a copy of the Quran and vowed not to fight again.

946: Edessa, Turkey: The Byzantines gained inroads and besieged Edessa. They were after a holy relic, Saviour's Napkin, stored in Edessa's cathedral. After a debate by Muslim jurists and Caliph Mustaqfi, it was decided to surrender the relic and thus save Edessa from destruction.

956: Mazara, Naval Battle: Tunisian fleet destroyed by Christians.

External Campaigns, Impact:

912-961: Peak of the Umayyad power in Spain. They fought Berbers and Fatimids in addition to the Christians.

Rebellions and Civil Strifes:

921: Fez: Umayyad city captured by Fatimids.

923: Basra: Ismaili Qaramites attack and destroy Basra.

925: Qaramites Revolt: Vizier Ibn al-Furat requested Munis, a Turk, to suppress the revolt that he did. After this, he tortured and executed the vizier and his son. He became the virtual leader of Baghdad to the chagrin of Caliph al-Muqtadir.

927: Qaramites: Threatened Baghdad but were repulsed.

929: Spain: Since 756, Umayyad rulers had been called emirs. After 173 years, Abdur Rahman III proclaimed himself caliph.

930: Qaramites: Knowing the weakness of the Abbasid caliph al-Muqtadir, the Qaramites attacked Mecca and removed Hajar-i-Aswad. They returned it in 951 in Basra.

932: Al-Muqtadir: Desperate to assert his authority as a Caliph, he appeared wearing the Prophet's (PBUH) cloak before the army. His general, Munis, seized and executed him. His brother al-Qahir was proclaimed.

933: Munis: Al-Qahir managed to topple and execute Munis.

934: Al-Qahir: The caliph was seized, blinded, and dethroned by a vizier Ibn Muqla. Al-Radi, s/o al-Muqtadir, was proclaimed as the caliph.

934: Shiraz: Tribal warriors, Buyids, from Alborz mountains proclaimed themselves rulers.

935: Egypt: Governor Ibn Tughj established a new dynasty, Ikhshidids, that lasted until 969.

936: Ibn Raiq: Became chief emir after the execution of Ibn Muqla.

941: Baghdad: Musical chairs for the title of Emir ul Umara between the Turkish Baikam and the Arab al-Baridi. The victorious Baikam on the way back to Wasit was killed by the Kurds. Al-Baridi with the help of Daylami troops was reinstalled as the chief emir. The Daylami chief Kurtekin expelled al-Baridi but was himself replaced by Ibn Raiq, the governor of Syria on grounds of extreme cruelty, and al-Baridi was reinstalled.

(Note: There were multiple parties vying for power: the weakened Abbasids in Baghdad and Wasit, the Hamdanids in Mosul, the Turkish Ikhshadids in Syria, the Turkish warlords, and the increasingly powerful Buyids supported by the fierce Daylami troops.)

943: Basra: A Turkish general, Tuzun, defeated al-Baridi and reinstalled as chief emir of Caliph Muttaqi.

944: Al-Muttaqi: Caliph blinded by Turk general Tuzun. Al-Mustaqfi, s/o al-Mutaffi, was the new caliph.

945: Daylamis: Shia condottieri from Caspian took over power in Baghdad. Buyid Muizz ud Daula became the chief emir of the nominal caliph al-Mustaqfi.

944-947: Berber: Revolt against Fatimids.

945: Ahmad ibn Buwayh, Buyid: Became effective ruler in Baghdad. Buyid reigned (945-1055).

952: Qaramites: Attacked Baghdad but were repulsed by Ibn Buwayh.

953: Fatimids: Al-Muizz became caliph in Tunis. Jawaher was their outstanding commander.

Repressions:

950~: Sunnis: The Buyid sultan Muizz ud Daula who was Shia proclaimed the official observance of Shia ceremonies and events. They posted banners deprecating the earlier caliphs and Aisha, the Prophet's wife.

Atrocities:

922: Hussain al-Mughis al-Mansur al-Hallaj (b. 858 in Tur, Persia) was a Sufi who claimed that hajj could be undertaken in mind and need not be performed physically. His most famous work was *Kitab al Tawasin*, describing a dialogue between God and Satan. In his trances, he used to utter "Ana al Haqq" (I am the absolute Truth). Such blasphemous utterances led to a long trial, and he was imprisoned for eleven years. The Abbasids declared his beliefs to be "a threat to the security of the state." His limbs were cut off, his body was crucified and burnt, and his ashes were thrown in Tigris River. This was the first recorded instance of 'quartering' in the Muslim history, a practice that remained in common use in Europe till the 1700s (Ref: HUR, FA)

His death was described by Farid ud din Attar (d. 1220) as a heroic act as when they were taking him to the court, a Sufi asked him, "What is love?" He answered, "You will see it today, tomorrow, and the day after tomorrow." They killed him that day, burned him the next day, and threw his ashes to the wind the day after that. "This is love," Attar said. His legs were cut off; he smiled and said, "I used to walk the earth with these legs; now there's only one step to heaven, cut that if you can."

And when his hands were cut off, he painted his face with his own blood; when asked why, he said, "I have lost a lot of blood, and I know my face has turned yellow. I don't want to look pale-faced (as of fear) . . ."

932: Caliph al-Muqtadir could not control the bloody quarrel between his cavalry and infantry. He called for the help of Munis, his general; but due to conspiracy, the caliph was led to believe that the general was coming to depose him. Al-Muqtadir, clad in the Prophet's cloak and carrying his sword Zulfiqar, was slain outside the city.

933: Munis, suspected of conspiracy, was beheaded by the guards of the new caliph al-Qahir, the brother of al-Muqtadir.

934: Caliph al-Qahir was deposed, blinded, and put in prison. He was replaced by al-Radi, son of al-Muqtadir who was weak but was remembered for his piety. He was regarded as the last of the real caliphs.

944: Al-Muttaqi: Caliph blinded by Turk general Tuzun who installed his brother al-Mustaqfi as the caliph.

946: Caliph al-Mustaqfi and a lady of harem organized a reception to welcome an embassy from the East. The caliph was arrested and dragged out by the Daylamis. He was blinded, and the lady who organized the reception had her tongue cut out.

(Al-Muti, son of al-Muqtadir, was proclaimed the next puppet caliph by Muizz ud Daula. Al-Muti stayed on as nominal caliph for twenty-five years till 974, abdicating in favor of his son al-Tai. He was fortunate to have escaped physical harm or violent death.)

Rebellions, Impact:

Tax revenue flows were interrupted.

Positive Developments:

950~: Conversion of Turkish tribes Qarluqs and Qarakhanids to Islam.

945: Daylamis: Dynasty of condottieri from Caspian Sea area took over power in Baghdad. They started direct use of Iqta (land revenue) for paying the army.

Negative Developments:

941~: Plague in Iraq.

961-1010

Battles Won:

962: Calabria, Naval Battle: Greek fleet under Niketas destroyed.

982: Stilo (Cap Colonne) Calabria, Italy: German army under Saxon emperor Otto II of Swabia and Bavaria resoundly defeated by al-Qasim, the Kalbid emir of Sicily.

985: Barcelona: Al-Mansur sacked Barcelona and massacred its citizens.
 997: Santiago de Compostela: Al-Mansur sacked the shrine of Saint James.
 1002: Spain: Punitive campaigns by Abd al-Malik, s/o al-Mansur, against Catalonia, Castile, Leon, and Aragon.
 1008: India: Mahmud Ghaznavi defeated a combined Indian army.
 1009: Jerusalem: Fatimids attacked.

Battles Lost:

961: Crete: Captured by Byzantine Nicephorus Phocas. Population became Christian.
 968: Sicily: Captured by Byzantines.
 995: Aleppo: Captured by Byzantines.
 1002: Calatanazor, Spain: Combined forces of Castile and Leon defeated Almanzor who died. This battle marked the start of the decline and downfall of the caliphate of Cordoba.
 1004: Messina, Naval Battle: Venetians defeated Arabs.
 1005: Messina, Naval Battle: Pisans defeated Arabs.

Rebellions and Civil Strifes:

962-963: Ahmad ibn Buwayh (Muizz al-Daula) with Shia sympathizers formally commemorated Muharram and Great Khumm (Hazrat Ali's designation as the successor).
 969: Egypt: Fatimid Jawaher conquered Abbasid Egypt and established Cairo as the capital.
 970: Mecca/Medina: Fatimids gained control of Hejaz. Marched into Syria.
 974: Baghdad: Turmoil between Sunni population of Iraq who supported Abbasid caliph al-Tai and Shia Buyids who wanted their emir to override the caliph's powers. Al-Tai stayed as nominal ruler for seventeen years, until 991, when he was deposed and put in prison by the emir who coveted his property. Al-Tai was replaced by his cousin al-Qadir, son of al-Muqtadir.
 977: Ghazni: Alptigin overthrown by Sebuktigin.
 978: Mosul: Buyids captured Mosul from Hamdanids.
 978: Damascus: Captured by the Fatimids.
 981: Spain: Al-Mansur (Almanzor), the regent, assumed full powers. His brutal campaigns against Christians invigorated Reconquista efforts.
 990: Mosul: Fatimid attack repulsed by the Buyids.
 999: Samanids: Rulers of Transoxiana overthrown by Turk Qarakhanids.
 1008: Spain: Anarchy in Spain after Abd al-Malik's death that lasted twenty years.

Negative Events:

1054: Famine in Egypt. Grain supplied by the Byzantines.

1011-1060

Battles Won:

1025-1030: India: Mahmud attacked Gujarat and the Somnath temple.

Battles Lost:

1016: Tyrrhenian Sea: Pisa and Genoa defeated Muslim Aghlabid naval forces.

1060: Sicily: Normans launched the first attack of a thirty-year-long campaign.

Rebellions and Civil Strifes:

1015: Aleppo: Captured by the Fatimids.

1031: *Baghdad: Al-Qadir who enjoyed a long stay of forty years as a nominal caliph under the Buyids died a natural death at age eighty-seven. His impotence as a ruler was a factor in his escape from violent death or mutilation. Al-Qadir was succeeded by his son al-Qaim who also had a long reign till 1075, lasting for forty-five years.*

1031: Spain: Umayyad Hashim III was expelled and caliphate was dissolved. Replaced by petty states called Taaifas. Cordoba began to lose its status as a center of learning.

1037: Neshapur: Captured from the Ghaznavids by the Greater Seljuqs who were Sunni Turks.

1039: Morocco: Berber preacher Ibn Yasin founded the Murabitun sect (Almoravids) based on the Maliki school. Interpreted Quran literally ascribing human qualities to Allah, a clear heresy.

1040: Dandanaqan, Central Asia: Seljuq Tughral Beg defeated the Ghaznavid Masud I, s/o Mahmud. Masud moved to Lahore.

1043: Mosul: Captured by Seljuqs.

1044: Anatolia: Revolt against Byzantine by Lesser Seljuqs (considered the beginning of modern Turkey).

1048: Baghdad: Al-Rahim became the (last) Buyid sultan, the effective ruler. Buyid rule ended in 1055.

1050: Ghazni: Sacked by Seljuqs.

1055: Baghdad: Seljuq Tughral Beg was invited by the Sunni caliph al-Qaim. Buyid rule ended.

1059: Ghazni: Seljuqs entered into a fifty-year peace treaty with Ghaznavids.

Betrayals:

990-1037: Kalbids of Sicily and Zirids of North Africa betrayed Muslim Aghlabids by allying with the Byzantines and the Normans.

Atrocities:

1058: Baghdad: During Tughral's absence from Baghdad on a campaign, the Daylami warlord al-Bashiri captured Tughral's half brother Ibrahim Inal and had him brutally executed.

	<p>1059: Baghdad: The vizier al-Muslima was killed by al-Bashiri.</p> <p>1060: Tughral Beg took revenge on al-Bashiri and had him executed.</p>
1061-1110	<p>Battles Won:</p> <p>1063: Graus, Spain: Almoqtadir allied with Sancho II, and twenty-year-old El Cid of Castile defeated Ramiro I of Aragon, who was killed.</p> <p>1064: Ani, Armenia: Captured by Seljuq Alp Arsalan.</p> <p>1071: Manzikert, Armenia: Seljuq Alp Arsalan defeated and captured the Byzantine Romanus IV.</p> <p>1086: Al-Zallaqah, Spain: Decisive victory by the Almoravid Yusuf ibn Tashfin over Alfonso VI. Castilians lost fifty-nine thousand five hundred out of sixty thousand.</p> <p>1071: Manzikert: Seljuq Alp Arsalan won a decisive victory and capture of Byzantine emperor Romanus Diogenes IV. All Anatolia, now called Rum, was conquered. This event revived Muslim interest in Constantinople but also precipitated the onset of the Crusades.</p> <p>1076: Ghana, Africa: Arabs attacked and destroyed the old kingdom's capital, Kumbi. Ghana became a center for the spread of Islam.</p> <p>1086: Sagrajos, Spain: Almoravid Yusuf ibn Tashfin defeated Alfonso VI at Zallaqah (Slippery Ground) near Badajoz. The ground was made slippery due to the huge volume of human and animal blood. Muslims losses were also huge, from which they could not recover for a long time. The imam of Cordoba Abul Abbas ibn Rumayla, along with many other notables, was killed.</p> <p>1094: Spain: Almoravids created a unified Muslim state out of the petty statelets (Taaifas).</p> <p>1097: Consuegra, Spain: Almoravid Yusuf bin Tashfin defeated Alfonso VI. Diego Rodriguez, son of El Cid, died.</p> <p>August 12, 1099: Ascalon: Fatimid army was defeated by Crusaders, but the city was not captured.</p> <p>1100: Valencia: Captured by Almoravids.</p> <p>1101: Anatolia: Lesser Seljuq Qilich Arsalan repelled Crusaders.</p> <p>1102: Ramla, Palestine: Crusader Baldwin defeated by the Fatimids.</p> <p>1103: Tokat: Count Raymond IV of Toulouse (son-in-law of Alfonso IV of Castile) an ardent Crusader, launched a campaign against the heart of the Muslim empire, Baghdad, to inflict a deadly blow on Islam. His forces were badly beaten in the hinterland of Anatolia near Tokat by the Lesser Seljuqs.</p> <p>1104: Harran: Seljuq Jikirmish and Sukman ibn Artuq defeated Baldwin II and Bohemund I.</p> <p>1108: Ucles, Spain: Almoravid commander Abu Tahir ibn Yusuf defeated Sancho, s/o Alfonso VI, who was killed. Enraged by the death of Imam al-Yazuli, three thousand Castilians were killed.</p>

1110: Zaragoza: Yusuf ibn Tashfin died in 1106, but the Almoravids continued the campaign and captured Zaragoza.

Battles Lost:

1061: Sicily: Roger II began conquest of Sicily.

1072: Sicily: Fall of Palermo to Norman Robert Guiscard.

1082: Seville: Captured by Alfonso VI from al-Mutamid.

1085: Toledo: Captured by Alfonso VI of Leon-Castile. Muslim Taaifa rulers sought help from the Almoravids. Toledo under Alfonso emerged as the center of learning.

1087: Mahdiyya, North Africa: Forces from Pisa and Genoa captured the port denying Muslim reach in the Mediterranean.

1089: Valencia: Rodrigo Diaz, **El Cid**, who sided with Muslims in 1063, set up his kingdom.

1091: Sicily: Roger II completed conquest of Sicily. Muslims were allowed their lifestyle until twelfth century.

1095: Crusades: Pope Urban II preached crusade against Muslims at Clermont, France.

Godfrey of Bouillon, Baldwin, Raymond of Toulouse, Adhemur of Puy, and Bohemund of Otronto assembled at Constantinople in 1096.

1097: Nicaea, Turkey: Siege by Bohemund of Taranto, Raymond of Toulouse, and Godfrey of Bouillon defeated the Lesser Seljuq Qilij Arslan I and Ghazi ibn Danishmend. They moved the capital to Konya.

1097: Dorylaeum, Anatolia: Crusaders Bohemund, Raymond of Toulouse, and Godfrey of Bouillon successful against Seljuq Qilij Arslan I.

1098: Antioch, Palestine: Captured by Bohemund of Tarentum from the Turkish Yaghi-Siyan Kerbogha.

July 7-15, 1099: Jerusalem: Two hundred thousand Crusaders captured Jerusalem under Fatimid Iftikhar ud Daula. Massacre of about forty thousand Muslims. Bloodbath in Masjid-i-Aqsa. Geoffrey of Bouillon was proclaimed the king. Christian states of Tripoli, Antioch, and Edessa formed. Crusaders were successful because of internal disunity between the Greater and Lesser Seljuqs and the Fatimids compounded by harassment from the Assassins.

August 1099: Ascalon: Fatimid army unsupported by Seljuqs was defeated by Crusaders.

1101: Ramla, Palestine: Crusader Baldwin defeated Fatimids. Stephen of Blois was killed.

1104: Acre: Captured by Baldwin from Fatimid al-Fadl. Byblos captured by Raymond.

1105: Ramla, Palestine: Crusader Baldwin defeated Fatimids and Thughtugin of Damascus.

1105: Artah, Syria: Crusader Tancred defeated Seljuq Radwan.

1109: Tripoli, Palestine: The city fell after seven-year siege to the Crusaders amid lots of betrayals. Fakhr ul Mulk went to seek help from the caliph in Baghdad who was unable. Nor any help came from Egypt. Seven hundred thousand books in Dar ul Ilm were deemed impious and therefore burnt by the Crusaders.

Rebellions and Civil Strifes:

1064: Azerbaijan: Greater Seljuq leader Alp Arsalan, nephew of Tughral, began a four-year campaign.

1065: Famine: Egypt suffered famine lasting seven years. Social and political disorder.

1066: Granada: Jews in the city killed. Resentment against their prominence in jobs.

1070: Aleppo: Seljuq Alp Arsalan captured Fatimid Aleppo.

1071: Eastern Anatolia: Rise of Malik Danishmend as leader of Turcoman.

1072: Alp Arsalan was killed by a prisoner brought before him. Lesser Seljuq ruled Armenia.

1072: Cairo: Fatimid al-Mustansir summoned Badr al-Jamali to suppress unrest due to famine, which he did ruthlessly.

1073: Jerusalem: Seljuq Atzis captured the city from the weakened Fatimids. Palestine and Damascus were also conquered.

1073: India: Ghauris replaced Ghaznavi rule.

1075: *Baghdad: Caliph al-Qaim, who was lucky to survive for forty-five years, died a natural death at age eighty-seven. He was succeeded by his grandson, al-Muqtadi, with the approval of the Seljuq sultan Malik Shah who wielded the real power. The sultan gave his daughter to the new caliph in the hope of combining the positions of the caliph and the sultan in the future.*

1077: Baghdad: Riots by Hanbali students of Madrassa Nizamiyah against the Mutazila, Ashaari, and Shaafii sects and the Shias. These were repeated in 1083 and 1101; as a result, many Shias migrated to Persia.

1079: Tangier, Morocco: Captured by Yusuf ibn Tashfin.

1083: Baghdad: Riots by Hanbali students of Madrassa Nizamiyah mainly against the Shias.

1086: Lesser Seljuq sultan Sulaiman of Anatolia was defeated and killed by Greater Seljuq sultan Tutush.

1090: Assassins: Ismaili Shia Hassan al-Sabbah, dismayed by Fatimids, set up a base at Alamut (Eagle Nest), an impregnable fortress in northern Persia. They managed to kill thousands including Vizier Nizam ul Mulk, Seljuq sultan Malik Shah, at least two Abbasid caliphs, and the Christian king of Jerusalem, Conrad of Montferrat. They even made an attempt on Saladin's life that failed. Alamut fortress and the beautiful gardens beneath it survived until 1256 until run over by Halaku. Their motto was said to be Nothing Is True; Everything Is Permitted.

1090: Granada: A Taifa state was captured by Yusuf ibn Tashfin.

1092: Baghdad: Nizam ul Mulk was killed (probably by the Assassins).

1094: Baghdad: Caliph al-Muqtadi after a stay of twenty years died. He was succeeded by his son al-Mustazhir whose twenty-four-year reign was politically irrelevant. When the Crusaders captured Jerusalem with whole-scale massacre of Muslims, the people in Baghdad got incensed demanding the caliph al-Mustazhir and the Seljuq sultan Fakhr ul Mulk Radwan to avenge the defeat. Being powerless, they remained inactive.

1095: Seljuq Civil War: Sultan Mahmud was killed by Tutush, his uncle. Mahmud's sons seized Damascus and Aleppo.

1097: Khorasan: Greater Seljuq prince Sanjar (patron of art) became the governor until his death in 1157.

1098: Rum, Anatolia: Lesser Seljuq Qilich Arslan set up second dynasty lasting two hundred years.

1101: Baghdad: Riots by Hanbali students of Madrassa Nizamiyah mainly against the Shias. As a result, many Shias migrated to Persia.

1105: Baghdad: Greater Seljuq prince Mohammad gained control.

1107: Mosul: Battle between the Lesser Seljuq Qilich Arslan I of Anatolia against the Greater Seljuq sultan Mehmed Tapar.

Betrayals:

1071: Anatolia, Betrayal: Greater Seljuqs marched against Lesser Seljuqs, even while they were engaged in fighting Byzantines.

1080: Anatolia, Betrayal: Lesser Seljuq sultan Ibn Qatalmish allied himself with the Byzantines against the Greater Seljuqs.

1109: Tripoli, Palestine: The city fell after seven-year siege to the Crusaders amid lots of betrayals. Fakhr ul Mulk went to seek help from the caliph in Baghdad who was unable. Nor any help came from Egypt. Seven hundred thousand priceless books in Dar ul Ilm (House of Knowledge) were deemed impious by the Crusaders and thrown into a bonfire.

Atrocities:

1092: Minister Nizam ul Mulk "assassinated" by the Assassins (Hassan bin Sabbah, Nizari sect of Ismaili in Alamut, Elburz).

1094: Aq Sunqur al-Hajib, Seljuq governor of Aleppo under Sultan Malik Shah and father of Imad ud din Zengi, was accused of treason by Tutush I of Damascus and executed.

Rebellions, Impact:

1094~: Fatimid state enjoyed social and commercial prosperity under the twenty-one-year stewardship of the vizier al-Malik al-Afdal.

	<p>Positive Developments:</p> <p>1055: Seljuq emir Tughral started the process of uniting the Muslim world under the banner of Sunnah. Under Nizam ul Mulk (1018-92) (assassinated), they set up many madrassas.</p> <p>1086: Sagrajos, Spain: Almoravid Yusuf ibn Tashfin defeated Alfonso VI. Consolidated Almoravid rule until 1148.</p> <p>1090: Almoravid Yusuf ibn Tashfin combined the petty states (Taaifas) into one. Almoravids were conservative and strict orthodox following the Maliki school of Fiqh that discouraged spiritual revitalization. They were defeated by Almohad belonging to the Ashaari philosophical school.</p> <p>1107: Land consolidation and distribution in Egypt.</p> <p>Negative Developments:</p> <p>1065-72: Famine: Egypt suffered famine lasting seven years. Social and political disorder.</p>
1111-1160	<p>Battles Won:</p> <p>1119: Ager Sanguiness (Field of Blood): Crusader Roger of Salerno severely defeated by the Seljuq Ilghazi.</p> <p>1123: Edessa: Baldwin II was captured but released in 1124. He then besieged Aleppo.</p> <p>1135: Edessa: Imad ud din Zengi (governor of Mosul, atabeg of Seljuq Mughis Mahmud II) embarked on his audacious campaign to free the Holy Land from the formidable forces of the Crusades. He defeated Crusaders in Armenia and captured Edessa.</p> <p>1137: Barin, Syria: Imad ud din Zengi besieged the fort and forced Crusaders to surrender.</p> <p>1138: Shaizar: Imad ud din Zengi successfully resisted the siege by the combined armies of the Crusaders and the Byzantines.</p> <p>1138~: Baniyas: Imad ud din Zengi repulsed the combined forces of the Crusaders and Muin ud din, the Muslim Burid ruler of Damascus.</p> <p>1140~: Armenia: Imad ud din Zengi captured Ashib and the fortress of Hizan.</p> <p>1144: Edessa: Imad ud din Zengi achieved a great victory by capturing Edessa from the Crusaders. This event is regarded by Muslim historians as the start of the jihad effort. This success can be partly attributed to a force of twenty thousand sent by the caliph Muqtafi and the Seljuq sultan.</p> <p>1146: Seville: Captured by Almohads.</p> <p>1147: Second Crusade: Half a million Christian soldiers assembled under Conrad III of Germany and Louis VII of France. Army was disease ridden. Defeated at Dorylaeum and Laodicea respectively by Anatolian Seljuqs.</p> <p>1148: Cordoba: Almohads recaptured the city from Alfonso VII.</p> <p>1148: Ascalon, Palestine: Siege by Crusader Conrad III of Germany failed.</p>

- 1148: Damascus: Siege by Baldwin III was not successful.
 1149: Inab, Antioch: Nur ud din Zengi defeated Antioch's Raymond of Poitiers at Inab.
 1154: Granada: Captured by Almohads.
 1157: Almeria: Captured by Almohads.
 1160: Aleppo: Saladin started his jihad and captured Aleppo.

Battles Lost:

- 1111: Sidon: Fell to the Crusaders.
 1115: Sarmin: Crusader Roger of Salerno defeated Seljuq general Bursuqi.
 1118: Zaragoza: After the move of Almoravids to Morocco and the weakening of their power, Alfonso I of Aragon with papal approval captured Zaragoza.
 1121: Didgori, near Tbilisi, Georgia: David IV defeated Seljuq Ilghazi who suffered heavy losses.
 1123: Escalon, Naval Battle: Venetians defeated the Fatimids.
 1124: Tyre: Fell to Crusaders' Venetian and Frankish fleets.
 1125: Azaz, Syria: Baldwin II defeated Seljuq general Bursuqi.
 1126: Marj es Saffar: Seljuq army defeated by the Crusaders.
 1139: Ourique, Portugal: Alfonso Henriques decisively defeated the Almoravid Ali bin Yusuf bin Tashfin. The miracle of the appearance of Saint James (the patron saint of Portugal, called Matamoros, Moor slayer) is said to have happened at this battlefield.
 1141: Samarqand: Greater Seljuq Sanjar was defeated by Qarakhitais from China.
 1146: Cordoba: Umayyad capital captured by Alfonso VII of Leon-Castile.
 1147: Lisbon: Captured by the naval forces of Alfonso I of Portugal, Simon of Dover, and Andrew of London. Muslim forces surrendered. Lisbon became the capital of Christian Portugal in 1255.
 1151: Algarve: Captured by the Portuguese.
 1153: Ascalon: Captured by Baldwin III of Jerusalem from the Fatimids.

External Campaigns, Impact:

- 1152: Crusader Raymond of Tripoli assassinated by the Assassins.

Rebellions and Civil Strifes:

- 1111: Baghdad: After the tragic fall of Jerusalem to the Crusaders, a large number of displaced people thronged Baghdad crying for war against the Franks. Abul Fadl al-Khashshab, the Qadi of Aleppo, was the first to preach for jihad. A riot ensued in Baghdad in which the pulpit and the throne of Caliph al-Mustazhir were broken. However, neither he nor the Seljuq sultan Ridwan was in a position to send an expeditionary force to liberate Jerusalem.

1118: Baghdad: Caliph al-Mustazhir died after a twenty-two-year reign. He was succeeded by al-Mustarshid who attempted to reduce the influence of the Seljuq sultan Masud.

1118: Almohads: Berber Ibn Tumart rebelled against Almoravids and founded the militant sect Almohads. They disagreed with Almoravids who associated anthropomorphic (human) attributes to Allah, a heresy. Almohads were impressed with revivalist thoughts of al Ghazali and his Sufi inclination. They extended the scope of jihad to errant Muslims but were shunned by those who had too much to lose. Far from saving Spain, they disunited the Muslims and weakened the state.

1125: Morocco: Almohad Ibn Tumart extended control over most of Morocco. Succeeded by Abd al-Mumin in 1130.

1125: Central Asia: Qarakhitais (Black Cathays) expelled from China threatened Greater Seljuqs.

1126: Basra: Dubeis of the Beni Mazyad tribe attacked and looted Basra. He was a dishonest person who instigated the brother of Sultan Ghias ud din to revolt and attack Baghdad.

1127: Wasit: Seljuq Mahmud of Iraq attacked Wasit but was repelled by Imad ud din Zengi on behalf the caliph al-Mustarshid.

1143: Fragmentation in Spain: Almoravid emir Ali ibn Yusuf died. Muslim Spain was again split into Taaifas. Revolt in Cordoba in 1144. Ibn Qasi invited Almohads into Spain.

1145: Baalbek: Muin ud din, the Burid ruler of Damascus, captured the city immediately after the death of Imad ud din Zengi.

1146: Fez: Captured by Almohads.

1147: Almohads: Abd al-Mumin defeated and ended Almoravid dynasty.

1153: Khorasan: Turk tribesmen captured the Greater Seljuq sultan Sanjar. After release in 1157, he died after a sixty-year rule.

1160: Baghdad: Caliph al-Muqtafi died in 1160 after a stay of twenty-five years. He was succeeded by his son al-Mustanjid who ruled for ten years and was considered pious and brave. Al-Mustanjid was ill advised to support a rebellion by the son of the Seljuq sultan, which prompted the sultan to march into Baghdad.

Betrayals:

1106: Baghdad: Dubeis of Beni Mazyad tribe after plundering Basra joined the Crusaders Baldwin II of Jerusalem and Jocelyn I of Edessa in their unsuccessful siege of Aleppo defended by Qadi ibn al-Khashshab.

1137: Damascus: Muin ud din of Damascus fearing the power of Imad ud din Zengi allied himself with the Crusader king of Jerusalem. Teaming up with the Crusaders, he besieged the city of Banias under Zengi.

Atrocities:

1121: Cairo: Malik al-Afdal, Fatimid vizier in Egypt, was murdered by the Assassins because of his support of a minor as a caliph instead of a more eligible candidate Nizar, who fled to Alamut.

1125: Aleppo: Ibn al-Khashshab, the Qadi of Aleppo (who campaigned for jihad against the Crusaders and successfully defended the city against the combined forces of Baldwin II of Jerusalem, Jocelyn I of Edessa, and the Muslim renegade Dubeis of Beni Mazyad), was murdered by the Assassins.

1126: Mosul: Al-Bursuqi, the Seljuq governor, was murdered by the Assassins.

1135: Hamadan: Caliph al-Mustarshid launched a campaign against Sultan Mehmed but was defeated and pardoned on the promise not to leave his palace. The next day he was found murdered, probably by the Assassins. It was only after the death of the caliph that Imad ud din Zengi was free to embark on his audacious campaign against the formidable forces of the Crusades.

1136: Isfahan: Al-Rashid succeeded his father al-Mustarshid, but he was entangled in rivalry between the Seljuq sultan Masud and Imad ud din Zengi. During these times, he was deposed by the Seljuqs, and his uncle was appointed instead. He fled to Isfahan but met his death by the Assassins.

1145: Imad ud din Atabeg Zengi, a fierce opponent of the Crusaders, was assassinated by a Frankish slave named Yarankash. He escaped but was captured and executed by Nur ud din Zengi.

1152: Tripoli: Raymond II of Tripoli was found murdered, probably by the Assassins.

Rebellions, Impact:

1120~: Decline of power of Almoravids in conflict with Almohads.

Positive Developments:

1173: Despite the Crusades, Pisa retained trading privileges in Alexandria.

1161-1210**Battles Won:**

1164: Harim, Palestine: Nur ud din Zengi defeated Raymond III, Bohemund III, Jocelyn III, and Hugh VIII, who were all taken prisoners.

1167: Al-Babein, Egypt: Crusader king of Jerusalem Almaric I defeated by Fatimid Sherkuh.

1175: India: Ghaurids invaded northern India.

1176: Myriokephalon, Ankara, Turkey: Seljuq Arsalan II defeated Manuel I of Comnenus.

1179: Jacob's Ford, Marj Uyun: Saladin defeated Baldwin IV. Half of his forces killed.

1180: Acre: Naval attack led to truce.

1183: Siege of Karak: Raynald of Chatillon captured Eilat and **threatened to attack Mecca**. Al-Adil, b/o Saladin, captured his fleet. Siege was not successful as was of 1184 and 1185. Also depicted in 2005 film *Kingdom of Heaven*.

May 1187: Cresson, Nazareth: Ayyubid general al-Afdal defeated Gerard of Ridefort.

July 1187: Hattin, Tiberias, Palestine: Saladin Ayyubi defeated King Guy Lusignan and Raymond III. Imprisoned King Guy and executed Reginald of Karak.

Oct 2, 1187: Jerusalem: Captured by Saladin after eighty-eight years. Balian of Ibelin allowed safe passage. There were no massacre of Christians. Saladin also captured Beirut, Sidon, Nazareth, Nablus, Jaffa, and Ascalon. Only Tyre remained.

1187: India: Punjab was secured by the Ghaurids.

1191: Portugal: Almohads captured Alcazar do Sal.

1192: Third Crusade: Collapsed after Richard I lost ninety-five thousand troops out of one hundred thousand in desert near Antioch. Some survivors converted to Islam. Richard made peace with Saladin.

1195: Alarcos, Spain: Almohads under Abu Yusuf Yaqub al-Mansur in alliance with Castilian Pedro Castro defeated King Alfonso VIII. It was one of the bloodiest encounters in the history of Spain. Important victory.

1196: Madrid: Almohads ravaged areas around Madrid.

1210: Transoxiana: Khwarizm Shah declared independence from the Chinese Qarakhitais.

Battles Lost:

1153: Ascalon, Palestine: Captured by land-sea attack under Baldwin III of Jerusalem.

1163: Karak de Chevaliers, Syria: Siege by Nur ud Din was unsuccessful.

1172: Almohads: Siege of Huete by Abu Yaqub Yusuf was unsuccessful.

1177: Mont Guiscard, Ramla in Palestine: Baldwin IV, Raynald of Chatillon, defeated Saladin. Only 10 percent of his forces returned to Egypt. This was a major defeat for Muslims.

1184: Almohads: Siege of Santarem (Portugal) by Abu Yaqub Yusuf was unsuccessful. He died.

1188: Karak de Chevaliers, Syria: Saladin captured the leader Castellan who told the besieged to surrender in Arabic but ordered them to hold it at all costs in French. Siege unsuccessful.

1190: Konya: The Lesser Seljuq capital was captured by Fredrick I Barbarossa (Red Haired) of Germany. He later drowned in Calycadnos (Gok Su) in Cilicia (Armenia).

1189-1191: Siege of Acre: It was a double siege. Muslim Acre was besieged by Emperor Frederick I whose armies were besieged by Saladin. Kings Richard Lionheart and Philip arrived. The walls were breached, and the city opted for surrender to Christians. Richard massacred two thousand seven hundred Muslim prisoners.

Sept 1191: Arsuf: Richard defeated Saladin's army of which seven thousand were lost.

1192: Jaffa: Richard repulsed Saladin's attack.

1203: Basian, Erzurum: Georgian David Soslani defeated Greater Seljuq Rukn ud din.

External Campaigns, Impact:

1146-74: Nur ud din Zengi, son of Imad ud din Zengi, and his brother Saif ud din Ghazi united Syria. They stopped and pushed Crusaders back to Orontes. They also battled against the Fatimids for return to orthodoxy.

Positive Events:

1169: Cairo: Thirty-one-year-old Kurd **Salah ud Din** (Saladin) Yusuf ibn Ayub deposed the Fatimid vizier Shawar and took over command of his army in Syria. In 1171, he brought Fatimid rule to close and established Sunni faith. He acknowledged Abbasid al-Qaim as the caliph. **He started a twelve-year intensive training program to raise a small, efficient, and disciplined force capable of using the latest technology for taking on and overcoming the Crusaders.** His perusal of the Quran on horseback in the battlefield was quoted by Edward Gibbon as a proof of his piety and courage.

1170-80: During the reign of Caliph Mustadi, Muslim armies of Nur ud din Zengi and Sultan Saladin were reversing the tide of Crusader armies. They both were recognized by Caliph al-Mustanjid.

1173: Spain: Almohads after consolidating Muslim Spain began attacks on Christian states.

1179-85: Saladin's successes and tough resistance led to truce with Crusaders Richard Coeur de Lyon and Raymond III.

March 4, 1193: Saladin after all the conquests died. His family could not afford to buy a suitable plot for his grave in Damascus.

Rebellions and Civil Strifes:

1164: Assassins: Hassan declared himself Ismaili imam.

1180: Khwarizm: Caliph al-Nasir (1180-1225) succeeded al-Mustadi. To reduce the power of the Seljuq sultan, he instigated Khwarizm Shah Takash to attack the sultan who was defeated and became the supreme ruler over Persia.

1182: Mosul: Offensive action by Saladin. Pushed Zengids out of Aleppo.

1186: Ghazni: Dynasty ended by Ghaurids.

1192: Anatolia: Lesser Seljuq Qilich Arslan II died. Decline began.

1194: Central Asia: Greater Seljuq sultan Tughral III died fighting Khwarizm. End of dynasty.

1196: Khwarizm: Sultan Takash fell out with the vizier of the caliph, attacked, and routed his army.

	<p>1200: Central Asia: Khwarizm Turkish leader Tekesh having forged a confederacy died. Succeeded by Ala ud Din (Mohammad Khwarizm Shah).</p> <p>1203: Balearic Islands: Almohad naval forces captured Majorca, Minorca, and Ibiza (from Almoravids).</p> <p>1206: Ghaur: Mohammad Ghauri was killed. Qutub ud din Aybak took over. He died playing polo in Lahore in 1210.</p> <p>Betrayals:</p> <p>1171: Fatimid vizier Shawar anxious to prevent Sunnis from gaining power entered into an alliance with Christian king of Jerusalem, Amalic I, against the Seljuqs and the Zengids who were fighting the Crusades.</p> <p>Repressions:</p> <p>1195: Ibn Rushd (Averroes): Almohad ruler Abu Yusuf persecuted unorthodox scholars including Ibn Rushd.</p> <p>Atrocities:</p> <p>1180: Baghdad: Caliph al-Nasir ordered the execution of two of his viziers.</p> <p>1191: Yahya al-Suhrawardi: Teacher of Gnostic cosmology and illumination (Ishraq) was accused of heresy and executed in Aleppo on Saladin's orders.</p> <p>1192: Tyre: Conrad of Montferrat (b. 1140~ in Piedmont, Italy) who was designated as the next king of Jerusalem was murdered by the Assassins just before he was about to be crowned.</p> <p>1196: Baghdad: Caliph al-Nasir commissioned the Assassins to get rid of an obnoxious governor of Khwarizm Shah.</p> <p>1196: Khwarizm Shah in revenge exhumed the body of the caliph's vizier and put his head on display.</p> <p>Positive Events:</p> <p>1180: Baghdad: Abbasid caliph al-Nasir successfully asserted his authority over Futuwwas (chivalric guilds). He acquired knowledge of the four main schools of Shariah and promoted himself as a leader who also happened to be religious.</p> <p>1210: Alamut: Jalal ud Din, the ruler of the Assassins, renounced his Imamate and embraced Sunni Islam.</p>
1211-1260	<p>Battles Won:</p> <p>1218: Damietta: Ayyubid al-Kamil repelled siege by Crusaders.</p> <p>Betrayal: Crusaders allied with the Seljuq Kaikaus I against the Ayyubids so that they will not have to fight on two fronts.</p> <p>1220: Central Asia: After the death of his father, Khwarizm Jalal ud din mounted resistance against Mongols.</p> <p>1221: Parawan: Khwarizmi Jalal ud din defeated Genghis Khan's forces.</p>

1244: Harbiyah, La Forbie, and Gaza: Ayyubid Baybars defeated Walter IV of Brienne.

1244: Jerusalem: Reconquered by the Khwarizm of Egypt. It will remain Muslim until 1914.

1248: Mansura: Louis IX, leader of the Seventh Crusade, landed at Damietta, marched to Cairo, and was defeated at Mansura.

1250: Acre: Third Crusaders after heavy defeat retreated to Acre.

April 6, 1250: Fariksur, Egypt: **Ayyubids defeated and captured Crusader Louis IX.** Later ransomed for eight hundred thousand gold pieces and return of the Holy Cross.

1259: Mongols: Mamluks offered stiff resistance to Halaku who withdrew to Azerbaijan pastures.

1260: Haifa, Arsuf: Sultan Baybars defeated Crusaders and captured main cities.

1260: Ain Jalut, Palestine: Mamluk commanders, Baybars and Saif ud din Qutuz, decisively defeated the Mongols under Kitbuga. After that, their power in the Middle East was broken.

1260: Ain Jalut, Palestine: Halaku was decisively defeated by Mamluk sultan Qutuz. First major defeat of Mongols.

Battles Lost:

1212: Las Navas de Tolosa, Spain: Almohad al-Nasir decisively defeated by combined armies of Alfonso VII of Castile, Sancho VII of Navarre, Peter II of Aragon, and Alfonso II of Portugal. Of one hundred twenty-five thousand Muslims, one hundred thousand were killed. **End of Muslim dominance in Spain.**

1215: Kashghar: Muslims of Kashghar first to face the brunt of Genghis Khan's brutality.

1216: Central Asia: Khwarizm massacred a delegation of one hundred Mongols at Otrar River, signalling the start of full-scale war by Mongols who destroyed the Qarakhitai kingdom.

1219: Egypt: Damietta near Alexandria was attacked and destroyed during the Fifth Crusade. Its population was massacred.

1219: Central Asia: Khwarizm Shah and his son Jalal ud din defeated and driven out to Azerbaijan by Tolui, son of Genghis. Feud between Khwarizm Shah and his mother Terken Khatun.

1217: Alcacer do Sal: Muslim army defeated by the Portuguese.

1221: Samarqand: Sacked by Genghis Khan.

1221: Herat, Afghanistan: Destroyed by Tolui, son of Genghis Khan (and father of Halaku Khan).

1221: Neshapur, Khorasan: In retaliation of the killing of her husband, the daughter of Genghis Khan ordered its destruction and the killing of 1.7 million men, women, and children of the city and surroundings.

1221: Indus, India: Khwarizm Jalal Ud din defeated by Genghis Khan's forces.

1229: Jerusalem: Sixth Crusade led by Frederick II of Germany landed an additional force at Damietta, Egypt. Saladin's nephew Malik al-Kamil, unable to fight and fearing attack on his capital, surrendered Jerusalem in exchange for Damietta. Jerusalem was conquered in 1187 by Saladin. Jerusalem will be reconquered by Muslims in 1244. In 1517 it will passed onto the Ottomans.

1229: Balearic Islands, Spain: Captured from Almohads by James I of Aragon.

1231: Jerez, Spain: Castilian army defeated the Moors under Abu Jaafer ibn Hud.

June 29, 1236: Cordoba: Fell permanently into Christian hands of Ferdinand III of Leon. The great mosque was consecrated as a cathedral.

1238: Valencia: Captured by James I of Aragon.

1243: Kose Dag, Anatolia: Lesser Seljuq commander Khusru II defeated by Mongol Bayju. **Mamluks and Baybars did not or could not accede to the request for help.** Lesser Seljuqs became vassals of Mongols.

1248: Seville, Spain: Fell to Ferdinand III of Leon-Castile after a three-year siege. Muslim resistance continued for the next ten years.

February 8, 1250: Mansurah, Egypt: Crusader Louis IX defeated the Ayyubid emir Fakhr ud din helped by betrayal of a Coptic Christian of Egypt. Robert of Artois, William of Salisbury, and most of the Knights Templar were killed in this battle.

1255: Portugal: Lisbon was declared as the capital of the Christian Portugal.

1256: Alamut: Assassin fort stormed by Halaku. Rukn ud din was put to death.

1258: Baghdad: Mongol Halaku and Guo Khan defeated and brutally killed Abbasid caliph al-Mustasim. He was the grandson of the ill-advised al-Nasir who had called for Genghis Khan's help against a fellow Muslim ruler. Now Halaku, the grandson of Genghis, was coming to "deliver the goods" in person to the grandson of al-Nasir. The Mongols massacred an estimated ninety thousand to one million Muslims with Tigris River turning red. It was the sad end of the glorious Abbasid dynasty. Baghdad's Grand Library containing thousands of priceless books on all subjects, astronomy to medicine, its bookstores, and its magnificent bazaars were all burnt. Buildings were razed, and Muslim economy and institutions were shattered. Baghdad and Muslim will not be able to fully recover from this immense catastrophe for several centuries.

Campaigns Launched against Jerusalem:

70-395: Under Romans

39-638: Under Byzantines

638-Conquered from Byzantines by Hazrat Abu Ubayd al-Jarrah in Caliph Omar's time

638-1072: Muslim Arabs

1072-1099: Muslim Seljuqs

1099: Captured by the Crusader Geoffrey of Bouillon, First Crusade.
 1099-1291: Christian Crusaders
 1187: Recaptured by Saladin
 1229: Surrendered to Frederick II by Malik al-Kamil
 1244: Reconquered by the Egyptians
 1291-1516: Under Muslim Mamluks
 1517: Handed over to the Ottomans
 1517-1914: Under Muslim Ottomans
 1914: Taken over by the British general Allenby
 1914-1948: Under the British
 1948-1967: Under Hashemite Jordan
 1967: Taken over by Israelis
 1967-2007 (present): Under the Israelis

External Campaigns, Impact:

1258: End of Abbasid dynasty. Grand Library containing books on all subjects, astronomy to medicine, were burnt. Buildings were razed. Baghdad could not recover for several centuries.

1218-38: After the death of al-Malik al-Adil, brother of Saladin, the Ayyubid empire disintegrated. Sultan al-Kamil resorted to policy of coexistence with the Crusader Frederick II in 1229.

Rebellions and Civil Strifes:

1213: Almohad: After the major defeat in Spain, they were further weakened by Banu Merlin revolt.

1215: Afghanistan: Khwarizm ruler invaded Ghauri lands.

1216: Baghdad: Khwarizm prince Mohammad decided to act against Caliph al-Nasir (1180-1225) and wanted to replace him with a descendent of the house of Ali. He was preparing to send a force against the defenseless Baghdad. The caliph's plea for peace was rejected.

1224: Almohad: Yusuf II was trampled by a cow. Maghreb and Spain get separated due to the crises of succession.

1225: Abbasids: Reformist caliph al-Nasir died. Crises of succession.

1230: Lesser Seljuq: Ruler Kay Qubad defeated Khwarizm Jalal ud din at Erznican.

1237: Granada: Almohad rule disintegrated. Yusuf ibn Nasir established an emirate by becoming a vassal of the Christian kingdoms of Castile and Aragon. This emirate lasted until 1492.

1240: Anatolia: Dervish revolt led by Baba Ishaq against the Seljuqs.

1244: **Civil Strife:** Ayyubid al-Salih Najm ud Din summoned Khwarizmi army (fleeing from Mongols) to come and help him fight his local rival Imad ud din Zengi.

1250: Mamluks: End of Ayyubids after Turan Shah was murdered by Turkish soldiers. Mamluk Izz al-Din Aybak married the sultana Shajar al-Durr ("Tree of Pearls"). Start of the Mamluk dynasty (1250-1557).

(She was the beautiful wife of the Ayyubid sultan Salih. She assumed full control after the death of the sultan during the Seventh Crusade until replaced by her stepson Turan Shah. Upon the assassination of Turan Shah by the Mamluk generals, including Baybars, she was formally declared as the queen. She married Mamluk warlord Izz al-Din Aybak but had him murdered soon after. Aybak's son al-Mansur Ali was appointed the next sultan. He put Shajar al-Durr to trial and subjected her to brutal torture. Her naked body was hung from the citadel in Cairo [Ref: Wiki]).

Betrayals:

1193: Crusades: Caliph al-Nasir preoccupied with his own survival ignored the pleas for imminent help from Saladin against the Crusaders. He only offered him a quantity of naphtha from Iraq which was urgently needed both for defensive and offensive purposes by Muslim forces.

1217: Mongols: Abbasid caliph al-Nasir facing threat from Khwarizm prince Mohammad sent an embassy to Genghis Khan, urging him to attack the latter. This was done despite pleas from the Abbasid court regarding the morality of the request in which the **defender of the faith was seeking help from a pagan warlord against a fellow Muslim ruler**. The Mongols decided to avail themselves of this plum invitation and attacked Khwarizm Shah.

(Note: As we will later see, this invitation proved a death knell not only to the Abbasids' rule and to al-Nasir's grandsons but also to the continued viability of the Muslim empire.)

February 8, 1250: Mansurah, Egypt: Crusader Louis IX defeated the Ayyubid emir Fakhr ud din helped by betrayal by a Coptic Christian of Egypt. Robert of Artois, William of Salisbury, and most of the Knights Templar were killed.

1250~: Baghdad: Ibn al-Kami, the vizier of the last caliph al-Mustasim, entered into secret communication with the Mongols informing them of the ill-prepared state of defenses of the city. Halaku, seeking a "casus belli," a pretext for war, upbraided the caliph for not doing anything against the Assassins. The caliph on the advice of the vizier sent a soft reply along with gifts. The vizier also drafted a document of surrender, but it was not sent due to the opposition of the people. Instead, a letter of defiance was sent.

Rebellions, Impact:

1218: Ayyubids of Egypt threatened by Seljuqs and Khwarizm Shahis.

Atrocities:

1212: Spain: After his victory of Las Navas de Tolosa, Alfonso IX advanced to Ubeda, where 70,000 Moors had taken refuge. Despite their offers to pay ransom, they were all massacred, (Ref: LHC).

1216: Spain: All Jews and Saracens were required to wear distinctive garment or badge.

1221: Neshapur, Khorasan: In retaliation of the killing of her husband, the daughter of Genghis Khan ordered its destruction and the killing of 1.7 million men, women, and children of the city and surroundings.

1235: India: Qutub ud din, the infant son of Sultan Iltutmish, was blinded by his brother Rukn ud din.

1236: India: Rukn ud din given to a life of luxury along with her mother, Shah Turkaan, were put to death after being in power for six months.

1240~: India: Razia Sultana (b. 1205), the able daughter of Sultan Iltutmish, was the first female Muslim to ascend the throne in 1236. She along with her husband was killed by her brother Bahram in 1240.

1250: Egypt: Aybak's son al-Mansur Ali accused and put Queen Shajar al-Durr to trial for the murder of her husband, Aybak. She was subjected to brutal torture, and her naked body was hung from the citadel in Cairo (Ref: Wiki).

1258: Baghdad: Halaku besieging the city demanded from the caliph to send the commander in chief and the secretary of the court to come and negotiate the terms of the surrender promising them safe conduct. The whole party was executed.

1258: Baghdad: Caliph al-Mustasim and his sons were then summoned by Halaku and were held in a tent. The populace were asked to quit the city so that the city could be plundered unhindered. Caliph al-Mustasim was put to death according to Mongol rites and along with all the royalty and the elite. This ending was in some ways similar to what the Abbasids did five centuries ago to the Umayyads.

1260: Mamluk: Sultan Qutuz was assassinated after his triumphant return. Sultan Baybars succeeded him.

Positive Events:

1219: Anatolia: Lesser Seljuq ruler Ala ud din Kay Qubad restored the dynasty that lasted until 1237.

1257-66: Mongols: Berke, brother of Halaku and grandson of Genghis, accepted Islam. Agreement with Mamluks against the Buddhist Ilkhans.

1260: Abbasid: Sultan Baybars proclaimed an Abbasid prince al-Mustansir as the resident caliph.

1261: Mamluks: Treaty with Byzantines about transit of military slaves from the Black Sea.

1261-1310**Battles Won:**

- 1261: Antioch: Captured and razed by Sultan Baybars.
- 1265-71: Mamluk Baybars's offensive against Crusaders led to the end of most of their possessions.
- 1268: Antioch: Baybars captured and devastated the city.
- 1266: India: New dynasty founded by Turk Balban. Conquered Deccan.
- 1270: Eighth Crusade: Fizzled out on the death of Louis IX by plague after landing in North Africa.
- 1271: Kirk de Chevaliers, Syria: Captured by Sultan Baybars.
- 1271: Aleppo: Edward I of England (called the new Richard the Lionheart), after arriving in Acre, sent an embassy to the Mongol ruler Abagha urging him to send forces to fight their common enemy, the Muslims. A force of ten thousand under Samagar arrived and ravaged the land south of Aleppo, causing huge displacement of Muslim populace. Mamluk general Baybars's counterattack pushed the Mongols back and forced Edward I to enter into a ten-year peace treaty and his return to England.
- 1271: Karak de Chevaliers: Baybars besieged and conquered the famous fort.
- 1277: Asia Minor: Baybars captured Caesarea from Mongols and Seljuqs.
- 1281: Homs: Mamluks inflicted a heavy defeat on Mongols.
- 1289: Tripoli: Captured by Ottomans.
- 1291: Acre and Tortosa: The sole Crusader enclave recaptured by Mamluks al-Khalil, s/o Qalawun, who died during the campaign in 1290. Crusaders expelled.
- 1301: Bahaion, Anatolia: Osman I defeated Byzantines. Besieged Iznik, Nicaea. Muslim warriors gathered around the coast of the Sea of Marmora.

Battles Lost:

- 1270-72: Crusade of Edward of England against Tunisia and Palestine.
- 1279: Tunis: Muslim fleet defeated by Conrad Lancia.
- 1284: Tegudar (Ahmad): Was defeated and executed by his Buddhist nephew Arghun.

Rebellions and Civil Strifes:

- 1299: Al Khazandar, Aleppo, Syria: Mongol Ghazan Khan (grandson of Halaku, who converted to Islam in 1295), defeated the Mamluks who lost 30,000 soldiers.
- 1299: Al Khazandar, Aleppo, Syria: Mongol Ghazan Khan (grandson of Halaku, who converted to Islam in 1295), defeated the Mamluks who lost 30,000 soldiers.
- 1296: North Africa: Almohad power dissolved. Mirinids seized Fez.
- 1300: Syria: Ghazan defeated and drove Mamluks into Egypt.

Repressions:

- 1289: Mongols: Arghun executed Buqa, his vizier, and appointed a Jewish person, Sad al-Dawla, who was notorious for his use of torture equally against Christians and Muslims.

	<p>Atrocities:</p> <p>1293: Mamluk: Khalil, s/o Qalawun, conqueror of Acre, was murdered and was succeeded by his brother al-Nasir.</p> <p>1296: India: Jalal ud din murdered and succeeded by Ala ud din Khilji who founded the Khilji dynasty.</p> <p>Positive Events:</p> <p>1261: Berke: Mongol competitor of Halaku converted to Islam. Islam spreads to south Russia.</p> <p>1261-1320: Seljuq Anatolia broke up into twelve petty states out of control of Ilkhans.</p> <p>1282: Tegudar (Ahmad): Grandson of Halaku converted to Islam but was killed in 1284.</p> <p>1288: Ottomans: Emerged in Anatolia under Ghazi Osman (ruler 1281-1324).</p> <p>1291: Mecca and Medina: Now ruled by the Mamluks of Egypt.</p> <p>1295: Ghazan: Mongol leader converted to Islam, overthrew the Mongol Baidu, cousin of Arghun. Senior Mongols also converted. Ghazan was extremely hostile to Mamluks. He attempted to ally with Christian against Mamluks.</p> <p>1304: Uljeitu: Succeeded Ghazan on his death. He was ambivalent toward Christianity, Buddhism, and Shamanism. Converted as a Shia Muslim in 1310 and adopted the name Mohammad Khudabanda. His mausoleum in Sultaniya was an architectural classic.</p>
1311-1360	<p>Battles Won:</p> <p>1326: Ottomans: Osman I captured Bursa, Anatolia.</p> <p>1331: Ottomans: His son Orhan captured Iznik.</p> <p>1331: Gibraltar: Captured by the Mirinid sultan Abu al-Hasab.</p> <p>1332-54: Balkans: Aydin Turks under Umar Bey campaigned in Balkans.</p> <p>1341: Ottomans: Sea raids against Albania and Greece.</p> <p>1345: Ottomans: Orhan crossed over to Bosphorus at the invitation of the Byzantine prince Cantacuzenus against his emperor Palaeologus.</p> <p>1352: Ottomans: Orhan's son Sulaiman commanded an army that will capture Thrace, Greece.</p> <p>1354: Ottomans: Orhan captured Ankara.</p> <p>1359: Ottomans: Following the death of Sulaiman, his brother Murad captured cities in Thrace.</p> <p>Battles Lost:</p> <p>1326: Nicopolis, Bulgaria: Combined forces of Jean of Nevers, France, and Sigismund of Hungary defeated Ottoman Bayazid I with thirty-five thousand dead out of one hundred thousand.</p> <p>1340: Rio Salado, Cadiz, Spain: Alfonso IV of Portugal and Alfonso XI of Castile</p>

defeated a large combined Muslim force of the Mirinid Abul Hassan Ali and the Nasirid Yusuf I. Further attempts at conquest came to an end.

1354: Spain: Nasirid Mohammad V lost territory to the ruler of Castile.

External Conditions:

1347: Plague, Black Death: Breakout in Europe.

1350-1425: Prince later king Manuel II Palaeologus (1350-1425), as a boy, he had been held prisoner by the Turks.

Rebellions and Civil Strifes:

1318: Abu Said: Ilkhanids Uljeitu was succeeded by his minor son. One of his ministers, Taj ud din, executed Abu Said's guardian Rashid ud din.

1320: India: Khiljis were overthrown by Tughluqs who conquered Bengal.

1325: India: Ghiyas ud din was murdered and succeeded by Mohammad Tughluq.

1335: Abu Said: Ilkhanid sultan died and civil war erupted, resulting in the end of the dynasty.

1336-1412: Iraq and Azerbaijan: Came under hegemony of Mongol Jalayirids. Conflicts with Muzaffarids remained until 1393.

1337-81: Herat, Khorasan: Shia movement Sarbadars revolted against the Kurt dynasty. Both were destroyed by Timur.

Repressions:

1315: Algeria: Missionary Raymond Lull stoned to death at Bougie.

1321: Egypt: Copts rebelled against Mamluks, and tens of thousands were executed.

1351: Egypt: Copts, faced with persecution, many converted to Islam.

Positive Events:

1313-41: Ozbeg: Khan of the Golden Horde converted to Islam. Spread of Islamic culture in Sarayi.

1316: Ilkhan Abu Said converted to Sunni Islam.

1322: Peace Treaty: Signed between Mamluks and Mongol Ilkhanids.

1326-34: Mongol Chagatai ruler Tarmashirin converted to Islam. Islam spreads to central Asia.

1331: Granada: Yusuf of Granada planned for the reconquest of Spain with the Mirinid sultan al-Hasab.

1334: Conversion Efforts: Safi ud din Ardebili, a Sufi who spent his life teaching Mongol leaders about Islam, died. His followers would lay the foundation of the Shia Safavid dynasty in Persia.

1336-1576: Rulers of Bengal conversion preceded the spread of Islam.

1347: Turkey: Cantacuzenus became the Byzantine emperor with Sultan Orhan's help to whom he married his daughter Theodora.

	<p>Negative Events: 1347-58: Plague in the Mediterranean region.</p>
1361-1410	<p>Battles Won: 1361: Turkey: Adrianople, Edirne, in Europe captured by Murad after a long siege. 1363: Turkey: Murad invaded Bulgaria. 1371: Turkey, Chermanon: Murad defeated Serbian princes Ugljesa and Vukasin. 1375: Mamluks: Overran Armenia. 1376: Turkey: Allied with Genoese, the Ottomans helped enthrone new Byzantine ruler. Gallipoli restored. Prince later king Manuel II Palaeologus (1350-1425), as a boy, he was held prisoner by the Turks. 1385: Turkey: Captured Serres, Monastir, etc. 1385: Turkey: Captured Sofia, Bulgaria. 1387: Turkey: Captured Salonika. 1388: Turkey: Occupied northern Bulgaria. 1390: Kosovo Polje: Under Murad I, Ottomans apparently won against Serbian Lazar Hrebeljanovic and Vuk Brankovic with great losses on both sides. Lazar was captured and executed. Murad I was assassinated on the way back by Milos Obilic feigning as a deserter. <i>(In 1987, the battle of Blackbird field became a rallying cry for the Serbs under Slobodan Milosovic against the Bosnians and the Kosovars).</i> 1391: Timur, Caspian Sea: Defeated the Mongol Golden Horde and killed their leader Tokhtamish. 1392: Turkey: Captured Kastamonu and Amasaya. 1393: Turkey: Bayazid I captured Trnova in Bulgaria 1394: Turkey: Eight-year blockade of Constantinople by Bayazid I. Captured Thessaly. 1395: Turkey: Bayazid I defeated Hungarians at Argesh. 1396: Turkey: Forces of Venice/Hungary/Byzantine under Sigismund defeated at Nicopolis, in the Danube valley. 1397: Turkey: Captured Argos, Peloponnesus. 1397-98: Turkey: Captured Qaraman, Qaysriyya, and Sivas. 1402: Timur: Defeated Crusaders and captured Izmir.</p> <p>Battles Lost: 1388: Turkey, Ploshnik: Defeated by a combined army of Serbs, Balkans, Bulgarians, and Bosnians. 1396: Turkey, Constantinople: Bayazid I mounted an assault but was repulsed by defense organized by Jean Bouciquaut of France.</p> <p>Rebellions and Civil Strifes: 1361: Timur: From the Barlas, Chagatai family became the khan. 1369: Timur: Captured Bokhara and Samarqand.</p>

- 1381: Timur: Captured Khorasan, Afghanistan, and Azerbaijan.
- 1382: Mamluks: Last of Bahri Mamluk sultan Hajji II was overthrown, replaced by Burji Mamluk Burqaq.
- 1389: Turkey: Bayazid defeated Qaramanids at Aq-Chay and captured Anatolia.
- 1393: Timur, Baghdad: Timur attacked and looted it.
- 1398: Timur: Entered India, looted Delhi and Meerut. One hundred thousand killed.
- 1399: Turkey: Captured Elbistan and Malatya on Euphrates from Mamluks.
- 1400: Timur: Invaded Georgia and Baghdad.
- 1402: Timur: Besieged Damascus. Interviewed by Ibn Khaldun.
- 1402: Cubuk Ovasi, Ankara (Betrayal): Timur defeated the Ottomans now allied with Serbians. Ottoman army was led by Serbian Stefan Lazarvic. Most of the Turkish army deserted and sided with Timur. Bayazid I was captured by Timur. Bayazid committed suicide on 1403 in Aksehir.
- 1403-1413: Turkey: Civil war started among Bayazid's sons: Sulaiman (Europe: 1403-11), Isa (Bursa), Mehmed (Amasaya), and Musa.
- Betrayal: Sulaiman allied with Byzantines, and Musa gained upper hand.
- 1405: Timur: While preparing for assault on China, died at sixty-eight. His son Shahrukh fought civil war. Lost to Jalayirids in Iraq. Timurid Miranshah lost to Qara Qoyunlu in Azerbaijan.
- 1410: Jalayirids: Defeated by Qara Yusuf (Qara Qoyunlu, "Black Sheep"). Lost Iraq and dynasty ended.

Rebellions, Impact:

Civil war between Timur and the Ottomans delayed the conquest of the Byzantine Empire.

Civil war between Bayazid's sons hurt the Ottomans to the advantage of the Byzantines.

Baghdad's History of Occupation:

762: Established by Abbasid caliph al-Mansur.

1258: Destroyed by Halaku. Under the Ilkhanids' rule till 1393.

1393-1508: Looted by Timur. Under Turkish dynasties: Jalayirids, Qara Qoyunlu, and Aq Qoyunlu.

1508-1534: Under Safavids of Persia.

1534-1916: Under Ottoman rule.

1916-1921: Occupied by the British.

1921-2003: Indigenous rule.

2003: Occupied by the USA.

Repressions:

1375: Execution of Ibn Khatibi of Fez, author of book on biographies of rulers.

	<p>Prosecuted by Qadi al-Nubahi of Granada.</p> <p>1396: Execution of Poet: Ibn Zamark of Alhambra whose poetry decorates the palace walls.</p> <p>Positive Events:</p> <p>1405: China: Ming emperor Yongli appointed the Muslim Zheng Ho as admiral. With his large and modern fleet, he visited the Red Sea, Arabia, and East Africa. These successes were not followed up, and China missed the chance to remain or develop as a naval power with global reach.</p> <p>1407: Egypt: End of civil war.</p> <p>Negative Events:</p> <p>Civil war between Timur and the Ottomans delayed the conquest of the Byzantine Empire by Muslims.</p> <p>1403: Plague in Egypt.</p> <p>Colonial Voyages, Trade and Political Treaties:</p> <p>1405-1407: China: Admiral Zheng, a Muslim, led his naval forces to Vietnam, Malacca, Thailand, and Sri Lanka.</p>
1411-1460	<p>Battles Won:</p> <p>1423: Turkey: Murad II warred against Venice, now allied to Byzantines.</p> <p>1426: Mamluks: Khirokitia, Cyprus: General Barsbay defeated the Crusader Janis of Cyprus.</p> <p>1430: Turkey: Murad II expelled Venetians from Salonika. Captured Ionnina.</p> <p>1432: Turkey: Full-scale war against Hungary over Bosnia, Serbia.</p> <p>1437: North Africa: Portuguese launched crusade against Mirinids. Lost outside Tangier.</p> <p>1437: North Africa: Portuguese king's brother Fernando was defeated and imprisoned in Fez. He died five years later.</p> <p>1439: Turkey: Murad II reimposed rule over Serbia.</p> <p>1443: Turkey: Murad II defeated the combined forces of Hunyadi, Brankovic, and Ladislaw VI of Poland at Zlatica.</p> <p>1444: Turkey: Murad II made a truce with Hungarians and got back Belgrade.</p> <p>1444: Turkey: Hungarians broke the truce but were crushed at Varna by the new sultan Mehmed II. Ladislaw was killed.</p> <p>1448: Turkey: The reinstated sultan Murad II won major victories over Hungarian armies. Won the second battle of Kosovo.</p> <p>May 29, 1453: Turkey, Major Victory: Land-sea siege Constantinople by one hundred twelve thousand soldiers. Devastating bombardment by twenty-five-foot-long supercannons that lobbed quarter-ton projectiles over a mile. After a campaign that began eight hundred years ago, the Queen of the Cities fell after a</p>

monthlong siege. Constantine IX died. Pope's orders for a crusade went unheeded. Venice and Genoa sent envoys.

Hadis: In jihad against Constantinople, one-third of Muslims will allow themselves to be defeated, which Allah cannot forgive; one-third will be killed in battle, making them wondrous martyrs; and one-third will be victorious.

1455: Turkey: Sultan Mehmed II's (Fateh) forces captured Moldavia.

1456: Turkey: Captured Athens and whole of upper Greece.

1460: Turkey: Mehmed II completed the conquest of Peloponnesus.

Constantinople:

672: Seven-year siege (Emir Muawiya).

715-717: Two-year siege (Caliph Sulaiman).

1097: Unsuccessful siege by the Christian armies of the First Crusade.

1203-04: Siege and capture of the city by the Fourth Crusade resulting in huge loss of Christian life.

Ottoman sieges: first in 1390, second in 1395, third in 1397, fourth 1400-02 with blockade by Bayazid I, fifth in 1411 by Musa and sixth by Murad II.

1422: First use of firearms (short guns called Falcons) by the Ottomans under Murad II.

1453: Conquered by Sultan Mohammad Fateh (Mehmed II).

Battles Lost:

1415: North Africa: Portuguese captured Ceuta, the stronghold of Mirinids. Gibraltar was also captured.

1416: Gelibolu, Turkey, Naval Battle: Defeated by Venetians. Sultan Mehmed was forced to allow them trading posts.

1424: Turkey: Sigismund of Hungary captured Belgrade.

1432: Turkey: Murad II besieged Constantinople for the second time, without success.

1440: Turkey: Murad II failed to capture Belgrade despite a long siege.

1441: Turkey: Ottoman army repulsed by Janos Hunyadi of Hungary.

1455: Spain: Henry IV of Castile with the pope's backing attacked and ravaged areas around Granada.

1456: Turkey: Naval fleet destroyed by Janos Hunyadi's forces.

1456: Turkey, Siege of Belgrade: City walls were breached by artillery, but siege was repulsed. Ottomans failed to occupy the Hungarian plains.

Campaigns Launched:

1411: Turkey: Musa, s/o Bayazid, after defeating his brother Sulaiman besieged Constantinople.

1421: Turkey: Murad II succeeded Sultan Mehmed. Immediately started preparing for attack on Constantinople.

1422: Turkey: Murad II besieged the city but was distracted by rebellion by his brother Mustafa.

1451: Turkey: Murad II died at Edirne, and Mehmed II was recrowned. Immediately prepared for the final assault on Constantinople. Built forts (Rumeli Hisar) on both sides of Bosphorus and emplaced his twenty-five-foot-long supercannons built by Urban, a Hungarian, capable of launching a quarter-ton projectile over a mile. Sent a message to Constantine XI by killing his envoys sent to protest the preparation.

Rebellions and Civil Strifes:

1411: Turkey: Musa, s/o Bayazid, defeated his brother Sulaiman.

1412: Qara Qoyunlu: Captured Baghdad.

1413: Turkey: Prince Mehmed I was triumphant over all his brothers.

1413: India: Tughluq dynasty overthrown by the Sayyids.

1416: Timurid: Shahrukh undertook unsuccessful campaigns to recover lands from Aq Qoyunlu (White Sheep).

1423: Turkey: Murad II defeated and killed Mustafa.

1426: Mongols: Haji Giray, a descendent of Genghis, set up khanate in Crimea.

1428: Uzbeks: Abul Khayr united the Uzbeks and engaged Timurids.

1440: Qara Qoyunlu: Jahan Shah conquered Iraq, Azerbaijan, etc., and set up capital at Tabriz. Resisted by Aq Qoyunlu.

1444: Turkey: Faced with domestic unrest, Murad II abdicated in favor of his son Mehmed II (Conqueror).

1446: Turkey: Following the criticism of Mehmed II for his overenthusiasm to capture Constantinople, Murad II returned to the throne.

1447: Timurids, Samarqand: On the death of his father, Shahrukh, Ulugh Beg was confronted by his very own son Abd al-Latif.

1447-88: Safavids: Sheikh Junaid (1447-60) and his son Sheikh Hyder (1460-88), descendents of Sheikh Safi ud din, organized their troops as Red Caps (Qizilbash) and expanded Shiaism in Persia.

1451: Uzbeks: Abu Said after overthrowing Abdul Latif laid claim to the Timurid throne but was resisted by Qara Qoyunlu.

1451: India: Lodhis replaced the Sayyids.

Betrayals:

1412: Turkey, Betrayal: Mehmed, s/o Bayazid, entered into agreement with Byzantines against Musa, his brother.

Atrocities:

1416: Heretical Sufi Badr al-Din of Rumelia (Asia Minor) executed by Ottomans.

	<p>1449: Timurids, Patricide and Fratricide: Abdul Latif killed his father, Sultan Ulugh Beg (the astronomer), and his own brother Abdul Aziz.</p> <p>Positive Events:</p> <p>1413: Turkey: Mehmed I attempted religious and political unification of the state.</p> <p>1416: Timurids: Shahrukh, s/o Timur, was a devout Muslim. He wanted to atone his father's excesses in Persia by building mosques.</p> <p>1416: Timurids: Shahrukh's son Ulugh Beg was a keen astronomer. He built a major observatory in Samarqand.</p> <p>Voyages and Establishments of Colonies:</p> <p>1420: Portugal: Goncalves Zarco discovered the Madeira Islands in the Atlantic.</p> <p>1448: Portugal: Dinis Dias discovered Cape Verde, the westernmost part of Africa.</p>
1461-1510	<p>External Battles Won:</p> <p>1461: Turkey: Captured Trebizond on Black Sea.</p> <p>1462: Turkey: Sultan Mehmed II led a force to subdue Vlad III (Dracula) of Walachia who had impaled over twenty-three thousand Turks and Bulgarian Muslims. Dracula attacked at night to kill the sultan but was unsuccessful. Walachia was captured, but Dracula committed even more atrocities by impaling another twenty thousand Turks and Bulgarians in the capital city of Targoviste. He was known as Vlad the Impaler because of his macabre and sadistic practices.</p> <p>1464: Turkey: Captured Morea, Greece, and expelled Venetians, new allies of Greece.</p> <p>1463-79: Turkey: War with Venice. Venice's trade affected due to high taxes levied by the Turks.</p> <p>1463-64: Turkey: Annexed Bosnia.</p> <p>1467: Turkey: Sultan Mehmed II campaigned against Albania. Death of the rebel Iskender Beg in 1468.</p> <p>1468: Turkey: Mehmed II captured Qaraman.</p> <p>1470: Turkey: Captured Negroponte from Venetians.</p> <p>1474: Turkey: Conquered Cilicia.</p> <p>1475: Turkey: Expelled Genoese from the Black Sea, Kefe, and Theodosia.</p> <p>1477: Turkey: Invaded northern Italy and threatened Venice itself.</p> <p>1479: Turkey: Siege of Scutri forced Venice into a treaty. Ended war started in 1463. Captured Lemnos and Albania.</p> <p>1480: Turkey: Sultan Mehmed II captured Otranto, south Italy.</p> <p>1483: Granada, Spain: Nasir emir Mulay Hassan resisted Isabella and Ferdinand, but they captured Boabdil, his son.</p> <p>1484: Turkey: Campaigned against Polish forces in Moldau.</p> <p>1497: Turkey: Began a four-year war after Albert of Poland invaded Moldavia.</p>

1499: Turkey: Zonchio, Naval Battle: Admiral Kemal Reis defeated the Venetian fleet.

1500: Turkey, First Naval Battle of Lepanto: Won by the Ottomans.

1503: Turkey: Won complete control over Greece.

External Battles Lost:

1471: North Africa: Portuguese captured Tangier from the Hafsid dynasty.

1473: Turkey, Cyprus: Captured by Venetians.

1487: Spain: Malaga was captured from Granada and sold its Muslims into slavery.

1490: Spain: Almeria fell. Granada was reduced by 75 percent. Ferdinand set up a siege camp called Santa Fe.

Jan 2, 1492: Granada, Spain: Following an eight-month siege, Catherine of Aragon and Alfonso of Castile defeated Sultan Boabdil, extinguishing forever the seven-hundred-year Muslim rule in Spain. Boabdil threw the keys and walked away. This was captured in a painting by Alfred Dehodensq.

1492: Turkey: Expedition to Styria, Carinthia, and Carniola. Defeat at Villach.

1497-1510: Spain: Spain extended its conquests to North African coast.

1505: Spain, North Africa: Ferdinand chasing Muslim forces captured Mers-El-Kebir port.

1509: Spain: Led a crusade against Muslim kingdoms of Oran, Bougie, and Tripoli.

External Treaties:

1479: Turkey: Forced Venice to make peace after the siege of Scutri. It gave up Albania and possessions in Peloponnesus.

Rebellions, Civil Strifes, and Dynastic Wars:

1465: Morocco: Wattasids toppled Merinids and ruled until 1549.

1467: Uzbeks, Civil War: Jahan Shah of Qara Qoyunlu was killed fighting Uzun Hasan of Aq Qoyunlu. Aq Qoyunlu expanded into Persia and Iraq.

1468: Albania: Campaigned against rebel leader Iskender Beg.

1468-96: Turkey, Mamluks: Mamluk al-Ashraf Qait Bay achieved military success against Ottomans but that resulted in economic ruin.

1469: Timurid: Abu Said while fighting the weakened Qara Qoyunlu was captured and executed. Hussain Bayqara, the last Timurid, became sultan who ruled until 1506.

1473: Uzbeks, Ottomans: Uzun Hasan of Aq Qoyunlu was defeated at Bashkent on Euphrates by Mehmed II.

1475: Turkey: Crimean Tartars became vassals.

1478: Uzbeks: Aq Qoyunlu began to disintegrate following Uzun Hasan's death.

1481: Turkey: Sultan Mehmed died succeeded by Bayazid II who with Janissary support won the civil war with brother Djem.

Betrayal: Brother Djem fled to Rhodes. In 1495, he was strangulated. Bayazid II introduced reforms and helped in religious consolidation.

- 1482: Granada, Spain: Civil war between the Nasirid emir Mulay Hassan and his son Abdullah (Boabdil). Isabella and Ferdinand prepared for their final takeover.
- 1485-91: Turkey, Mamluks: Bayazid II initiated a seven-year war. Mamluks won at Qaysriyya in 1488. They lost Adana and Tarsus.
- 1490: Uzbeks: Turmoil occurred after Aq Qoyunlu Yaqub's death. Dynasty finally collapsed in 1514.
- 1492: Plague in Egypt weakened the Mamluks.
- 1497: Mughals, Samarqand: Captured by Zaheer ud din Babar following the death of Shah Rustam.
- 1500: Ozbeg: Mohammad Shaybani defeated the last of the Timurids in Khwarizm.
- 1501: Safavids: The fifteen-year-old Ismail, the leader of Safi order of Sufis, declared to seek revenge against Aq Qoyunlu. He defeated them, captured Tabriz, and made it the capital of the Shia Safavid dynasty.
- 1502: Safavids: Shah Ismail of Tabriz captured Hamadan from Aq Qoyunlu.
- 1504: Uzbeks, Mughals: Mohammad Shaybani drove out Babar from Samarqand.
- 1504: Afghanistan: Zahir ud din Babar of Farghana occupied Kabul and made forays into India.
- 1505: Uzbeks: Attacked Khorasan and Afghanistan.
- 1507: Uzbeks: Shaybani captured Herat and established his dynasty in Transoxiana.
- 1507: Safavids: Defeated remnant army of Aq Qoyunlu. Aroused Ottoman apprehensions.
- 1508: Safavids: Captured Baghdad and started rule over Iraq and Khuzestan. Declared Twelver Shiaism as the state religion.
- 1510: Safavids, Uzbeks: Defeated Shaybani near Merv and captured Khorasan. Shaybani was killed.
- 1511: Alids, Morocco: Established power in West Africa. Defended against Turks and Portuguese.
- 1512: Safavids: Shah Quli revolted in Anatolia inspired by Safavids.
- 1514: Safavids, Turkey: Safavid Ismail was defeated by Selim at Chaldiran (Azerbaijan). Major setback to Safavids.
- 1515: Mamluks, Turkey: Destruction in Armenia of Dhul Qadr's army.
- 1515: Mamluks: Conquered Yemen.
- 1516: Mamluks, Turkey: Selim defeated Mamluk Qanswah al-Ghawri at Marj Dabiq, Syria.
- 1517: Mamluks, Turkey: Mamluks finally defeated in Egypt by Selim, who got the keys of Harem Sharif and assumed the title of caliph.
- Rebellions, Impact:**
- 1468-96: Turkey vs. Mamluks: This civil war depleted the resources of both antagonists to the gain of Byzantines.

1481-95: Civil war between Bayazid II and his brother Djem led to Djem's strangulation in 1495.

Betrayal:

1467-70: Aq Qoyunlu accepted Venetian arms to fight against Ottomans.

Repressions:

1478: Spanish Inquisition: Extreme cruelty against converts to Islam and Judaism for heresy started by Isabella of Castile.

1479: Spanish Inquisition: Was also imitated by Ferdinand of Aragon, although with much less ferocity.

1483: Spanish Inquisition: Ferdinand and Isabella appointed Dominican priest Tomas de Torquemada as the grand inquisitor. He conducted one-sided trials of Jews and Muslims and committed brutal torture and killings. He was notorious for burning the library of Granada along with its priceless books and manuscripts.

1492: Spanish Inquisition: Against Jews began, and one hundred thousand Sephardic Jews were expelled. Many migrated to Ottoman lands.

1499: Spanish Inquisition: Started against Muslims who were forced to observe sacraments. The revolt in Alpujarras was brutally suppressed.

1501: Spanish Inquisition: Isabella ordered the expulsion of all Muslims. They must pay a heavy departure tax and were not allowed to take their children with them. Many Moors opted to convert.

1502: Spanish Inquisition: Islam was formally outlawed in Spain.

1508: Safavids: Shah Ismail ordained compulsory conversion to Twelver Shiaism in Iraq and Persia.

1510: Safavids: Shah Ismail ordered the skull of Sultan Shaybani to be converted into a gold-rimmed drinking vessel. This was sent as a message to the Ottoman sultan Bayazid II.

Atrocities:

1462: Turkey: Sultan Mehmed II led a force to subdue Vlad III (Dracula) of Walachia who had impaled over twenty-three thousand Turks and Bulgarian Muslims. Dracula attacked at night to kill the sultan but was unsuccessful. Walachia was captured, but Dracula committed even more atrocities by impaling another twenty thousand Turks and Bulgarians in the capital city of Targoviste.

1507: Portugal: After capturing Zafi in Morocco, they began exporting Moorish, Berber, and Jewish slaves.

Internal Treaties and Positive Events:

1481: Uzbeks: Qazi Isa, vizier of Yaqub, the Aq Qoyunlu sultan, as a devout Sunni eradicated Uzbek nomadic customs.

- 1470: Turkey-Persia: Treaty with Aq Qoyunlu's Uzun Hasan.
 1491: Egypt-Turkey: Peace treaty after a rare Turkish defeat by Mamluks.

Voyages and Establishments of Colonies:

- 1470: Portugal: Joao de Santarem and Pedro de Escolar sent by King Fernando Gomes to explore Gold Coast of Africa. Established port of San Jorge del Mina.
 1487: Portugal: Bartholomew Diaz rounded the Cape and entered the Indian Ocean.
 1490: Portugal: Reached Congo and initiated conversions to Christianity, thereby preventing the spread of Islam to southern Africa.
 1492: Spain: The victorious Isabella and Ferdinand sponsored Christopher Columbus for a voyage to India to seek routes that bypass the strong Ottoman control over the Eastern trade. He discovered Americas instead (San Salvador, Bahamas).
 1494: More islands of West Indies discovered.
 1498: Trinidad discovered.
 1497: Britain: John Cabot (the Italian Giovanni Cabotto) discovered Newfoundland.
 1497-98: Italy: Amerigo Vespucci navigated North American landmass. America is named after him.
 1498: Portugal, Vasco da Gama: Naval expedition to the Indian Ocean, Zanzibar and Malabar coasts. He sailed with Captain Ibn Majid from Africa to India and landed at Calicut. Muslim merchants resented this incursion.
 1500: Portugal: Pedro Cabral discovered Brazil.
 1502-1504: Honduras, Nicaragua, Panama, etc.
 1505: Mombasa, India: Portuguese Francisco de Almeida established fortified trading posts in Mombasa, Calicut, and Cochin, India, and Colombo, Ceylon.
 1508-09: Portugal: Ponce de Leon colonized Puerto Rico.
 1509: Portugal: Ray de Sequeira reached Malacca Straits, Indonesia (gateway to South China Sea and Pacific).

Colonial Trade and Political Treaties:

- 1501: Portugal: Vasco da Gama landed for the second time in India. Blocked Arab access to the Red Sea. As a result, spice prices in Europe dropped by 75 percent and Alexandria went into deep decline due to shipping around Africa.

Conquests and Colonizations:

- 1499-1503: Turkey: Second Turko-Venetian war. Turkey gained possessions in Peloponnesus.
 1502: Egypt: Portuguese defeated the combined fleet of the Mamluks and sultan of Gujarat.
 1509: Turkey: Francisco da Almeida inflicted naval defeat on the Ottoman fleet at Diu, India.

	<p>1510: India: Goa was seized by the Portuguese.</p> <p>1512: Portugal: Alfonso d'Albuquerque seized control of the Malacca Strait from the Muslim sultan.</p> <p>1507: Hormuz: Portuguese captured the important port and fort that controlled access to Persian Gulf.</p> <p>1509: Diu, India, Naval Battle: Portuguese Dom Francisco de Almeida defeated the alliance of Mamluk Bahri of Egypt, Ottoman sultan Bayazid II, Smoothiri Raja of Kozhikode, and Venetian and Dubrovnik republics led by Mir Hussain Pasa.</p> <p>1510: Portugal: Captured the Indian port of Goa.</p> <p>Resistance to Colonization:</p> <p>1509: Spain: Following the relative failure of the crusade by Ferdinand, Arab sailors organized themselves as Barbary pirates that caused havoc with Christian merchant shipping. They extended their attack to the English coast and forayed as far as Iceland.</p>
1511-1560	<p>Battles Won:</p> <p>1520: Turkey-Algeria: Turkish admiral and pirate Khayr al-Din Barbarossa put his conquests in Algeria under Sultan Selim and led naval expedition against Spain.</p> <p>1521: Turkey: Conquered Belgrade, breaking through the Danube defense line.</p> <p>1522: Turkey: Two hundred thousand troops attack defeated Hospitallers, the Knights of Saint John, and conquered Rhodes. The knights moved to Malta.</p> <p>1526: Turkey: Sulaiman won the major battle of Mohacs over King Louis of Hungary who was killed.</p> <p>1529: Turkey: Sulaiman took Buda for the second time, marched into Austria to lay siege to Vienna.</p> <p>1532-33: Turkey: War with Austria. Conquest of guns.</p> <p>1534-74: Turkey: Turkish forces in North Africa. Conflicts with Spain and emperor Charles V started.</p> <p>1534: Tunis: Recaptured from the Portuguese by the Ottoman and Barbary Corsair naval force commanded by Khayr al-Din Barbarossa.</p> <p>1536-41: Turkey: Emperor Charles V forces engaged Turkish forces in Tunis and Algeria. Ottoman Beglerbegs regime in North Africa 1536-87.</p> <p>1537: Turkey: With French support, Ottomans helped by Khayr al-Din made war against Venice and lay siege to Corfu.</p> <p>1537-57: Morocco: Sadi Sharifs defeated and expelled Portuguese from southern Morocco.</p> <p>1538: Turkey: Ottomans inflicted major defeat on the navies of the Holy League (Charles V, Venice, and the pope) in the battle of Preveza, gaining naval supremacy in the Mediterranean.</p>

1540: Persia: Shah Tahmasp having dealt with Uzbeks began a twenty-year jihad against Christian Georgia and Caucasus. Many Christians were enslaved. Some rising to senior position after conversion.

1541: Algeria: Naval enterprise of Charles V against Turkish fleet off Algiers failed.

1541-47: Turkey: War against Austrian king Ferdinand following the death of John Zapolyai of Hungary. Turkey prevailed.

1551: Turkey: Turkish admiral Piri Reis took over Muscat.

1551: Turkey: Hospitallers, Knights of Saint John, surrendered Tripoli (Libya).

1551-62: Turkey: Resumption of Hungarian war with the Hapsburgs.

1554-56: Turkey: Admiral Dragut (Turghud), successor to Barbarossa, completed the conquest of North African coast. Drove the Spanish out of Mehedia, Tunisia.

Battles Lost:

1511: Portuguese, Albuquerque wrested control over Straits of Malacca, Indonesia, from the Muslim sultan.

1527: Turkey: Archduke Ferdinand of Austria recaptured Buda.

October 16, 1529: Turkey: First siege of Vienna failed. Turkish army handicapped by the absence of their main assault weapon, heavy artillery, which could not be brought over because of the wet weather. Janissaries breached Corinthian gate but withdrew because of losses.

1532: Turkey: Sulaiman marched out of Buda but was repulsed by Corinthians and Croatians.

1536: Turkey: To stamp out Muslim pirates at sea, Charles V, the holy Roman emperor and the king of Spain, dispatched a fleet under Andrea Doria. Khayr al-din was defeated, and Tunis was lost.

1540: Turkey: Besieged Buda, but that was unsuccessful.

1551: Turkey: Campaign against Malta failed.

External Treaties:

1533: Turkey: Peace treaty with Austrian Hapsburgs.

1536: Turkey: Commercial treaty with France king Francois I was directed against emperor Charles V. As French took Turin, the Turkish allied forces attacked the Italian coast.

1538: Turkey: France's Francois I annulled the treaty with Turkey. He joined the Holy League, a grand alliance of Charles V, Venice, and Pope Paul III against Turkey. (There was no counterpart alliance of Muslim powers.)

1540: Turkey: Peace treaty with Venice.

1547: Turkey: Multilateral treaty with Austria, Venice, France, and the pope acknowledged Turkish supremacy over Hungary.

Rebellions, Civil Strifes, and Dynastic Wars:

1511: Morocco: Sadi Sharif dynasty prepared for defense against attacks by Portugal and Turkey.

1511: Babar, the Mughal warlord, captured Samarqand with the support of Shah Ismail of Persia. The local people soon drove out him on the misplaced suspicion of him being a Shia.

1511-12: Turkey: Civil war between Satan Bayazid and his younger son Selim.

1512-13: Persia-Turkey: Shia rebellion in Anatolia by Shah Quli stroked by the Safavids.

1512-20: Turkey-Persia: Bloody repression of Shias by Sultan Selim I Yavuz (the Grim). Political conflict with Safavids.

1513: Persia: Safavid Shah Ismail wrested control over Khorasan.

1514: Persia: Shah Ismail, who now controlled Iraq and western Persia, killed the last Aq Qoyunlu leader Murad.

1514: Turkey-Persia: Safavid Shah Ismail was defeated by the sultan Selim I in the battle of Chaldiran (Azerbaijan). Mesopotamia and Kurdistan came under Turkish rule.

1515: Turkey: Destruction of Dhul Qadr, the vassals of Mamluks in Armenia by Turks.

1515-16: Egypt-Turkey: Mamluks conquered Yemen. Attempt on Aden failed.

1516: Egypt-Turkey: Using heavy artillery, Selim I defeated Mamluk Qanswah al-Ghawri at Marj Dabiq and entered Damascus.

1517: Egypt-Turkey: Selim I conquered Egypt and ended Mamluk rule. Cairo was sacked, and the leader Tuman Bey was hanged. The last of the puppet Abbasid caliph, Mutawwakil, was sent to Istanbul. Selim I assumed the title of caliph and received the keys of Mecca, the cloak, and the banner of the Prophet and the sword of Caliph Omar.

1520-66: Turkey: Sultan Sulaiman (Qanuni the Lawgiver) took Ottomans to the height of their power through reforms and conquests.

1524-76: Persia-Turkey: Shah Tahmasp continued his campaign against the Turks and Uzbeks.

1526: India: Zahir ud din Babar defeated the last Lodhi sultan of Delhi at the first battle of Panipat. Start of the Mughal Empire.

1527: India: In Deccan the Bahmani dynasty collapsed and split into five smaller dynasties.

1527: Persia: A Safavid army defeated an invasion by Uzbeks at Jami.

1529: Algeria: Was taken by the Turks.

1530-56: India: Mughal emperor Humanyun lost the war against Sher Shah Suri and went into exile 1540-55.

1532: Persia: Recovering from their defeat at Jami, Uzbeks mounted an invasion of Khorasan but failed to take Herat.

1534: Turkey-Persia: Sulaiman campaigned against Shah Tahmasp I. Conquered Tabriz and Baghdad and later Azerbaijan and Iraq.

1536: Persia: Uzbek leader Ubayd Ullah abandoned attempt to conquer Khorasan and came under the ambit of the Safavid rule.

1537: Persia-India: Shah Tahmasp I, now freed from the Uzbek issue, attacked Afghanistan and briefly took over Kandahar from the Mughals.

1538: Turkey: Yemen was brought into Turkish control.

1540-55: India: Sher Shah Suri's family ruled over Delhi instead of the Mughals.

1541: Turkey-Persia: Turkey took control of Safavid capital Tabriz.

1545: India: Sher Shah Suri was succeeded by Islam Shah.

1548-55: Persia-Turkey: War broke out ending in treaty of Amasya.

1549: Morocco: Sadi Sharifs pushed the Wattasids out of Fez and ruled until 1659.

1549-54: Morocco-Turkey: Sadi Sharifs repulsed Turkish attacks.

1550: Turkey: Occupied Tripoli, Libya, as a base for consolidating hold on North Africa.

1554: Turkey-Persia: Launched a new campaign but failed to engage the Safavid troops.

1556: Turkey: Ottomans toppled the Ziyarid dynasty in western Algeria.

Betrayals:

1548: Turkey-Persia: Shah Tahmasp's rebellious brother Alqar Mirza sided with Sulaiman I when the latter invaded Persia hoping to crush the Shia Safavid regime.

Repressions:

16th Century: Spain: Following the surrender of the state of Grenada in 1492, full fledged campaign of repression commences against the Muslims. Moors have been living peacefully under Christian rule for ages are subjected to curtailment of movement, punitive taxation, confiscation of property, ethnic cleansing and forced conversion under the threat of expulsion, extreme forms of torture or death. Hundreds of thousands of Muslims were baptized and those who did not were expelled to North Africa. These activities continued till 1615 when Spain was practically cleared of all Moors (Ref: LHC).

1512-20: Turkey: Sultan Selim Yavuz murdered his brothers and other Ottoman males. He also started bloody suppression of Shias. His orders resulted in the death of forty thousand people.

1517: Turkey: During the sack of Cairo, up to ten thousand Mamluks were killed, and the ruler Tuman Bey was hanged.

1533: Persia: Shah Tahmasp I at age nineteen asserted his authority by executing his most powerful emir, Hussain Khan Shamlu.

Atrocities:

1526: Spain: Three thousand Moors are massacred in Valencia by German mercenaries and mosques and pulpits destroyed, (Ref: LHC).

1530-1607: Spain: Inquisition regime: The victorious Christians embarked on a vicious inquisition regime called 'auto de fe' against fresh Jewish and Muslims converts to test their veracity. Inquisition was undertaken under ecclesiastical authority (by Dominicans and Franciscan monks) with the knowledge of the Pope.

Horrible equipment of torture was designed and used. Most were found guilty and sentenced to punitive fines, jail terms, flogging or death by garroting or burning. People could be subjected to 'auto de fe' on the flimsiest of excuses. Some illustrative instances include, (Ref: LHC):

1538: Padre Juan Oliver, the Christian priest of Albarracin for being a secret supporter of the sect of Mahomet.

1541: Mari Gomez (an elderly lady) tortured on the suspicion of being a secret Muslim.

1585: Five culprits of Saragossa burnt.

1597: Bartholeme Sanchez of Toledo was suspected of being a Moor due to his insistence on cleanliness.

1606: Maria Roayne for bringing sweets at a wedding party (a Moorish custom).

1607: Nofre Blanche of Saragossa for possessing some papers in Arabic.

1536: Germany: Reformist leaders of the church, John of Leyden and Jacob Hutter of Tirol, Austria, tried, tortured, and executed by the Catholic bishop of Munster.

Internal Treaties and Positive Events:

1550: Indonesia: The strong Muslim sultanate of Aceh was established in Sumatra. Islam spreads throughout Malaysia and Indonesia.

1555: Persia-Turkey: After four decades of conflict, the treaty of Amasya was concluded. Turkey kept Mesopotamia and Baghdad. Georgia was divided. Turkey undertook not to harm Shia shrines.

Voyages and Establishments of Colonies:

1513: Spain: Nunez de Balboa became the first European to reach the Pacific.

1513: Portugal: Discovered Mauritius and became the first Europeans to reach China. (*The first Arab vessel to reach Hangchow, China was in 787*).

1519-21: Portugal-Spain: Ferdinand Magellan started on a round-the-world voyage.

1524: Italy: Giovanni da Verrazano discovered Angouleme, the Manhattan island.

1526: Spain: Francisco Pizzaro discovered Peru. Inca ruler Atahualpa killed in 1533.

1528-72: Christian missionaries converted a large native population of Mexico.

1529: Germany: Welsers of Augsburg established colonies in Colombia and Venezuela.

- 1534: France: Jacques Cartier sent by Francis I to North America.
- 1541: France: Jacques Cartier discovered the Gulf of Saint Lawrence and established a colony at Quebec.
- 1542: Spain: Explorers discovered California and area around Mississippi and Amazon. Established Merida in Yucatan.
- 1543: Portugal-Japan: Explorers reached the island of Tanegashima, Japan. Established trade through Nagasaki.
- 1549: Portugal-Japan: Jesuit Francis Xavier preached Christianity.
- 1553: Britain: Traders arrived in Nigeria.
- 1557: Portugal-China: Established the colony of Macao, near Canton.
- 1559: Spain: Colonists arrived in Florida but were repulsed by the native Indians. Established Saint Augustine, Florida, the first European colony in North America in 1565.

Colonial Trade and Political Treaties:

- 1511: Portugal: Offered Thai kingdom firearms in return for trading rights.
- 1528: Persia: The Safavids purchased artillery from Portugal, which they used to defeat an Uzbek invasion at Jami.

Conquests and Colonizations:

- 1519-21: Spain: Hernando Cortes defeated Aztecs of Mexico.
- 1522-58: Mexico: Spanish settlers destroyed artworks, manuscripts, etc., of the Aztecs.
- 1527: Somalia: In response to attack by the Somali ruler Ahmad Gran on Abyssinia, the Coptic Christian ruler appealed to Portugal for help.
- 1530: Spain: Alvarado defeated Kiche and Kaqchikel, the Mayan tribes.
- 1535: Wales: Henry VIII under the act of union brought Wales under English control. Welsh language could no longer be used for official business.
- 1541: Cristoforo da Gama, son of Vasco, came to the help of Christian Copts of Ethiopia and defeated Ahmad Gran, the Somali ruler who was expelled, and Negus was restored.
- 1552: Russia: Ivan IV captured the Tartar city of Kazan and proceeded to invade Astrakhan. For the first time Muslims came under the Russian rule.
- 1567: Portugal-France: Portuguese killed French colonists in Brazil and founded Rio de Janeiro.

Resistance to Colonization:

- 1522: China: Expulsion of Portuguese.
- 1556: Turkey: Naval war against the Portuguese in the Indian Ocean.

1561-1610**Battles Won:**

1565: India: Defeat of the Hindu kingdom of Vijaynagar after the unification of Muslim dynasties.

1565-68: Turkey: War with Austria.

1567: Algerian pirates attack Rethymnon city on Crete.

1569: Turkey: Clash with Russians in the Caucasus that would last until World War I three centuries later.

1570: Turkey: Encouraged by Don Joseph Nasi, the Jewish minister, who wanted a safe haven for Jews fleeing persecution in Europe, Turkey wrested Cyprus from the Venetians.

1570: Turkey: Selim II defeated the combined fleets of Venice and Spain and captured Cyprus.

1570-74: Algeria-Morocco: Spanish pushed out of North Africa by Khayr al-Din Barbarossa and Turks.

1571-73: Turkey: Rapid recovery by Turkey. Reconstruction of the fleet after the collapse of Holy League.

1572: Turkey: Recaptured Tunis from the Austrians.

1573: Turkey: Three-year war with Venice resulted in the surrender of Cyprus to the Turks.

1575: Algerian pirates capture the ship carrying Spanish author Miguel de Cervantes.

1578: Morocco: During the "War of Three Kings" during the battle of al-Kasr al-Kebir (Alcazar), the emir of Fez and his rival were both killed in the battle, so was Sebastian I of Portugal. The Portuguese refused to believe that their crusading king was dead, giving rise to a cult.

1591: Tondibi, Mali: Moroccan forces under Judar Pasha defeated Askia Ishaq II of the Songhai empire.

1593-1606: Turkey: War with Austria, which was supporting an uprising in Walachia.

1596: Turkey: Sultan Mehmed III defeated Hungarian forces at Keresztes.

Battles Lost:

1565: Turkey: Second campaign against Malta, which was besieged from May 20 to September 11, 1565. Valletta withstood the onslaught until the arrival of a Spanish relief force.

1571: Turkey: Historic defeat at the naval battle of Lepanto. Destruction of the Turkish fleet by the combined Spanish-Venetian fleet of the Holy League under Don Juan of Austria. The Holy League had fifty galleys with thirty thousand sailors. They lost seven thousand men. The Turks lost three hundred ships and fifteen thousand men. The Turks rebuilt their navy within two years. The defeat could be partly attributed to the negligence of Sultan Selim II (known as Selim,

the Sot) the luxury-minded son of Sulaiman the Magnificent.

1572: Turkey: Don Juan of Austria captured Tunis.

1580: Spain: Captured Ceuta, the city opposite Gibraltar. It will remain in their possession until 1688.

1595: Turkey: Romanian army of twenty-five thousand under Michael the Brave defeated an Ottoman force of one hundred fifty thousand under Sinan Pasha at the battle of Calugareni.

External Treaties:

1570: Turkey: Peace with the Russia.

1571: Turkey: Venice entered a peace treaty to protect her trading interests.

1578: Turkey: Venice formally conceded its interest in Cyprus. The once-formidable empire was left with Crete, Paros, and Ionian islands.

1606: Turkey: Twenty-year peace with Austria under the treaty of Zstiva-Torok. Austria lost territory in Hungary.

Rebellions, Civil Strifes, and Dynastic Wars:

1566: Turkey: With the death of Sultan Sulaiman, expansion of the empire ceased. His successor, Salim II, "the Sot," was not interested in government. Power resided with the Serbian vizier Soqullu Mehmed Pasa and the Jewish Joseph Nasi.

1568-70: Turkey-Yemen: Revolt by the Zaidis.

1574-90: Turkey: Under Sultan Murad III's rule, turmoil due to harem and palace intrigues ("petticoat rule"). Misuse of land tenure system and the recruitment of Janissaries.

1577-90: Turkey-Persia: War with Persia resulted in the takeover of Tiflis (1578), Kars, and Tabriz (1585). Georgia became a vassal state.

1578: Persia: Ismail II was replaced by his younger brother Khudabanda as a figurehead. The empire entered a decade of turmoil.

1578-1603: Morocco: Sharif al-Mansur conquered West Africa, Timbuktu, and Niger.

1580: Persia: Shah Khudabanda was deposed. His sixteen-year-old son was enthroned. He as Shah Abbas I restored the power of the empire.

1588-1629: Persia: Under Shah Abbas, the Safavid empire reached its zenith, in military matters, arts, culture, and sciences. Expulsion of Uzbeks from Khorasan and Turks from Azerbaijan, Iraq, and Diyarbakir.

1589-92: Turkey: Troop mutiny by Janissaries. This was the first of many mutinies that will bedevil the Ottoman rule for the next two hundred fifty years.

1590-1602: Persia: Shah Abbas I launched a major campaign to recover Khorasan and Sistan.

1592: India: Akbar conquered Sind.

1602-12: Persia-Turkey: State of war. Shah Abbas regained Tabriz, Yerevan, Kars, and Shirvan.

1605: Persia-Turkey: Major victory by Persia over Turkey at Lake Urmia. Safavids regained Diyarbakir, Mosul, and Baghdad.

1609-87: India: Deccan kingdoms fell and taken over by the Adil Shahis of Bijapur and Qutub Shahis of Golconda until taken over by the Mughals.

Betrayals:

1587-1629: Shah Abbas of Persia as well as the European powers considered Ottoman Turkey to be their gravest enemy. European aspirants of colonial power—Britain, Holland, France, Austria, and even Sweden—began to send feelers to Shah Abbas to which he acquiesced (Ref: HM).

A stream of European ambassadors, travellers, doctors, and opinion-molders (including Sir Anthony Shirley, Pietro della Valle, Jean Baptiste Tavernier, Jean Chardin, Engelbert Kaempfer, and others) began to flood Isfahan to understand and report the situation. They wanted to consolidate their plans with the Safavids for the containment of Turkey's military might and for thwarting its economic and cultural influence.

Atrocities:

1576: Persia: Succession was disputed after the death of Tahmasp I. His son Ismail murdered his elder brother Hyder and most male claimants. Ismail II alienated the court due to his behavior and attempted to adopt Sunnism.

1581: England: Jesuit priest Campion accused of distributing pamphlets against the Anglicans was executed.

1595: Turkey: Murad III was succeeded by Mehmed III who put all his brothers and half brothers to death. He died in 1603, succeeded by his fourteen-year-old son.

1609-14: Spain: Hapsburg king Philip III decreed the expulsion of all remaining Muslims as well as two hundred seventy-five thousand Moriscos (descendants of Muslims who converted to Christianity). Muslims first arrived in early 711 under the banner of Tariq ibn Ziyad. Muslim dominance over Spain and Portugal lasted for five hundred years. It ended in 1212 with the decisive defeat of Almohads in the battle of Las Navas de Tolosa at the hands of a massive united Christian army led by Alfonso VII of Castile. The last Muslim vassal statelet of Granada fell in 1493.

Internal Treaties and Positive Events:

1590: Persia-Turkey: Peace treaty. Parisians acquired territory to the Caspian Sea that included Georgia, Karabagh, and Shirvan. Turks gained Tabriz and Luristan.

1607: Persia-Turkey: Ottomans agreed to the territorial boundaries specified by the 1555 treaty of Amasya.

Voyages and Establishments of Colonies:

1569: Holland: Flemish cartographer Gerardus Mercator introduced the projection map to simplify navigation.

	<p>1576: England: Martin Frobisher while seeking the northwest passage to China discovered Baffin Island.</p> <p>1577-80: England: Francis Drake completed the round-the-world voyage.</p> <p>1581: Spain: Start of the slave trade to America with the arrival of the first slaves at Saint Augustine.</p> <p>1584: England: Sir Walter Raleigh founded the Virginia colony.</p> <p>1598: India: Competing with the Portuguese, the Dutch established their trading posts.</p> <p>1600: England, East India Company: Given royal charter by Elizabeth I in London. Over the next two hundred fifty years will become one of the most powerful commercial, political, and military enterprises of the world.</p> <p>1602: Holland: The Dutch East India Company with its headquarters at Batavia (Jakarta) was formed.</p> <p>1605-06: Spain: Explorers discovered the island of Vanuatu in the Pacific and sailed north of Australia.</p> <p>1606: Holland: The first European visitors arrived at Cape York, Australia, but were driven away by natives.</p> <p>Colonial Trade and Political Treaties:</p> <p>1580: India: Mughal king Akbar permitted Jesuit missionaries to visit India.</p> <p>1580: Turkey: Trade concessions to Britain.</p> <p>1606: Persia: Shah Abbas entered into trading agreement with East India Company to exchange English cloth with Persian silks, jewels, and carpets.</p> <p>1608: India: Akbar granted trading rights to the East India Company. First English ship arrived at Surat, Gujarat.</p> <p>Conquests and Colonizations:</p> <p>1595: Holland: Dutch colonies established in Guinea, Africa, and Indonesia.</p> <p>1602: England-Portugal: The English fleet led by James Lancaster arrived in Sumatra and captured a Portuguese ship. Its cargo was traded for pepper.</p> <p>1604: France: Samuel de Champlain established a colony in Nova Scotia.</p> <p>1607: England: First colony in North America at Jamestown, Chesapeake Bay.</p> <p>1609: Holland: Henry Hudson of the Dutch East India discovered areas round the present-day New York.</p> <p>1611-12: England-Ireland: Annexed Ulster, Ireland, after driving out Hugh O'Neill, Earl of Tyrone. In 1612, established Londonderry. Lands snatched from the Irish and given to Protestants.</p>
1611-1660	<p>Battles Won:</p> <p>1645-69: Turkey: War with Venice over Crete.</p> <p>1655: Algiers: British bombardment as reprisal for piracy.</p> <p>1657: Turkey: Restoration of Turkish rule over the Danube principalities.</p>

Battles Lost:

1609-14: Spain: Expulsion of Muslims by royal decree.

1622: Turkey: Campaign in Moldau against Poland ended in disaster.

1651: Turkey: Venetian naval victory at Paros.

External Treaties:

1622: Turkey: Peace agreement with Poland.

Rebellions, Civil Strifes, and Dynastic Wars:

1617-18: Turkey: Palace coup replaced the imbecile sultan Mustafa I with Osman II, 1618-22.

1618: Persia: Shah Abbas extended his authority to Georgia.

1622: Turkey: Janissary revolt following defeat in Moldau resulted in the killing of Osman II.

1622-23: Turkey: Mustafa I regained the throne but was deposed by a fatwa by the Sheikh al Islam. Murad IV was enthroned. He limited Janissaries' power.

1623: Persia-Turkey: Conquest of Baghdad and Mosul by Shah Abbas I. Baghdad returned to Persia after a century of Turkish rule.

1623-40: Persia-Turkey: War of changing fortunes.

1627: India: Shivaji Bhonsle founded the Maratha Kingdom, which will become very powerful during the seventeenth century.

1629-42: Persia-Turkey: Murad IV regained Iraq. Massacre of Shias in Baghdad.

1630: Turkey-Persia: Sultan Murad IV captured and destroyed Hamadan.

1633: Lebanon: Rebellion by Druze prince Fakhar ud din was supported by Italy, the pope, and Spain. Crushed by the Turks in 1635 with the execution of Fakhar ud din.

1637-1709: Persia: A series of weak rulers led to the decline of Safavid dynasty. Its end came when Ghilzai Afghans captured Kandahar.

1638: Turkey: Sultan Murad IV defeated the Safavids and regained Baghdad.

1640-48: Turkey: Influence of harem cliques and palace intrigues led to the ruin of state finances. Sultan Ibrahim killed by Janissaries.

1648: Turkey: Valide (mother) sultan Kassem through an intrigue replaced his son Ibrahim with her grandson, the eight-year-old Mehmed IV, 1648-87. Anarchy continued due to harem intrigues.

1650: Persia: Shah Abbas II captured Kandahar from the Mughals.

1656-61: Turkey: Grand Vizier Mehmed Koprulu's reforms revitalized the state. Influence of the harem and the Janissaries curtailed. Economic and military successes.

1658-59: Turkey: Suppression of revolts in Anatolia.

1656-1707: India: Aurangzeb was successful in the civil war for succession. Stabilized the dominance of Islam in India and Deccan. He prohibited societal

vices, gambling, prostitution, alcohol, and suttee (the self-immolation of widows). He antagonized Hindus by introducing Jizya. He also suppressed Shias.
1659-71: Algiers: Regime of Aghas of the army corps.

Internal Treaties and Positive Events:

1612: Persia-Turkey: Under the peace treaty, control over Azerbaijan and Georgia passed to the Safavids of Persia.

1638: Persia-Turkey: Treaty of Qasr-i-Shirin awarded Yerevan and Tabriz to Persia. Frontier was recognized.

Betrayals:

1656: Turkey: Kadizadelier, a puritanical movement seeking to prohibit, music, dancing, and other luxuries started in Turkey. This was banished to Cyprus by the grand vizier Koprulu Mehmed.

Atrocities:

1629: Persia: Shah Abbas I was succeeded by his grandson, the brutal Safi I. He ordered the murders of every other prince and ministers whom he disliked. The drawbacks of Safi I were somewhat compensated by his able and efficient minister, Mirza Taqi. The minister was murdered in 1645.

1640: Turkey: Sultan Murad IV was succeeded by Ibrahim, his debauched brother. His mother, Kassem, wielded real power. She cruelly ordered the execution of concubines the sultan became too fond of.

1642: Persia: Safi I was succeeded by his son Abbas II, but he was addicted to pleasures of the harem.

1656: Turkey: The puritanical sect Kadizadelier sought to prohibit depravities in the court were banished to Cyprus under the order of the minister Koprulu Mehmed.

1658: India: Aurangzeb was successful after a brutal war of succession. He imprisoned his father, Shah Jahan.

Voyages and Establishments of Colonies:

1616: England: William Baffin discovered Baffin Bay, Canada.

1616-22: Holland: Dutch explorers surveyed the west coast of Australia. They discovered only the desert and abandoned plans for colonization.

1619: Britain: Africans hired on contract and brought to Virginia to work on plantations. By 1660, all contracts were cancelled, and they were held as slaves.

1621: Holland: The Dutch West India Company was formed. They established colonies in northeast Brazil and Curacao and posed threat to the Portuguese and Spanish traders.

1634: France: Jean Nicolet discovered Lake Michigan and the Wisconsin region.

1624: Holland: Dutch paid less than \$100 in trinkets and beads to buy the Manhattan island from the natives. They renamed it Nieuw Amsterdam. Established Haarlem in 1636.

1625: Britain: William Courteen founded the colony of Barbados.

1626: France: Colonizers settled in Madagascar drove out the Hovas people who had been there for six hundred years.

1632: Britain: Lord Baltimore colonized Maryland.

1632: France: Colonized Acadia in Nova Scotia.

1633: Holland: Established trading post at Hartford.

1634: England: Puritan settlements in Connecticut.

1636: Britain: Roger Williams founded Providence, Rhode Island.

1637: France: Established trading posts along the Senegal River.

1637: Sweden: New Sweden company formed to establish colonies in North America. Established Port Christina (Wilmington), Delaware.

1638: Holland: Colonize Mauritius, named after John Maurice, the Dutch governor in Brazil.

1642: Holland: Abel Janszoon Tasman explored New Guinea and Australia. Discovered Tasmania and named it Van Damien land. Later in the year discovered New Zealand.

1642: France: Paul de Chomedey founded Ville Marie (Montréal).

1651: Britain: Fort Saint James established on Gambia River.

1652: Holland: Dutch East India Company colonized Cape Town, South Africa.

1655: Britain: Occupied Jamaica as a center for slave trade and as a base for attacks on Spanish ships.

Colonial Trade and Political Treaties:

1612: Turkey: Trade concessions to the Dutch.

1612: India: Jahangir gave more trade rights to England after two of their ships defeated four Portuguese galleons at Surat.

1616: Britain: Established trading links between Surat and Persia.

1617: Persia: King Philip III sent Don Garcia Figueroa to the Safavid court in Isfahan to establish diplomatic links.

1622: Persia: By driving out the Portuguese, with the help of the British, Safavid ruler Abbas gained control of the Persian Gulf trade (for a short time until the takeover by the British).

1635-36: Holland: Ended Portuguese monopoly over Brazilian sugar trade. Introduced sugarcane to Barbados.

Conquests and Colonizations:

1622: Algiers: British Bombardment in reprisal for piracy.

1624: Holland: Dutch invaded Brazil and captured Bahia (Salvador).

	<p>1628: Indonesia, Malacca: Dutch seized the strait from the Portuguese.</p> <p>1634: Holland: Drove out the Spanish from Curacao and English and the French from Saint Eustatius.</p> <p>1637: Holland: Drove out the Portuguese from Costa Rica.</p> <p>1641: Holland: The Dutch drove out the Portuguese for the second time from Malacca.</p> <p>1654: Portugal: Regained colonies lost to the Dutch.</p> <p>1655: Algiers: British Bombardment in reprisal for piracy.</p> <p>1656: Holland: Drove out Portuguese colonists from Sri Lanka.</p> <p>Resistance to Colonization:</p> <p>1622: Persia: Hormuz: Helped by the English, Shah Abbas recaptured the island from the Portuguese.</p> <p>1627: Algerian pirates raided Iceland.</p> <p>1631: Algerian pirates raided southern Ireland.</p> <p>1645: Algerian pirates attempted an attack on Edinburgh, Scotland.</p>
1661-1710	<p>Battles Won:</p> <p>1669: Turkey: Defeat of Venetian navy. Conquest of Crete resulted in the end of the Venetian empire.</p> <p>1667-81: Turkey: War with Russia.</p> <p>1690: Turkey: Launched a counterattack against Austria. Nish and Belgrade reconquered under Mustafa Koprulu.</p> <p>1710-11: Turkey: War against Russia resulted in victory and the return of Azov.</p> <p>Battles Lost:</p> <p>1663-64: Turkey: War with Austria ended in defeat at Saint Gotthard.</p> <p>1672: Turkey: Already at war with Poland, Turkey, attempted an invasion of Ukraine.</p> <p>1683: Turkey: Second siege of Vienna under Qara Mustafa with one hundred thousand men. It lasted for fifty-eight days during which the Viennese suffered starvation. It ended with the arrival of forces under Polish John Sobieski III and Charles of Lorraine. For this defeat, Qara Mustafa was strangled.</p> <p>1686: Turkey: Austria captured Ofen and Buda.</p> <p>1687: Turkey: The Holy League routed the Ottoman army at the second battle in Mohacs. Loss of Hungary.</p> <p>1688: Turkey: Belgrade conquered by the Austrians.</p> <p>1689: Turkey: Defeat at Nish.</p> <p>1691: Turkey: Reoccupation of Hungary was unsuccessful due to defeat at Szalankamen by Louis of Baden. Mustafa Koprulu was killed in battle, and his reforms came to an end.</p> <p>1696: Turkey: Peter the Great, czar of Russia, took over Azov.</p>

1697: Turkey: Major defeat at the hands of Prince Eugene of Savoy at Zenta on the Thiess.

1707: India: Aurangzeb's twenty-year campaign against the Marathas resulted in heavy losses and irreparable damage to the Mughal Empire.

External Treaties:

1664: Turkey: Twenty-year truce with Austria after its defeat.

1670: Turkey: Peace of Venice. All Crete except for three strongholds became Turkish.

1681: Turkey: Under treaty of Razdin, Kiev was ceded to Russia.

1687: Turkey: Grand alliance of Austria, Russia, Poland, and the pope against Turkey.

1699: Turkey: Treaty of Karlowitz acknowledged the first major defeat of the Ottomans and loss of territory; Austria took over Hungary, Transylvania, Slovenia, and Croatia; Poland took over Kameniecz, Podolia, and Ukraine; and Venice got control of Peloponnesus and most of Dalmatia.

1702: Turkey: Peace treaty acknowledged Russian suzerainty over Azov.

Rebellions, Civil Strifes, and Dynastic Wars:

1687: Turkey: After the loss of Hungary, revolt of the Janissaries and the deposition of Mehmed IV. Sulaiman II was enthroned.

1694-1722: Persia: Internal conflicts during Husayn's rule, the last of the Safavids. Danger from Russia and Turkey. Revolt in Yemen.

1694: Afghanistan: Anti-Shia movement.

1703: Turkey: Janissary revolt against Sheikh al Islam Feyzullah. Sultan Mustafa II was deposed.

1707: India: At the death of Aurangzeb, Hindu revolt by Rajputs and Marathas was in full swing.

Atrocities and Persecutions:

1666: Persia: Shah Abbas II was succeeded by his equally indulgent son Safi II. Due to his policies, the Safavid empire went into a steep decline.

1694: Persia: Safi II was succeeded after intervention by the court by the weakest of his sons, Sultan Hussain. Persecution of Sunni Muslims and minorities.

Colonial Voyages, Trade and Political Treaties:

1664: India: French East India Company (*La Compagnie française des Indes orientales*) was formed under Jean Baptiste Colbert during the reign of Louis XIV.

1674: India: Bombay: Trading post set up by the East India Company.

1694: Algeria: Compagnie d'Afrique formed. Obtained trade concessions and territories in North Africa.

	<p>1703-30: Turkey: During the reign of Sultan Ahmed III, the Tulip Period diplomatic and trade contacts with the Europeans were enlarged.</p> <p>Conquests and Colonizations:</p> <p>1661 and 1665: Algeria: French navy bombarded Algiers and Tunisia as a reprisal for piracy.</p> <p>1669: Algeria: Bombardment by the Dutch navy.</p> <p>1672: Algiers: British bombardment as reprisal for piracy.</p> <p>1682, 1683 and 1687: Bombardment by the French navy.</p> <p>Summary of bombardment of Algiers: As reprisals for the harassment of European ships and their capture by the rulers of North Africa (a.k.a. Barbary pirates), who later were allies of the Ottomans, the city of Algiers was by bombarded by the naval ships of Europe as well as the United States. This lasted for over three hundred years, from AD 1505 right up to AD 1830 when Algeria was finally colonized by the French.</p> <p>Spanish Navy: 1505-1529, 1541-1555, 1732</p> <p>English Navy: 1622, 1655, 1670, 1816, 1824</p> <p>Dutch Navy: 1669, 1670, 1816</p> <p>French Navy: 1682-83, 1687-88, 1827-30</p> <p>US Navy: 1812-1815</p> <p>1686: Calcutta, India: East India Company for the first time used force against Mughal sovereignty and set up the main trading post at Calcutta.</p> <p>1699: China: The Qing emperor Kangxi led an army across the Gobi desert and defeated the Muslim khan of Dzungaria. Over the next century, the Chinese extended their sway to the Pamir Mountains and brought the Muslim Uyghur under their control.</p> <p>Resistance to Colonization:</p> <p>1698: Portugal: Resistance by the local population forced Portugal to leave its colonies in East Africa.</p>
1711-1760	<p>Battles Won:</p> <p>1711: Turkey: Turks defeated Peter the Great on Pruth River and won back Azov. It was their last significant victory.</p> <p>1713: Turkey: Captured the crusading Swedish king Charles XII at Bender in Moldavia.</p> <p>1714-18: Turkey: Turkish offensive against Venice who lost fortresses of Peloponnesus and Crete.</p> <p>1739: Turkey: Achieved a (now) rare victory against the Austrians and occupied Belgrade.</p> <p>1757: India: Ahmad Shah Abdali invaded Delhi and inflicted major defeat on the Marathas.</p>

Battles Lost:

1716: Turkey: Intervention in Turkish lands by Austria.

1716-17: Turkey: Inspired by their victory over the Russians, the Turks attempted reinvasion of Hungary. Their one-hundred-thousand-strong army was mauled by Prince Eugene of Savoy at Peterwardein on the Danube. He also conquered Temesvar and Belgrade.

1718: Turkey: Second great defeat suffered by the Turks at the hands of the Hapsburgs. Lost northern Serbia and Walachia to Austria.

1722-23: Turkey: Russia under Peter the Great reached Caspian Sea. Captured Darband and Baku.

1723: Persia: Russia siding with Shah Tahmasp against the Turks claimed further Persian territories.

1736-39: Turkey: War against Russia and Austria.

1757-74: Turkey: Disastrous war with Russia during Mustafa III's rule. Real power resided with the minister Raghiv Pasa.

External Treaties:

1711: Turkey: Under the treaty of Pruth, Azov was returned by the Russians.

1718: Turkey: Peace of Passarowicz with Austria after being defeated.

1724: Persia: Treaty with Russian on the division of northwestern Persia.

1735: Persia-Russia: After a treaty alliance with Russia, Nadir Shah forced the Turks to hand over Caucasus, Georgia, Armenia, and Shirvan.

1739: Turkey: Under the Belgrade Treaty, Turkey regained northern Serbia along with Belgrade. Turkish supremacy recognized in the Black Sea. Azov was returned to Russia.

Rebellions, Civil Strifes, and Dynastic Wars:

1711: Afghanistan: Revolt against Safavids due to their attempts to impose Shia faith. Mir Wais, the Ghilzai chief, captured Kandahar.

1718: Turkey: Following the major defeats, Sultan Ahmed III attempted to upgrade his army but was resisted by the Janissaries.

1719: Afghanistan: Mir Mahmud, Mir Wais's son, reached as far as Kirman in Persia.

1722: Afghanistan: Mir Mahmud defeated a Persian army at Gulnabad and took Isfahan after a seven-month siege. He imprisoned Shah Hussain, murdered Safavid princes, but was unable to control the empire.

1723: Turkey-Persia: Turkey took over Tbilisi.

1724: Turkey-Persia: Turkey occupied Hamadan and Tabriz.

1725: Afghanistan: Mir Mahmud was assassinated by his nephew Ashraf who assumed the Persian throne. He lost Kandahar to Mir Mahmud's son.

1726: Persia: Ashraf murdered the imprisoned Shah Hussain.

- 1729: Persia-Afghanistan: Nadir Shah Afshar in service of Tahmasp II overthrew Ashraf and drove out the Afghans.
- 1730: Persia-Turkey: Nadir Shah pushed the Turks out of Hamadan and Tabriz.
- 1730: Turkey: Janissary rebellion forced Ahmad III to abdicate. Two-year dictatorship of Petrona Khalil.
- 1730-4: Turkey: Sultan Mahmud I assumed power. French Bonneval attempted to reorganize the army.
- 1730: Persia: Nadir Shah pacified northern and eastern Persia.
- 1732: Persia: Nadir Shah transferred his allegiance from Tahmasp II to his infant son Shah Abbas III.
- 1735: Persia-Turkey: Supported by the Russians, Nadir Shah inflicted defeat on the Turks at Bhagavand and took Tiflis.
- 1736-47: Persia: Nadir Shah convened an assembly at Mughan in Azerbaijan after the death of Shah Abbas III and assumed the crown. His attempt to replace Shiaism with Sunnism was resisted.
- 1738: Persia: Nadir Shah Afshar conquered Kandahar, Ghazni, and Kabul.
- 1738-39: Persia: Attacked India. Captured Peshawar and Lahore marches to Delhi. At Karnal, he defeated the main Mughal force. Delhi was sacked, and its citizens were massacred en masse. He plundered the famous object d'art, Peacock Throne. Hindu and Sikh rebel forces took advantage of the weakened Mughal authority.
- 1740-42: Persia: Conquest of Bokhara and Dagestan. Nadir transferred capital from Isfahan to Mashhad.
- 1743: Persia-Turkey: War with Turkey over recognition of Shia as an orthodox legal school.
- 1747: Persia: Nadir Shah Afshar was assassinated by his guards leading to collapse of the empire. His near-blind son Rukh Shah managed to hold on Mashhad. Other areas were held by Agha Mohammad Khan.
- 1747: Persia: Karim Khan Zand a fervent Shia established his capital at Shiraz and ruled Persia for twenty-five years.
- 1747: Afghanistan: Ghilzai rule crumbled, and Ahmad Shah Abdali was proclaimed king by the Loya Jirga. He adopted the name Durrani founding the Durrani dynasty. Expanded toward eastern Persia and India.
- 1754-57: Turkey: Unrest and intolerance during Sultan Osman III's rule.
- Betrayal:**
- 1735: Persia: Nadir Shah accepted Russian support against Turkey.
- 1757: India: Mir Jaafer, the defense chief of Siraj ud Daula's forces, betrayed the sultan and withdrew support at the last moment at the battle of Plessey against the British.
- Atrocities and Persecutions:**
- 1730: Turkey: The Albanian Janissary leader, Perona Halil, criticized the court for its un-Islamic practices. Sultan Ahmad III facing revolt had his vizier

Daman Ibrahim Pasa murdered. Dissatisfied Janissaries revolted anyway and overthrew the sultan, replacing him with the conservative Mahmud I. The new sultan lured Perona Halil and other leaders of the revolt to his palace, where they were strangled and decapitated. Their heads were paraded through the city.

1747: Persia: Nadir Shah Afshar with the complicity of his nephew Adil Shah was assassinated by Salah Bey, the captain of the guards (Nadir Shah still managed to kill two of his attackers).

1748: Persia: Adil Shah Afshar killed two sons of Nadir Shah. He ordered the killing of the leader of the Qajar tribe and the castration of his five-year-old son Mohammad, who later founded the Qajar dynasty.

1748: Persia: Ibrahim Shah Afshar ordered the blinding of his brother Adil Shah. Ibrahim Shah was later assassinated by his rebellious troops.

Colonial Voyages, Trade and Political Treaties:

1716: India: The British East India Company obtained tax-exempt status from the Mughals.

1719: India: The French East India Company started setting up trading posts in India.

(Pondicherry, 1674; Chandranagore, 1675; Trincomalli, 1675; Yanam, 1725; Mahe, 1725; and Karikul 1739. Under the able leadership of Joseph Dupleix, France gained lost of territory in south India. Due to the lack of support by Louis XV, and victories by the British in India, America, and Canada, the company dissolved in 1769, twenty years before the French Revolution).

1750: Persia: Trade contacts with Britain during Karim Shah Zand's rule.

1729: Turkey: Hired the French officer Comte Bonneval to modernize the army. He stayed until 1742 but was unable to change Ottoman tactical thinking with European approach due to resistance by the Janissaries.

Conquests and Colonizations:

1757: India: Plessey: Robert Clive inflicted a major defeat on much larger army of Siraj ud Daula in Bengal (depleted due to betrayal) opening the way for the British occupation of India.

1761-1810

Battles Won:

1772: India: Mughal emperor Shah Alam II appointed the capable minister Mirza Najaf Khan who reorganized the army into a fighting force that pushed the Marathas out of Delhi.

1779: India: Mughal forces decisively defeated the Sikh forces who suffered heavy loss of life.

1795: Persia: Agha Mohammad Qajars destroyed the Georgian army of Erkele II at Krtsanisi near Tbilisi.

1804-06: Turkey: First Serbian rebellion under Karadorde was suppressed.
 1807: Turkey: British naval intervention before Istanbul was repulsed by Turkey.
 1807: Egypt: British landing force was defeated before Alexandria.

Battles Lost:

1764: India: Mughal emperor Shah Alam II forces were defeated by Robert Clive of East India Company. He was betrayed by his minister Ali Gauhar. Shah Alam II was in virtual custody of the British.
 1772: India: Marathas occupied Delhi that was under the nominal rule of Shah Alam II.
 1778: India: Shah Alam forces were defeated by the Sikhs. This time he was betrayed by his commander in chief Abdul Ahad Khan who colluded with the Sikhs and removed fifteen thousand out of the twenty thousand well-trained army at the last moment.
 1766-74: Turkey: Hostilities resumed with Russia.
 1770: Turkey: Russian fleet destroyed Turkish navy at the battle of Cheshme (Chios).
 1774: Turkey: After crushing defeats by the Russians, Turks lost the Crimean peninsula on the Black Sea.
 1783: Turkey: Tsarina Catherine II subjugated Crimean Tartars.
 1787-92: Turkey: War with Russia went badly ending in treaties.
 1788: India: Mughal emperor Shah Alam II and his allies were defeated by the warlord Ghulam Qadir Rohilla and their Sikh allies. Atrocities were committed in which the emperor was blinded, but his life was spared. Delhi was looted of its treasures.
 1799: India: Tipu Sultan of Mysore, allied to the French, was defeated and killed by the British forces at Seringapatam. His defeat was facilitated by the betrayal by his minister Mir Sadiq as well as by the nizam of Hyderabad.
 1804-13: Persia: War with Russians in the Caucasus.
 1806-12: Turkey: Ottoman-Russian war.

External Treaties:

1761: Turkey: Treaty of Friendship with Prussia.
 1774: Turkey: Under the treaty of Kuchak Kaynarji with Russia, the Ottomans relinquished control over the Crimean Tartars. The sultan will provide spiritual leadership of the Crimean Muslims under Russian rule while Tsarina Catherine II retained protection rights over the Orthodox under Turkish rule. Turkey lost its position in the Levantine trade.
 1784: Turkey: Under the treaty of Aynali Kavak, Turkey, unable to protect Muslims, ceded Crimea to Russia. The claim of the sultan's spiritual leadership over Muslims in Russia became untenable.
 1788: Turkey: Treaty between Austria and Russia against Turkey.

1791-92: Turkey: Under the treaties of Sistowa and Jassy, Turkey lost the northern Black Sea coast to the mouth of Dniester and Crimea to Russia.

1801: Turkey: Ottoman alliance with the British and the Russians.

1812: Turkey: Treaty of Bucharest ended Ottoman-Russia war.

Rebellions, Civil Strifes, and Dynastic Wars:

1761: India-Afghanistan: Ahmad Shah Abdali defeated a combined Maratha-Mughal army at the second battle of Panipat. He briefly occupied Delhi but withdrew after mutiny by his troops.

1772: Afghanistan: Ahmad Shah Durrani's successor Taimur Shah moved the capital from Kandahar to Kabul.

1776: Persia: Karim Khan Zand annexed Basra in Iraq.

1779: Persia: Agha Mohammad, the Qajar leader, seized northern area and established the capital, Tehran, in 1785.

1789-1807: Turkey: Revolt of Janissaries against military reforms resulted in the deposition of Selim III.

1794-97: Persia: The Qajar leader Agha Mohammad defeated the Zand of Shiraz (1794) and crowned himself shah, 1796-1818. The dynasty would last until 1924.

1801: Iraq-Arabia: Wahhabis attacked and plundered Karbala.

1803-06: Arabia: Wahhabis under Saud ibn Abdul Aziz conquered Medina (1804) and Mecca (1806). They now controlled large parts of Arabia until their suppression by Egypt, 1812-18. **In 1805, his father, Abdullah ibn Saud, barred Muslims that did not subscribe to the Wahhabi doctrine from making hajj (pilgrimage).**

1805-48: Egypt: To reassert control, Turkey dispatched a mainly Albanian force. After its leader was assassinated, his second in command, Mohammad Ali, with the help of the Ulema, seized control. He was recognized as governor, Pasa, by the sultan. He introduced land, army, and tax reforms. Over time, he would become the dominant leader of the Muslim world.

1807: Turkey: News of takeover of Mecca by the Abdullah ibn Saud Mustafa IV provided an excuse to Janissaries to revolt against Selim III and kill many soldiers of the new style army. Under their leader, Kabakji Mustafa, they stormed the palace. Sultan Selim III was deposed and replaced by his cousin Mustafa IV.

1808: Turkey: The leader of the new style army, Bayrakdar Mustafa Pasa, discontinued his campaign against Bulgaria and returned to Istanbul. He executed all the rebels involved in the deposition of Selim III.

1808-39: Turkey: Sultan Mahmud II introduced reforms in army and administration along western lines. Disbanded the Janissary corps in 1826.

Betrayals:

1764: India: Mughal emperor Shah Alam II forces were defeated by Robert Clive of East India Company. He was betrayed by his minister Ali Gauhar.

1778: India: Shah Alam II's forces were defeated by the Sikhs due to the betrayal by his commander in chief Abdul Ahad Khan who colluded with the Sikhs and removed fifteen thousand out of the twenty thousand well-trained army at the last moment.

Repressions:

1783: Russia: Catherine II ordered expulsion of Muslims from Crimea. (Isabella of Spain did the same in 1502).

1809: Egypt: Mohammad Ali decreed that the Ulema who helped him gain power were no longer tax-exempt.

Atrocities:

1788: India: Mughal emperor Shah Alam II (1728-1806) ascended the throne in 1761. His reign was marked by defeats and betrayals. The warlord Ghulam Qadir Rohilla arrested the emperor and had him blinded.

1788: India: The perpetrator Ghulam Qadir Rohilla was chased by the Marathas, now allied with the emperor. He was killed and his body mutilated.

1794: Persia: Agha Mohammad Khan tortured and murdered the last of Zandid ruler, Lutf Ali Khan.

1796: Persia: Agha Mohammad Khan tortured and killed Shahrukh Shah Afshar on the presumption that he knew where Nadir Shah had stashed his treasures.

1797: Persia: Agha Mohammad Khan Qajar was assassinated by his own officers.

1807: Arabia: Abdullah ibn Saud entered Mecca where his Wahhabi followers created a reign of terror and looting. Shrines and tombs were desecrated.

1808: Turkey: In July, Sultan Mustafa IV ignored the demands by the new style army to restore Selim III and got him executed instead. Thereupon, Mustafa IV was himself deposed and replaced by the only surviving male, Mahmud II.

1808: Turkey: Under Mahmud II, the new trained army was renamed Seghans (master of the hounds). Janissaries staged a second revolt in November and assassinated its leader, Mustafa Bayrakdar. Mahmud II ordered the execution of Mustafa IV and the disbanding of Seghans.

1808: Turkey: The Janissaries immediately began butchering the Seghans.

Internal Treaties and Positive Events:

1789: Turkey: To stem the deteriorating condition of the military, Sultan Selim III called in the Majlis (parliament). The Janissaries continued to resist reform including the use of socket bayonet. The sultan created the secret force "Trained Soldiers of Allah" trained by Russian and German officers.

1802: Egypt-Turkey: Under the Treaty of Amiens, Egypt returned to the Ottomans.

1794: Turkey: Sultan Selim III unveiled the new army to the dismay of Janissaries. He ordered the construction of modern arsenal, gunpowder, and weapons factory.

1806: Turkey: Sultan Selim III's new style army grew to twenty-two thousand men, but indiscipline had crept in, aping the lifestyle of the Janissaries.

Colonial Voyages, Trade and Political Treaties:

1784: India Act: English Parliament made East India Company, now controlling a large part of the Mughal Empire, directly answerable to it.

1786: Penang, Malaya: East India Company set up a trading post.

1793: India: East India Company fixed land tax in Bengal. It severely affected the prestige and wealth of the Muslim landlords.

1795: Indonesia: Under new alliances in Europe due the Napoleonic Wars, Dutch colonies in Malacca were handed over to Britain.

1797-1834: Persia: Under Fatah Ali Shah, Persia became focus of Anglo-Russian rivalry.

1799: Persia: Fatah Ali, the Qajar shah, signed a pact with Britain agreeing to become an ally in return for arms and technical advice.

1800: Persia-Afghanistan-India: Treaty of the East India Company's Sir John Malcolm with Fatah Ali Shah against Afghanistan and France.

1807: Persia: Treaty of Finkenstein with France against Britain and Russia. French general Gardane built up army in Persia.

Conquests and Colonizations:

1760-61: *India: The French suffered major defeats at the hands of the British in India—at Wandiwash where Sir Eyre Coote defeated Count de Lally and at Pondicherry. The French forces were handicapped due to the lack of timely support by Louis XV whose attention was diverted due to the (1) war with the Hapsburgs of Austria and (2) siege and fall of Quebec and Canada and (3) his preoccupation with the construction of the luxurious Palais de Versailles.*

1764: Baxur, India: Major Hector Munro inflicted defeat on a coalition of Muslim forces.

1793: Bengal: East India Company was powerful enough to dictate the rate of the land tax recoverable from the Muslim landowners.

1798: Egypt: To counter British power, Napoleon sailed from Toulon with thirty-eight thousand men and four hundred ships. He captured Alexandria on July 1 and defeated the Egyptian army near Cairo on July 21. On August 1, under the command of Horatio Nelson, the British navy destroyed the French fleet at Abukir Bay. Napoleon's geostrategic policy was in ruins.

1799: Turkey: His fleet destroyed by the British, Napoleon led an overland expedition into Palestine and Syria but suffered a defeat at the hands of Janissaries at Acre. Napoleon returned to Cairo and secretly left for France.

1801: Egypt: The French evacuated after the landing of the British army. The Mamluk elite refused to accept the new Ottoman governor.

	<p>1805: India: Mughal emperor Shah Alam II, who had been blinded by his local adversaries, was stripped of his powers by the British and pensioned off.</p> <p>1803-1819: India: British overcame the resistance by the Marathas.</p> <p>Resistance to Colonization:</p> <p>1781: China: A separatist uprising of Muslims in the Gansu province was quashed by the Qing emperor Qianlong.</p> <p>1788-1840: Lebanon: Bashar Shihab fought against the French for autonomy.</p> <p>1799: India: Sultan Hyder Ali and his son Tipu Sultan of Mysore launched a movement to expel British from south India. They sought French assistance in arms and training and gave a good account of themselves before their defeat that was facilitated by conspiracy and betrayal by their allies.</p> <p>1799-1801: Egypt-Turkey: Ottoman forces under the Albanian Mohammad Ali pushed the French out.</p> <p>1801-05: Egypt: Power struggle between the Ottomans, the Mamluks, and the Albanian Mohammad Ali after the departure of the French.</p>
1811-1860	<p>Battles Won:</p> <p>1821-29: Turkey: Greek war for independence. Pro-Greek movement in Europe. Mohammad Ali of Egypt helped Turkey capture Crete.</p> <p>1826: Turkey-Egypt: The Greek fortress of Missolonghi fell to Egyptian troops under Ibrahim Pasa.</p> <p>1854-56: Turkey-Britain-France: In the Crimean War against Russia, the alliance (mainly British and French forces) won victories at the battles of Balaclava and Inkerman. Russian naval facilities at Sebastopol were bombarded and knocked out. A total of two hundred fifty thousand lives were lost.</p> <p>Battles Lost:</p> <p>1812: Persia: Russians under Pyotr Kotlyarevsky defeated a ten-time numerous Persian army under Abbas Mirza.</p> <p>1815-17: Turkey: Serbian rebellion led by Milos Obrenovic against Turkey. Distinct position of Belgrade was recognized.</p> <p>1827: Turkey: Capitulation by Turkey of the Acropolis in Athens.</p> <p>1827: Turkey: Just as the Greek war of independence was doomed to failure, British navy with French and Russian navies backing, with their superior guns, destroyed three-fourths of the Egypt-Turkish navy in Navarino. It was the last battle of the wooden ships. Ibrahim Pasa's supply lines were severed.</p> <p>1829: Turkey: Russia captured Adrianople.</p> <p>1853: Turkey: Russia occupied Romania, an Ottoman territory.</p> <p>1853: Britain: Sent a fleet to Istanbul to protect Turkey. Turkey declared war against Russia, which marked the beginning of the Crimean War.</p>

External Treaties:

1812: Turkey: Ottoman-Russian pact of Bucharest.

1813: Persia: Under a treaty, Dagestan and Chechnya were ceded to Russia.

1814: Turkey: Following fresh hostilities, the Turks ceded territories in Caucasus to the Russians under the Treaty of Gulistan.

1824: Britain-Holland: Under a bilateral treaty, Malaysia came under the British sphere of influence while Indonesia went under Dutch.

1829: Turkey: London protocol targeted the independence of Greece.

1829: Turkey: Under the Treaty of Adrianople, Russia gave up its conquests in European Turkey.

1832: Turkey: The triple alliance of Britain, France, and Russia guaranteed Greece's independence.

1833: Turkey: Treaty of Hunkar Isklesi with Russia.

1853: Turkey: In a meeting with the British envoy, Turkey was labelled by Tsar Nicholas I as the "sick man" of Europe.

1854: Turkey-Britain: Anglo-Turkish alliance against Russia at the start of the Crimean War. France joined the alliance.

1856: Crimean War ended. Treaty of Paris upheld the independence of Turkey.

1859: Turkey: Sultan was forced to recognize the union of Moldavia and Walachia.

Rebellions, Civil Strifes, and Dynastic Wars:

1811: Egypt-Turkey: Mohammad Ali of Egypt destroyed the Mamluk officer corps. Mamluk leaders assassinated. Reorganization of the army and government on the French model. Confiscation of Waqf properties in 1816.

1813: Egypt-Arabia: Mohammad Ali's sons destroyed Wahhabi power of al-Saud in Arabia. The keys of Mecca were sent to Istanbul, and his name was once again recited in the Friday Khutba.

1818: Egypt-Arabia: Saud's stronghold, Darriyah, was taken and Abdullah ibn Saud captured and sent to Istanbul to be executed.

1820-23: Sudan: Mohammad Ali's son Ismail conquered eastern Sudan. Sudan was an important source for the burgeoning trade in female black slaves. Founding of Khartoum, 1823.

1831: Turkey: Sultan Mahmud II reconquered Baghdad from Mamluks.

1831: Egypt: Ibrahim Pasa conquered Syria.

1832: Persia: Prince Abbas conquered Khurasan.

1832: Egypt-Turkey: Mohammad Ali demanded the governorship of Syria from Mahmud II and was refused. He dispatched his son Ibrahim who routed the new Turkish army and captured Konya. Instead of continuing onward toward Istanbul, Ibrahim was ordered back by his father.

1832: Turkey: Russia intervened on behalf of Turkey while Britain and France made countermoves.

1837-38: Egypt: Mohammad Ali extended rule in Arabia to the Gulf and in Sudan.

1839: Turkey-Egypt: The Turkish navy, dissatisfied with the sultan, its main fleet sailed to Alexandria and defected to Mohammad Ali of Egypt.

1839: Egypt-Turkey: Turkey invaded Syria but was defeated at Nasibin.

1834-48: Persia: Military campaign to Afghanistan failed due to British pressure. The siege of Herat was lifted in 1837.

1841: Egypt-Turkey: Mohammad Ali made hereditary viceroy of the sultan.

1848-51: Egypt: Abbas Hilmi was the new viceroy. Unrest due to the modernization efforts.

1849: Arabia: The Wahhabis under Faisal al-Saud pushed the Egyptian governor out.

Betrayals and Conspiracies:

1857: Delhi: End of Mughal empire precipitated by ill planned campaign as well as betrayals by notable royals and personalities of the Mughal court, (Refs: DW, NKH).

Repressions:

1844-50: Persia: Unrest due to the sectarian movement (later Baha'i) of Babb Sayyid Ali Mohammad. Executed in 1850.

1852: Persia: Following an attack on Nasir al-Din Shah by the Babis, there was mass persecution.

Atrocities:

1811: Egypt: To create a new army, Mohammad Ali decided to purge the old Mamluk officers. He invited them for a banquet in Cairo where four hundred eighty officers were massacred. One thousand others were also murdered.

1813: Egypt-Arabia: Mohammad Ali's son Ibrahim, at the head of a reformed army, captured Mecca and Medina from Abdullah ibn Saud slaughtering many Wahhabi ghazis in the process.

1818: Egypt-Arabia: Ibrahim Pasa lay siege to the Wahhabi stronghold at Darriyah. Captured Abdullah ibn Saud. He was sent to Istanbul and declared a heretic (Zindiq). He was executed, and his head was placed on the marble columns outside the palace.

1823: Turkey: Christian population of Greece revolted. In Morea, fifteen thousand Muslims were massacred, and the rest were forced to flee.

1825: Turkey-Greece: Helped by Egyptian troops, Turkey attacked Greek rebels. The captured Greek patriarch was hanged from the gates of his palace on Easter Sunday.

1826: Turkey: Under Sultan Mahmud II's orders, revolting Janissaries were cut down and prisoners were strangled or beheaded by the Eskenji troops. The Bektashi sect associated with the Janissaries was abolished.

1827: China: The leader of the Muslim rebellion in Gansu province was captured and sent to Peking where he was brutally executed.

1854: Egypt: Abbas Hilmi I was assassinated and was succeeded by his uncle Mohammad Said Pasha.

1857: India: British forces supplemented by local soldiers sacked Delhi and engaged in large-scale pillage and carnage. The British were angered by the audacity of the locals to rise in mutiny against the foremost world power that had recently defeated Napoleon and other European powers. Encouraged by the press, brutal acts of revenge received official sanction. Surprisingly, the hierarchy of the Anglican church also condoned such acts of retribution.

The last Mughal emperor, Bahadur Shah Zafar, was dethroned; and two of his sons—Mirza Mughal and Khizar Sultan—and his twenty-year-old grandson, Abu Bakr, were brutally executed by Major Hodson (he later wrote that he enjoyed that ordeal). Twenty-six other princes and members of the royal household were condemned and put to death. Common mutineers were blown up tied in front of field guns.

There was whole-scale destruction of the city's finest mosques, monuments, libraries and their priceless manuscripts, precious artwork, royal palaces, bazaars, and mohallas (neighborhoods). Delhi, a flourishing cultural, artistic, and commercial metropolis, ceased to be a viable city. In addition to atrocities against women, human loss of life ran into hundreds of thousands. Millions were displaced (Ref: DW).

1860: Lebanon-Syria: Druze (Ismaili) landlords massacred thousands of Maronite (Catholic) farmers of Mount Lebanon. This led to a civil war.

Internal Treaties and Positive Events:

1826: Turkey: Success in Greece emboldened Sultan Mahmud II to disband Janissary forces. Fitter men were enlisted as Eskenjis "new soldiers."

1833: Egypt-Turkey: Under the treaty of Kutahya, Turkey conceded Syria and Adana to Egypt.

1839: Turkey: Mahmud II was succeeded by his sixteen-year-old son, Abdul Mejid. He started a reform program, Tanzimat, through Gulhane's decree called Khat-i-Sherif.

1840: Turkey: Under pressure from the British, Sultan Abdul Mejid ordered the closure of slave market of Istanbul.

1850: Turkey: Sultan Abdul Mejid introduced reforms in the justice system (secular courts) and in commerce.

1857: Turkey: Feeling obliged after the Crimean War, Sultan Mejid issued a decree, Khat-i-Humanyun (Proclamation of Humanyun), granting equal rights to all religious minorities.

Colonial Voyages, Trade and Political Treaties:

1814: Persia: Agreement with British enhanced their influence.

1820: Gulf States: The sheikhdoms entered into a treaty of protection under the British.

1835: Language Change, India: On the recommendation of Lord Macaulay, English replaced Persian as the official language for government and education.

1838: Turkey: The treaty of Jalta-Liman gave preferential duty to English products.

1840: Egypt-Turkey: To prevent Egypt from becoming a major power that would threaten Anglo-French interests, Britain and France successfully exerted pressure on Mohammad Ali to return control of the newly won territories in Palestine, Syria, and Albania back to Turkey.

1840: Egypt: Forced to accept the treaty of Jalta-Liman and remove protective custom duties.

1846: Ottoman Empire: British pressurized Sultan Abdul Mejid to close Istanbul's slave market.

1847: Persia: British-born Baron de Reuter won trade concessions for exclusive rights for railways and tramways, banks, and mineral exploration. Although these concessions were cancelled following an uprising by the traders and the mullahs, Britain still managed to get foothold in the Persian economy.

1854: Egypt: Ferdinand de Lesseps was granted concession by Mohammad Said Pasha to build the Suez Canal. He offered Ferdinand de Lesseps loan guarantees as well as conscripted Egyptian labor.

1854-63: Egypt: First European loan was granted to Egypt under Said Pasha. The money was used to develop Cairo as a modern city and the railway system. The country's economy deteriorated under the influence of Western financiers.

Conquests and Colonizations:

1813: Persia: Under the Treaty of Gulistan, Persia relinquished control of Dagestan, Georgia, Darband, and Shirvan to Russia.

1819: Malaysia: Singapore island populated by Muslims was annexed as a Crown colony by the British.

1824: Malaya-Indonesia: As a result of a bilateral treaty, Indonesia went under Dutch and Malaya under British sovereignty.

1828: Persia: Russia invaded Persia and gained an upper hand. Under the Treaty of Turkmanchai, Russia got all lands north of the Caspian Sea.

1830: Algeria: France occupied Muslim Algeria.

1838-42: Afghanistan: First of the three Afghan wars was sparked by the British. It ended in their disastrous defeat with the decimation of the entire army in the snowbound mountain passes.

1839: Aden: An act of piracy provided the British navy with a pretext to attack and annex the strategic port of Aden. It would also serve as a base to safeguard

British interests in the Red Sea against Egyptian advances in Arabia as well as to protect its trading routes to India.

1839-42: Afghanistan: British army from India occupied Kabul and Kandahar to prevent Russian expansion.

1840: Egypt: Egyptian fleet defeated by the British. European powers helped Turkey to regain Syria.

1840: Ottoman Empire: Britain and France preferring a weakened Ottoman Empire over a stronger one ruled by Mohammad Ali of Egypt exerted pressure for the return of Palestine, Syria, and Albania to the Ottomans.

1849: India: After a series of bloody battles, the British gained upper hand and defeated the better-equipped Sikh armies trained and drilled by noted European general Ventura. This was mainly due to betrayal and internal conspiracies. Punjab was annexed, and the young son of Ranjeet Singh was put on the throne.

1854: Crimean War: France joined Britain in the Crimean War against Russia. This was caused by the rivalry over the best way to protect Christian minorities in Turkish lands. Ended with the Treaty of Paris, 1856.

1856-57: Persia: After the capture of Herat, Britain declared war against Persia.

1857: Persia: Under the Treaty of Paris, Persia had to leave Afghanistan, which was to become a buffer state.

1858: India: The Mughal emperor Bahadur Shah Zafar was disgraced, tried for rebellion and exiled to Burma. Mughal dynasty was dissolved, and India was declared a Crown colony.

1860: Morocco: Defeated by Spain.

1860: Lebanon: After brutalities between the Maronite and the Druze, Lebanon became a French protectorate.

1860: India: Sir Syed Ahmad through his book *The Loyal Mohammedans of India* attempted to persuade the British to look more favorably on India's Muslims.

Resistance to Colonization:

1817: China: Jahangir, the charismatic leader claiming descent from the Prophet declared jihad against the Qing dynasty to recover Kashghar in the Tarim basin.

1831: India: Syed Ahmad Barelvi raised the banner of jihad against the Sikh rulers of Punjab. After inflicting several defeats on the Sikhs and capturing Peshawar and Mardan, he was betrayed, trapped, and killed at Balakot, Pakistan.

1831: India: Shah Ismail Shaheed, the grandson of Shah Waliullah, died while fighting against the Sikhs at Balakot. He was the author of *Taqwiyat-ul-Iman* (Strengthening the Faith).

1832-47: Algeria: Abdul Qadir led revolt against France. Defeated the French at Macta, 1835.

1834: Russia: Imam Shamil of Caucasus began a twenty-five-year guerrilla war against the Russians in Dagestan and Chechnya.

1834-48: Persia: Mohammad Shah's rule (1834-48). Departure of the British military mission.

1841: Lebanon: Druze revolted against the French.

1842: Afghanistan: Revolt by Emir Dost Mohammad pushed British out.

1847: Algeria: Rebellion of Abdul Qadir quelled. Taken captive and exiled. Died in 1883.

1855: China: Muslims in Yunnan began insurrection due to punitive taxation and deprivation of mining rights that lasted until 1873 when it was brutally suppressed.

1855: Arabia: In reaction to British pressure related to the abolition of slavery, Sheikh Mohammad Jamal issued a fatwa declaring that any ban would be against the Islamic law.

1857: Indian Mutiny (War of Independence):

Both the Hindu and the Muslim rulers and the population of India were deeply concerned at the successive successes of the British, against Siraj ud Daula in Bengal (1757), the states allied to the French in south India (1761), Hyder Ali and Tipu Sultan in Bengal (1799), 1803-19; the Marathas in west and northern India (1803-19), the Afghans (1838), the Sikhs in Punjab (1849) and Wajid Ali Shah in Oudh (1856). This and other repressions by the British gave rise to a joint Hindu-Muslim mutiny in 1857, also known as the War of Independence. This movement was brutally crushed by the British firepower, organization, and their divide-and-rule policy. Mughal rule in India ended after 331 years. Bahadur Shah Zafar at the age of eighty-two was dethroned and exiled to Rangoon where he was denied basic facilities, including pen and paper. He died in 1862.

1858: India: The revolt collapsed as East India Company forces captured Gwalior fort. The British apportioned all blame on the Muslims although Hindus had participated in equal numbers, (Ref: DW).

There were many reasons for the failure of the first war of independence:

Weak and incompetent leadership: Bahadur Shah Zafar, an octogenarian whose rule confined within the walls of the Delhi's Red Fort, was in no position to offer a meaningful leadership.

Multiplicity of command: The Muslim and Hindu rebel forces were diverse without a unified command. Later the command was shared between Prince Mirza Mughal and General Bakht Khan of Bareilly who had active experience in artillery.

Some experienced English soldiers had converted to Islam and were fighting along with the rebel forces. Most notable of these was Sergeant Gordon who

with his accurate field gunfire impeded the advance of the British and fought until the end. There were other converts with different expertise including the family of Felix Rotton and John Roberts, the son of the British general Sir Abraham Roberts. The command was unaware of the benefits that could be derived by utilizing the services and advice of these people.

Betrayal and conspiracy: The Mughal court was rife with people who betrayed the cause of the Indians for the sake of British favors. These included

Queen Zeenat Mahal who wanted to push the candidacy of her own eleven-year-old son, Jawan Bakht, in place of all others.

Hakim Ahsan Ullah Khan, the personal physician of the emperor.

Mirza Ilahi Bakhsh, the Anglophile cousin of the emperor. He was also the father-in-law of the deceased prince Mirza Fakhru, the talented heir apparent of the emperor (who died prematurely) presumably due to poisoning. Mirza Ilahi Bakhsh was the grandfather of Prince Abu Bakr and was instrumental in his surrender to Major Hodson.

Maulvi Rajab Ali acted as the carrier of information to Major Hodson. He had served as an assistant to General Lawrence.

Others including Major Gauri Shankar and Mir Munshi Jiwan Lal who acted as the main coordinator.

Lack of intelligence network: The rebel armies were constrained by the lack of similar spy network. Many times during the skirmishes, the British forces were surrounded and overwhelmed, but the native generals could not force the advantage they had in terms of numbers and firepower.

Lack of supply lines: The city was overflowing with eager soldiers from all over northern India. It could not meet the demands of food, shelter, and ammunition without being resupplied from outside. The drawback of logistics was duly exploited by the British based on the intelligence they were receiving.

1859: Chechnya and Dagestan: The twenty-five-year insurgency led by Imam Shamil against Russia ended with the surrender of his fort at Vedeno in the Caucasus. Imam Shamil's bravery won admiration not only in the Muslim world but also in Europe. He was allowed to go into exile where in 1871 he died.

1861-1910	<p>Battles Won:</p> <p>1866-68: Turkey: Rebellion in Crete suppressed by the Turks.</p> <p>1879-80: Afghanistan: Second Afghan war began. Britain failed to impose direct rule but supported the Durrani king Abdul Rahman who promoted Pashtun people at the expense of Uzbeks, Tajiks, and Hazaras.</p> <p>1882: Sudan: Military success by the first Mahdi Ahmad bin Abdullah. He defeated Ubayd and controlled eastern Sudan after the destruction of Anglo-Egyptian forces.</p> <p>1885: Sudan: Mahdi's forces captured Khartoum. General Gordon was killed. Sudan was declared an Islamic state. Mahdi's successor Abdullah Abu Bakr's forces moved toward Abyssinia.</p> <p>1888: Sudan: Mahdi's forces captured Gondar in Abyssinia.</p> <p>1889: Sudan: Mahdi's forces defeated Abyssinians at Galabat. King John fell.</p> <p>1896-97: Turkey: War with Greece over Crete. Despite success, Turkey was pressured by Europe to a treaty. Crete obtained autonomy in 1898 and union with Greece in 1908.</p> <p>Battles Lost:</p> <p>1862: Turkey: Emergence of Rumania after the defeat of Turkish forces.</p> <p>1867: Turkey: Vacated fortresses in Serbia.</p> <p>1875-76: Turkey: Rebellions against Turkish rule in Bosnia and Bulgaria. Communal killing. Full-scale war by Serbia.</p> <p>1877-78: Turkey: Russo-Turkish war. Russians captured Edirne. Obtained territories in eastern Anatolia and Transcaucasia.</p> <p>1878: Turkey: Relinquished control of Cyprus to Britain in return for future help against the Russians.</p> <p>1885-88: Turkey: Rebellion against the Turks in Rumeli demanding union with Bulgaria.</p> <p>1890-97: Turkey: Armenian independence movement.</p> <p>1894: Turkey: Suppression of Armenian revolt by Turkey aroused ire of Europe.</p> <p>1896-98: Turkey: Revolt erupted in Crete, and Turkish rule ended.</p> <p>1898: Sudan: The Mahdist forces were decimated by Lord Kitchener's army outside Omdurman.</p> <p>1905: Turkey: Massacre of Armenians by Turkish forces.</p> <p>1908: Turkey: Bulgaria declared independence.</p> <p>1908: Turkey: Austria annexed Bosnia-Herzegovina.</p> <p>1908: Indonesia: After a long war, the Dutch overcame resistance in Aceh.</p> <p>External Treaties:</p> <p>1877-78: Turkey: Under Treaty of San Stefano, Serbia, Bulgaria, and Rumania become de jure independent. Russian gained territories in eastern Anatolia and Transcaucasia.</p>
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1878: Turkey: The Congress of Berlin endorsed Austro-Hungarian rule in the Balkans. Political influence of Muslim Slavs was dramatically diminished while that of Catholic Croats was enhanced.

1893: Afghanistan: Durand Line agreement between Emir Abdul Rahman and the British settled the border with India. The border was unnatural as it divided Pashtuns on both sides.

1897: Israel: The World Zionist Congress convened in Basel and committed to the creation of the Jewish state in Ottoman-governed Palestine.

1904: Egypt-Morocco: Britain and France agreed to respect each other's sphere of influence.

Rebellions, Civil Strifes, and Dynastic Wars:

1876: Turkey: Coup by the minister Midhat Pasa led to deposition and murder of Sultan Abdul Aziz. The new sultan Murad V deposed shortly after taking office.

1876: Sultan Abdul Hamid (1876-1909) took over. Annulled the reforms and the constitution introduced by Midhat Pasa, who was dismissed, exiled, and in 1883 was executed.

1891: Arabia: The ruling Saudis were driven out of their capital Riyadh by al-Rashid clan of Hail.

1896: Persia: Nasir al-Din Shah assassinated by a supporter of Jamal ud din Afghani.

1901: Arabia: Abdul Aziz ibn Saud with a surprise attack recaptured Riyadh from al-Rashid of Hail. Encouraged by this success and in the absence of a strong Turkish presence, he began more forays.

1908: Turkey: Rebellion by Young Turks who gained majority in the new parliament. Ziya Gokkap formulated nationalism ideas.

1908: Persia: Shah Mohammad Ali dissolved the Majlis and executed the nationalist leaders with the help of the Cossack brigade.

1908-09: Persia: Civil war. Russians occupied Tabriz. Revolutionaries occupied Isfahan, Gilan, and marched toward Tehran. Shah fled to Russia. Returned as a constitutional ruler (1909-25).

1909: Turkey: Sultan Abdul Hamid deposed by the Young Turks. Mehmed V (1909-18) was the figurehead "constitutional" sultan.

Repressions:

1873: Turkey: Attempt to suppress a revolt in Bulgaria was marred by a massacre of Christians that affected Turkey's reputation in the West.

1875: Turkey: Intercommunal tensions in Bulgaria and Bosnia-Herzegovina worsened leading to bloodshed.

1878-1908: Turkey: Sultan Abdul Hamid suspended parliament. He introduced reforms in education and transportation but suppressed dissents harshly.

1882: Israel: Because of wide-scale suppression in Russia, significant numbers of Jews began to migrate to Palestine giving rise to the concept of a separate Jewish homeland on Arab lands.

Atrocities:

1857-60: India: As an aftermath of the native uprising against British occupation in which many British people were massacred, the British unleashed a regime of disproportionate brutal reprisals. The last Mughal emperor was arrested, tried, and exiled. Many of the royal princes were summarily executed and their severed heads presented before the emperor. The male civilian population was massacred in Delhi and other cities. Mutineers were tied to field guns and blown up (Ref: DW).

1871: China: Muslim rebellion in Gansu collapsed after its leader Ma Hualong was sliced to death in public.

1873: China: Muslim rebellion in Yunnan province collapsed with the execution of Du Wenxiu.

1895: Turkey: Began repression against the Armenian revolt. Up to twenty thousand were killed.

Internal Treaties and Positive Events:

1867: Egypt-Turkey: Ismail Pasha of Egypt was not satisfied with his present title. In return for an annual tribute of three hundred fifty thousand pounds to the sultan Abdul Aziz of Turkey, he had it upgraded to khedive, a great prince.

Colonial Voyages, Trade and Political Treaties:

1861: Turkey: Abdul Mejid was succeeded by Sultan Abdul Aziz. He raised unmanageable loans from European governments and banks.

1863: Egypt: Modernization of Cairo was started. Influence of Western financiers increased.

1864: Egypt: Suez Canal construction started. Egypt slid toward bankruptcy.

1864: Persia: Britain obtained contracts for a telegraph system.

1867: Turkey: Sultan Abdul Aziz was the first Muslim head of state to visit Paris, London, and Brussels. Ordered modern warships for his navy.

1869: Egypt: Suez Canal opened for shipping traffic, but Egypt received little revenue from the Anglo-French Suez Canal company.

1872: Persia: The English Baron Julius de Reuter obtained major concessions from the minister Mirza Hussain Khan. Annulled in 1873 by Nasir al-Din Shah.

1874: Turkey: Following financial collapse, a credit is sought from a consortium of European states.

1875: Egypt: Due to international monetary turmoil and the bankruptcy of the Suez Canal company, the khedive Mohammad Ismail was forced to sell to Britain a lease on the canal.

1875: Turkey: Due to its insolvent economy, Turkey defaulted on loan repayment, and it was forced to accept unfavorable terms dictated by the European bankers.

1878: Persia: Cossack unit formed in Parisian army commanded by Russians.

1881: Turkey: Sultan Abdul Hamid II set up a commission to manage revenues with the active participation of the creditor powers, Britain, France, Germany, and others.

1889: Persia: To the detriment of Persian producers, Nasir ud din Shah granted tobacco monopoly to a British company that led to unrest.

1896: Persia: The weak shah Muzaffar ud din granted more concessions to the British and the Russians.

1899: Kuwait: Britain recognized Kuwait as a protectorate. Sheikh Mubarak, the ruler, feared military consequences of Turkish extension of its railway system.

1901: Persia: Oil was discovered. British William D'Arcy concluded a sixty-year agreement with the shah. This caused a scramble by other Western powers to gain a foothold in the oil-rich Middle East.

1909: Persia: Anglo-Persian Oil Company formed at the expense of Russian interests.

Conquests and Colonizations:

1861: Bahrain: Became a British protectorate.

1861: Lebanon: Military intervention by France siding with the Maronite Christians against Muslims.

1879: Egypt: Under Anglo-French pressure, the ruler Ismail was deposed. Replaced by his son Tewfik.

1881: Tunisia was annexed by France.

1882: Egypt: Ahmad Arabi forces challenged by the British. He was defeated at the battle of Tel al-Kebir and was removed. The khedive Tewfik accepted British overlordship, and Egypt became its protectorate.

1882: Sudan: After this success, Britain started to use Egypt as a springboard for combating the Mahdi.

1883: Egypt: Britain consolidated its occupation by appointing Lord Cromer as consul general. He remained until 1907.

1891: Muscat and Oman: Came under British rule.

1896: Malaya: Federation of Malay states effectively became a British colony.

1898: Sudan: Mahdist army was crushed by Lord Kitchener at Omdurman.

1899: Kuwait: The ruler Sheikh Mubarak accepted British overlordship fearing rising Turkish influence once their railway system in Iraq and Arabia extended to Kuwait. Kuwait was recognized as a state under British protection.

1901: Morocco: Became a French protectorate after Alawi dynasty sought help.

1902: Arabia: Helped by British arms, Ibn Saud was recognized as the sultan of Najd.

1905: India: The province of Bengal was partitioned between the Muslim and Hindu majority parts.

1907: Persia: Intervention by Britain and Russia to restore Shah Mohammad Ali. Decided to divide the country based on the distribution of the known oil fields.
 1908: Indonesia: The Dutch annexed Muslim state of Aceh leading to the annexation of the whole of Indonesia.
 1909: Persia: Russians occupied Tabriz.

Resistance to Colonization:

1861: Lebanon: Revolt by Druze.
 1862: China: Muslim rebels briefly seized control of Kunming, the capital of Yunnan province. Another revolt broke out in the Gansu province.
 1871: Algeria: Death of Mohammad Muqrani, in rebellion against France.
 1871: China: Muslim rebellion in Gansu collapsed after its leader Ma Hualong was publicly sliced to death.
 1873: China: Muslim rebellion in Yunnan province collapsed with the execution of Du Wenxiu. Insurgency continued (to this day) among the Uighur people in the Xinxiang province.
 1881: Egypt: Ahmad Arabi led a mutiny against the Anglo-French and Ottoman influence and became the prime minister.
 1881-82: Egypt: Occupation by Britain after rebellion led by Arabi Pasha.
 1885: Sudan: Khalifa Abdullah as the new leader continued his struggle against the British and the Egyptian forces.
 1891: Persia: Revolt against Nasir ad Din Shah for granting British monopoly over the tobacco trade was led by Mirza Hasan Shirazi. The shah was forced to cancel the decree.
 1905-06: Persia: Revolt against foreign influence and the incompetent Qajars. Ayn al-Dawla dismissed. Majlis met to draw up the first constitution.
 1906-07: Egypt: Resistance movements against British. Mustafa Kamil's national party and Lutfi Sayyid' Ummah party.

Reform Movements:

1865: Turkey: Establishment of the Young Turk party projecting nationalism and Islamic modernism under Namiq Kemal, Ziya Pasa, and Ali Suavi.
 1870: Sudan: Fundamentalist Islamic reforms under Mohammad Ahmad, the first Mahdi.
 1871: Afghanistan-Egypt: Jamal ud din Afghani moved to Egypt and along with Muhammad Abduh created a group advocating pan-Islamism. This group inspired the creation of the Muslim Brotherhood movement.
 1873: Tunisia: Khayr al-Din Pasa, the minister, introduced reforms.
 1874: Turkey: Collapse of the Turkish economy.
 1876: Turkey: Midhat Pasa introduced reforms, equal rights, and parliamentary government.

	<p>1878-1908: Turkey: Sultan Abdul Hamid introduced beneficial reforms in education and transportation and gave Islamic gloss to his policies.</p> <p>1881: Sudan: Mohammad Ahmad ibn Abdullah, the charismatic mystic leader, the Mahdi, embarked on a mission to purify Islamic practices.</p> <p>1889: Turkey: Sultan Abdul Hamid formally abolished slavery throughout the Ottoman Empire.</p> <p>1889: Turkey: Young Turks movement set up at the military medical institute. Unsuccessful attempt at revolution in 1892.</p> <p>1906: India: Leading Muslims form the All-India Muslim League to gain electoral influence as British decided to grant limited democracy.</p>
1911-1960	<p>Battles Won:</p> <p>1915: Turkey: To dissuade Turkey from siding with Germany in the First World War, British and commonwealth troops landed at Gallipoli. Mustafa Kamal told his soldiers, "I do not order you attack, I order you to die." Britain abandoned its Gallipoli campaign in 1916 after great loss of life.</p> <p>1916: Turkey: Britain after suffering massive losses at the hands of the Turkish forces abandoned its campaign in Gallipoli.</p> <p>Battles Lost:</p> <p>1911: Turkey-Libya: Italy seized Libya from the Ottomans.</p> <p>1911: Turkey: Dodecanese Islands, Aegean Sea: Italy took control over the Ottoman-held islands.</p> <p>1912: Turkey: First Balkan war. Greeks, Serbians, and Bulgarians made war to overthrow Ottoman rule.</p> <p>1913: Turkey: Second Balkan war. Ottomans lost 80 percent of European possessions, Salonika and Thrace. Albania became independent.</p> <p>1917: Jerusalem: General Allenby entered Jerusalem at the head of a British-Arab force. Arabs rejoiced at the defeat at the retreat by the Turkish forces. The French objected to the hoisting of the Arab flag by Prince Faisal in the cities captured by the European allies.</p> <p>1918: Turkey: General Allenby destroyed the remnants of the Turkish army in the Battle of Megiddo (Armageddon). This was the biggest land battle outside of Europe.</p> <p>1918: Turkey-Syria: General Allenby's forces conquered Damascus, Beirut, and Aleppo. On October 5, the Turks capitulated all of their Middle East possessions. This signalled the lowest point in Muslim power when the capitals of most of the Muslim countries were directly or indirectly under occupation by the Europeans or their Muslim clients. These included Fez, Algiers, Tripoli, Cairo, Damascus, Beirut, Samarqand, Mecca, Medina, Aden, Baghdad, Tehran, Delhi, Singapore, and Jakarta, among others.</p>

1918: Turkey: Greek troops began occupying the Turkish-possessed Aegean Islands.

1945: Turkey: Even though the defeat and surrender of Germany loomed on the horizon, Turkey joined the Axis alliance at this last moment.

1948: Israel-Palestine: Israel with their superior force took possession of Haifa and Jaffa after the withdrawal of British forces.

1948: Israel-Arabs: The first Arab-Israeli war was provoked upon Israel's proclamation of independence. Egyptian, Iraqi, Syrian, and Jordanian forces attacked but were repulsed. Israel gained much more territory than it was awarded in the first place. Up to seven hundred fifty thousand Palestinians were made refugees (a problem that still lingers).

1948: Kashmir: Helped by Pakistan's irregular forces, Muslim insurgency in the disputed state of Kashmir escalated. Large-scale landing of Indian troops at Srinagar. Because of the UN-declared cease-fire, the Muslims who constituted 77 percent of the population were left with 40 percent of the territory.

1949: Israel-Arabs: The combined forces of Egypt, Syria, Iraq, and Jordan suffered an ignominious defeat in the first Arab-Israeli war. As a result, Syrian politics became destabilized. Iraq dissociated itself from Britain seeking friendship elsewhere.

1956: Egypt-Israel-Britain-France: Following the nationalization of the Suez Canal by Nasser a full twelve years ahead of schedule, Britain evacuated its forces from the canal zone. On Egypt's refusal to join in the negotiations, Britain, France, and Israel drew up a plan to incapacitate Egypt's fledgling forces. Israeli land forces crossed the Sinai and reached near the canal zone while British and French air forces attacked Egypt's airfields.

External Treaties:

1911: Turkey: The takeover of Libya and Aegean Sea islands was formalized under the Treaty of Lausanne.

1913: Turkey: General Liman von Sanders of Germany assured Ottoman of German friendship.

1916: Middle East: Secret correspondence between Britain, France, and Russia resulted in the establishment of the **Sykes-Picot Accord** that unilaterally partitioned the Middle East into the British and French spheres of influence.

1917: Palestine: Declaration by Lord Balfour, the foreign secretary, who signalled British support for the Jewish state. This he did in his letter addressed to Lord Rothschild, the banker.

1919: Versailles Treaties: Set a new world order. Muslim lands subdivided into new countries with arbitrary frontiers under the auspices of colonial powers. Under Sykes-Picot Accord Syria and Lebanon mandated to France, Iran, Iraq, and Palestine to Britain. A new country, Yugoslavia, was created that included the Muslim areas of Bosnia and Kosovo.

1920: San Remo Treaty: An international conference sponsored by the newly created League of Nations attended by Britain, France, Italy, Belgium, Greece, and Japan confirmed the Sykes-Picot Accord.

1921: Iraq: At the Cairo conference, Faisal (the Arab-declared king of Syria who was displaced from Damascus by the French) was offered the kingship of Iraq by the British, which he accepted. Iraq remained a protectorate.

1926: Arabia: Under the Treaty of Jeddah, Britain recognized Ibn Saud as the king of Hejaz and Najd.

1930: Iraq: Anglo-Iraqi treaty confirmed independence of Iraq under Faisal I with Britain providing naval protection.

1934: Iraq-Iran: With British backing, Iraq acquired additional navigation rights over the Shatt al-Arab at the expense of Iran. The purpose of this loaded agreement was to keep the issue as a potential flashpoint in the future.

1943: Lebanon-Syria: The Free French under Charles de Gaulle who needed US and British assistance agreed to grant full independence to Lebanon and Syria.

1945: Middle East: As world war ended, the Allied powers granted further independence to Iraq, Iran, Syria, Lebanon, and Egypt. Their military influence and presence remained intact though.

1947: Palestine-Israel: Britain moved the UN for partitioning the territory into Jewish and Palestinian entities. The General Assembly (with the concurrence of Muslim states, including Saudi Arabia, represented by Prince Faisal) voted in favor of partitioning although in the case of Jewish entity, the Jews who only constituted 33 percent of the population and controlled 10 percent of the land were given control over 55 percent of the territory. The aftereffects of this award are evident to this day.

1949: Kashmir: Following the stalemate between Indian forces and the Muslim insurgents in Kashmir, UN Security Council passed a cease-fire resolution on January 1 promising a referendum to determine the wishes of the Kashmiri people. The UN also established a line of control that was supervised by Canadian forces.

1949: Israel-Arabs: The first Arab-Israeli war after an ignominious defeat for the Arabs ended with a cease-fire agreement. Syria, Iraq, and Jordan also signed in.

1950: Israel-Arabs: The three Western powers—US, Britain, and France—agreed to continue supplying arms to the belligerent parties under the pretext of maintaining “legitimate self-defense” capacity. Its effect was the exact opposite as the Arabs did not possess the capability or sophistication to set up adequate defenses against Israel.

1952: Turkey: Joined NATO to protect itself against the rising Soviet power.

1954: Israel-Egypt: Israel secured major arms supply agreements with France and the US. Egypt, which was now isolated, sought the same from the USSR.

1956: Egypt-UN: The US under President Eisenhower took a tough stand in the UN against aggression by the British, French, and Israel. He imposed economic sanctions on Britain and France forcing them to a cease-fire and the placement of UN forces in the canal zone.

1957: Eisenhower Doctrine: Was proclaimed under which any state, Muslim or not, could receive US military aid to combat Soviet-backed communism.

Rebellions, Civil Strifes, and Coups:

1913: Turkey: Coup d'état by Young Turks. These pro-German politicians led the empire into First World War.

1913: Arabia: Ibn Saud (with British arms) captured the Hassa province from the Ottomans. He strengthened the Wahhabi movement.

1913: Turkey: European powers encouraged Arab nationalism in Syria, Palestine, and Arabia in order to break the already weakened Ottoman Empire. The Arabs dutifully complied and rose in revolt.

1918: Turkey: Mehmed VI, the last Ottoman sultan, succeeded Mehmed V on his death.

1920: Arabia: Ibn Saud occupied Asir province and declared himself as the king.

1921: Persia: Coup (supported by Britain) by Rida Khan curtailed the powers of Shah Ahmad.

1922: Turkey: Mustafa Kemal arranged the abdication of Mehmed VI. He was replaced by Sultan Abdel Mejid.

1923: Persia: Reza Khan, an army officer and father of the future King Reza Shah Pahlavi, became the prime minister.

1923: Turkey: Ottoman caliphate was abolished by Ataturk. It lasted **four hundred seventy years**. Modernization and secularization program was commenced.

1926: Arabia: Sherif Hussain proclaimed himself as the new caliph but was ousted by Ibn Saud. Caliphate was discontinued.

1926: Arabia: The holy cities of Mecca and Medina surrendered to Ibn Saud who assumed the title of Protector of the Two Holy Cities and set up a Wahhabi state.

1925: Iran: Reza Shah ended the Qajar dynasty and usurped the throne by instituting the Pahlavi dynasty.

1928: Turkey: Abolition of Islam as the state religion. Latin alphabet introduced.

1928: Jordan: Was detached from Syria and granted to Emir Abdullah who had been expelled from Mecca.

1929: Arabia: Using British-supplied machine guns, an Ikhwan revolt at Sibilla was crushed by Ibn Saud. A less severe Wahhabi movement was officially supported.

1932: Saudi Arabia: Ibn Saud now controlling most of Arabia declared a new kingdom, Saudi Arabia.

1941: Iraq: Coup by Rashid Ali, a supporter of Germany. After his overthrow, the British restored the authority of King Faisal II and Prime Minister Nuri al-Said.

1948: Egypt: Prime Minister Mahmoud Nuqrashi was assassinated by the Muslim Brotherhood.

1949: Egypt: Founder of the Muslim Brotherhood Hassan al-Banna was assassinated with the complicity of the government.

1953: Syria: The dictator Adib Shisakli was overthrown by the Baath Party.

1958: Iraq: Following an anti-British military coup led by Abdel Karim Qassim, King Faisal and his minister Nuri al-Said were assassinated.

1958: Jordan: Fearing a similar coup, King Hussain was forced to seek the British help to save himself.

1958: Pakistan: Following political unrest, General Ayub Khan staged a coup.

1959: Egypt-Syria: UAR was disbanded following differences with the Baath Party of Syria.

1959: Iraq: Baath Party's Saddam Hussain was exiled following an attempt on Abdel Karim Kassem.

Repressions:

1915: Turkey: Accused the Armenians of siding with the Russians and launched a persecution campaign in which up to five hundred thousand civilians were killed.

1933: Germany: Adolf Hitler's nationalist party began persecuting Jews. As a result, Jewish emigration increased, especially to Palestine giving rise to elevated levels of tension with the Arabs.

1954: Egypt: Following attempt on his life, Nasser undertook a bloody purge against the Muslim Brotherhood. General Neguib who was under suspicion was dismissed by Nasser.

1957: Iran: With the help of the CIA and Mossad, Reza Shah created a brutal internal force, SAVAK.

1960: Indonesia: Sukarno disbanded the Muslim party Masjumi.

Atrocities:

1939: Iran: Mirza Farrokh Yazdi (b. 1887), a poet and a politician, was executed in Qasr prison by air injection under the notorious Dr. Ahmad Ahmadi during Reza Pahlavi I's rule.

1939: Israel: Militant Jews started a terror campaign by killing thirty-eight Arabs.

1946: Israel: Zionist blew up King David Hotel, the military headquarters of the British, causing ninety-three deaths.

1948: Israel: Zionist terrorists massacred two hundred fifty Arab civilians at Deir Yassin.

1948: Palestine: The Arabs retaliated by killing seventy-seven Israeli doctors and nurses in Jerusalem as British evacuated their forces.

1955: Egypt: Israeli commandos kill thirty-eight trainees in Gaza.

Internal Treaties and Positive Events:

1911: Libya: Occupation by Italy led to the demise of the African slave trade.

1920: Syria: An Arab assembly convened in Damascus proclaiming Prince Faisal as the king of Syria including Palestine and Lebanon.

1952: Egypt: After the coup against King Farouk, Colonel Nasser started an agenda of social and agrarian reforms called Arab Socialism.

1958: Egypt-Syria: Merged into one state called UAR, United Arab Republic, to counter US and British influence. In 1959, UAR was disbanded following differences with the Baath Party of Syria.

Colonial Trade and Political Treaties:

1911: Persia: Morgan Shuster of US took over the reorganization of the finances on the instructions of the Majlis.

1911: Persia: Russia exerted its influence. Formation of pro-Russian government and dismissal of Shuster.

1913-14: Turkey: Peace treaties of Istanbul and Athens confirmed the loss of lands in Greece and Balkans.

1916: Middle East: Division of Middle East and the creation of new countries—Iraq, Jordan, and Palestine—under Anglo-French protection and influence were agreed to by the Sykes-Picot Accord.

1917: Palestine: Declaration by Lord Balfour who signalled British support for the Jewish state in a letter to Lord Rothschild.

1919: Versailles Treaties: Set a new world order. Muslim lands subdivided into new countries with arbitrary frontiers under the auspices of colonial powers. Sykes-Picot Accord Syria and Lebanon mandated to France, Iran, Iraq, and Palestine to Britain. A new country, Yugoslavia, was created that included the Muslim areas of Bosnia.

1919: Iran: Treaty with Britain to bolster its influence, signed after bribing the cabinet.

1921: Iraq: Britain offered King Faisal, displaced from Syria, the throne of Iraq under its protection.

1922: Egypt: Granted nominal independence. Britain retained control over defense and foreign policy.

1922: Turkey: Conference of Mudanya. Allies evacuated Anatolia.

1923: Turkey: Under the Treaty of Lausanne, Turkey became a republic under Ataturk.

1927: Arabia: Britain acknowledged Ibn Saud as king of Hejaz and Najad.

1930: Iraq: Granted independence by Britain under their protection.

1931: Israel: Prime Minister Ramsey Macdonald offered unambiguous support for a Jewish homeland.

1932: Oil: Discovered in Bahrain. Standard Oil and Texas Oil companies started operations.

- 1932: Turkey and Iraq: Joined the League of Nations.
- 1933: Oil: Ibn Saud granted a sixty-year concession to Standard Oil of USA.
- 1933: Oil: Discovered in Kuwait.
- 1937: Iraq: Supported by Britain, Iraq at the expense of Iran gained more rights over Shatt al-Arab.
- 1932: Egypt: Joined League of Nations.
- 1944: Saudi Arabia: ARAMCO was formed to protect American oil interests.
- 1945: Syria and Lebanon joined the League of Nations.
- 1945: Arab League: Formed to coordinate Arab interests of Egypt, Syria, Lebanon, Jordan, Iraq, Saudi Arabia, and Yemen.
- 1950: Middle East: Following the nominal independence, Saudi Arabia, Kuwait, and other countries demanded increase in their share from a minimal rate to 50 percent. Western countries did not find it too hard to concede as they had complete monopoly over where the oil money was banked, when it was released, and how and where it was spent. Most of it ended up back into the pockets of the consultants, construction and armament companies.
- 1953: Iran: US offered full support to Reza Shah. This was matched with fresh concessions to US companies.
- 1954: Iran: Reza Shah renegotiated oil concessions with Britain, keeping in view the principle of eventual "nationalization" of its resources.
- 1954: Middle East Oil: A multinational consortium of US, French, and Dutch companies was formed. The US due to its commercial and military influence became the dominant partner.
- 1958: Libya: Oil was discovered in Libya.
- 1960: OPEC: At Saudi's initiative, OPEC, the Organization of the Petroleum Exporting Countries, was formed.

Conquests and Colonizations:

- 1912: Morocco: Divided into French and Spanish protectorates.
- 1914: Egypt: At the beginning of the First World War, Egypt became a British protectorate.
- 1914: Persia: Was occupied by the British and the Russian troops to guarantee oil supplies.
- 1914: Turkey: At the onset of the First World War, Britain demanded Turkish neutrality, but Turkey decided to side with Germany which then sent battleships to Bosphorus.
- 1915: Arabia: British viceroy to India negotiated with Ibn Saud and offered support if it were to decide in favor of revolt against the Turks.
- 1916: Arabia: Aided by T. E. Lawrence (Lawrence of Arabia), the sharif of Mecca declared revolt against the Ottomans and captured Mecca, Medina, and Taif.
- 1917: Jerusalem: General Allenby conquered Jerusalem after being under Muslim rule for seven hundred thirty years since its conquest by Saladin in 1187. Arabs rejoiced at this occasion.

1918: Turkey: General Allenby destroyed the Ottoman army at the Battle of Megiddo, which was the largest battle outside Europe. Ottomans capitulated on October 5, thus ending their rule.

1918: Damascus, Beirut: General Allenby entered Damascus and then Beirut. Ottoman Empire collapsed with many of its provinces occupied by the British, French, Italian, Greek, and Russian forces.

1918: Israel: Chaim Weizmann arrived in Palestine to test the Balfour declaration, to the dismay of Prince Faisal.

1920: Syria: France refused to acknowledge King Faisal's suzerainty and occupied Damascus.

1921: Egypt-Sudan: Were granted limited "independence" by the British, who retained full control over defense and external affairs.

1928: Jordan-Syria: Jordan was partitioned off from Syria by the British. Emir Abdullah who had been expelled in 1925 from Hejaz by Ibn Saud was acknowledged the new ruler of Jordan.

1930: Syria: Acquired a parliamentary constitution under the aegis of the French high commissioner.

1931: Israel: British prime minister Ramsey Macdonald offered unambiguous support for a Jewish homeland in Palestine in a letter (later known as the Black Letter) to Chaim Weizmann.

1934: Yemen: Britain granted limited independence to Yemen but kept Aden as its colony.

1937: Israel: David Raziel founded the militant Jewish organization Irgun Zvai Leumi (the National Military Organization) to inflict terror on Arabs.

1939: Israel: Militant Jews started a terror campaign by killing thirty Arabs.

1940: Israel: Abraham Stern founded the second militant gang Loham Herut Israel (Fighters for the Freedom of Israel, also known as Stern.)

1941: Lebanon: Was granted a new constitution by the European powers in which the majority Muslims and Druze had lesser constitutional status as compared to the Maronite Christians.

1943: Israel: In wake of the news of Nazi atrocities, American Zionists accelerated lobbying for the creation of the Jewish state.

1944: Israel: Irgun group under Menachem Begin started a bombing campaign against the British. The Stern gang assassinated the British resident Lord Moyne in Cairo as well as British police officers.

1945: Israel: Following the mass-scale killing of Jews, Britain changed its policy toward the Jewish state.

1945: Jordan: The British allowed the enlargement of the Hashemite kingdom of Transjordan to include the West Bank. This resulted in the Palestinians constituting more than half of its population.

1946: Israel: Zionists blew up King David Hotel, the military headquarters of the British, causing ninety-three deaths.

1947: Israel: American support for the creation of Israel gained strength as Palestinian unrest grew. British moved the UN for partitioning the territory into Jewish and Palestinian entities. General Assembly (with the concurrence of Muslim states, including Saudi Arabia) voted in favor of partitioning although in the case of Jewish entity, the Jews who only constituted 33 percent of the population and controlled 10 percent of the land were given control over 55 percent of the territory

1948: Israel: The UN representative Count Bernadotte was assassinated by the Zionists. David Ben Gurion ordered the dissolution of Irgun and the Stern gangs.

1948: Israel: David Ben Gurion proclaimed the state of Israel inside Palestine. It was immediately recognized by the US. The USSR followed suit as it wanted a place where its unwanted Jews could go.

1948: Israel: As a result of the first Arab-Israeli war, Israeli gained territory resulting in the uprooting of seven hundred fifty thousand Arabs.

1956: Egypt-Palestine: Following the Anglo-French Israel attack on Egypt and after the UN-sponsored cease-fire, Israel's forces did not vacate the Sinai. This prevented Egypt from exerting its influence on the Palestinian refugee enclave in Gaza.

1958: Lebanon: Following unrest between the Arab nationalists and the pro-Western Christian Maronite, Camille Chamoun requested American aid, which was delivered in the form of ten thousand marines.

1958: Jordan: Fearing a coup similar to that in Iraq, King Hussain requested the help of British troops to safeguard his throne.

Resistance Movements and Politics:

1909: India: Hindus launched a campaign against the British, calling for full and immediate independence.

1912: Indonesia: Muhammadiyah, a Muslim reformist movement, was founded by Ahmad Dahlan. Resistance to the Dutch.

1918: Egypt: Said Zaghlul submitted demands for independence and was arrested. Rebellion was suppressed.

1918-22: Turkey: Last Sultan, Mehmed VI Wahid ul Din.

1919: Turkey: After Greek invasion, Ataturk organized the war of independence against the Allied forces.

1919: Israel: Large-scale migration to Palestine by Jewish people began. They started extensive buying of prime lands from simple-minded Arabs. This gave rise to the Black Hand movement that launched attacks against the new settlers. (The aftereffects linger to this day.)

1919: India: Massacre of four hundred protestors at Amritsar by the British army under Colonel Dwyer.

1919: India: Rise of the Khilafat movement calling for the continuation of the Islamic (Ottoman) caliphate and the end of the British rule.

- 1919: Afghanistan: Third Anglo-Afghan war. Durrani dynasty reestablished.
- 1920: Iraq: Anti-British uprising.
- 1921: Turkey: Greek invasion was repelled. Constitution of the republic proclaimed in Ankara.
- 1922: Israel: In face of Arab discontent, Britain expelled Jewish settlers from Transjordan.
- 1925: Syria: Sultan al-Atrash declared Syria as a republic.
- 1927: Indonesia: Ahmed Sukarno founded the National Party of Indonesia and demanded independence.
- 1930: Israel: Izz al-Din al-Qassam declared jihad against the Jewish settlers.
- 1933: Israel: Jewish immigration picked up because of Hitler's policies.
- 1934: Yemen: While retaining Aden, Britain granted independence to Yemen.
- 1939: Second World War: Turkey remained neutral while Arab countries sided with Britain against Germany.
- 1940: Syria and Lebanon: As France fell to German army, these countries came under German control.
- 1940: India: Muslim League added Bengal to the territories it sought to incorporate in a separate Muslim homeland in India.
- 1941: Syria and Lebanon: Under British control, Lebanon was granted independence. The new constitution affirmed the precedence of the minority Maronite Christians over the majority Muslims.
- 1941: Iran: Over suspicion that Reza Khan was colluding with Germany, British and Russian forces entered Iran. Reza Khan was replaced by his Anglophile son Reza Shah.
- 1941: India: Abul Ala Maududi founded Jamaat-i-Islami dedicated to the creation of a Muslim state.
- 1942: Egypt: Muslim Brotherhood party set up a clandestine group and began military training in order to throw out the British.
- 1943: Syria and Lebanon: The Free French under de Gaulle acknowledged their independence.
- 1945: Indonesia: Sukarno declared independence from the Dutch.
- 1945: Arab League: An organization to foster Arab unity and to coordinate development was formed in Cairo with Abul Rahman Azzam as its first secretary general.
- 1945: Indonesia: At the conclusion of the world war and the expulsion of the Japanese occupying forces, Ahmad Sukarno declared independence from the Dutch on August 17.
- 1946: United Nations: Most Muslim states became members of the newly formed organization.
- 1946: India: Muslim League launched "Direct Action to Achieve Pakistan."
- 1946: Jordan: Britain arranged the inclusion of the West Bank.

1947: Palestine-Israel: In view of the unjust award of territories in favor of Israel, the grand mufti of Jerusalem issued a fatwa. Open warfare started in which the Jews were at an advantage due to the clandestine supply of arms from Europe.

1947: India and Pakistan: Gained independence. Pakistan was shortchanged in terms of territory, resulting in large-scale migration and loss of nearly a million people.

1948: Kashmir: As an aftermath of India-Pakistan war, UN passed a resolution for cease-fire and a referendum to determine the wishes of the people.

1949: Kashmir: Line of control between Pakistan and India established on January 1.

1949: Egypt-Israel: Agreed to a cease-fire on February 24.

1950: Middle East: Tripartite agreement between US, Britain, and France to supply arms to the countries to help achieve self-defense capability (in fact starting a never-ending arms race and conflict).

1950: Indonesia: Gained independence from the Dutch after a four-year war.

1951: Iran: Because of resentment toward Reza Shah's policies that favored Western oil companies, his prime minister General Razmara was assassinated. Parliament appointed Muhammad Musaddiq as the prime minister who then nationalized Iranian oil resources, resulting in petrol (gas) rationing in Britain.

1951: Jordan: King Abdullah was assassinated due to his disregard of the plight of the Palestinians living under Israel's occupation. His British-educated son King Hussain succeeded.

1952: Iran: Reza Shah attempted to replace Musaddiq with his nominee Ahmad Qawan but was unsuccessful due to riots in Tehran and elsewhere.

1952: Egypt: Civil unrest by Muslim Brotherhood resulted in the Black Saturday riot and the killing of eighteen Britons. Gamal Abdul Nasser staged a coup, with General Neguib as the nominal leader. The pro-British king Farouk was exiled.

1953: Egypt: Was declared a republic. Bombings against the US and British interests in Cairo, first thought to be by nationalists, were later exposed as a work by Israeli agents.

1953: Iran: The shah dismissed Musaddiq and replaced him with his son-in-law, General Zahedi. Following riots, Shah fled to Rome, and Zahedi took refuge in the US embassy. Iranian military assisted by the US and British intelligence overthrew Musaddiq. Reza Shah returned. US announced an aid package.

1954: Algeria: FLN, Front Liberation Nationale, began an eight-year bloody revolt against the French.

1954: Tunisia: Gained autonomy from France.

1954: Sudan: Confronted with a hostile regime under Nasser in Egypt, Britain agreed to grant nominal independence.

1956: Jordan: To cater to anti-imperialist feelings, King Hussain dismissed his army's British chief of staff, General Glubb Pasha.

1956: Egypt: Nasser nationalized the Suez Canal twelve years prior to the formal end of the Anglo-French agreement.

1956: Egypt: Full-scale aggression. Israeli forces reached within thirty kilometers of the canal. British and French paratroopers landed at Port Said. USSR threatened to intervene. General Eisenhower imposed sanctions on Britain and French forcing them to declare cease-fire. UN forces were stationed, but Israeli forces remained in Sinai.

1956: Morocco: Ceased to be a French protectorate and gained independence under King Muhammad V.

1957: Saudi Arabia: Launched attack against Oman, still under British protection, due to a territorial dispute. This was repulsed with British assistance.

1957: Jordan: Renounced treaties with Britain and came under US influence. It entered into alliance with Egypt, Syria, and Saudi Arabia.

1957: Palestine: Liberation movement al-Fatah was launched by Yasser Arafat in Cairo.

1957: Malaysia: Following war against communist guerrillas, Malaysia under Tunku Abdur Rahman was granted independence by Britain.

1958: Lebanon: Following unrest between Arabs and the pro-Western Maronite under Camille Chamoun, US sent ten thousand marines.

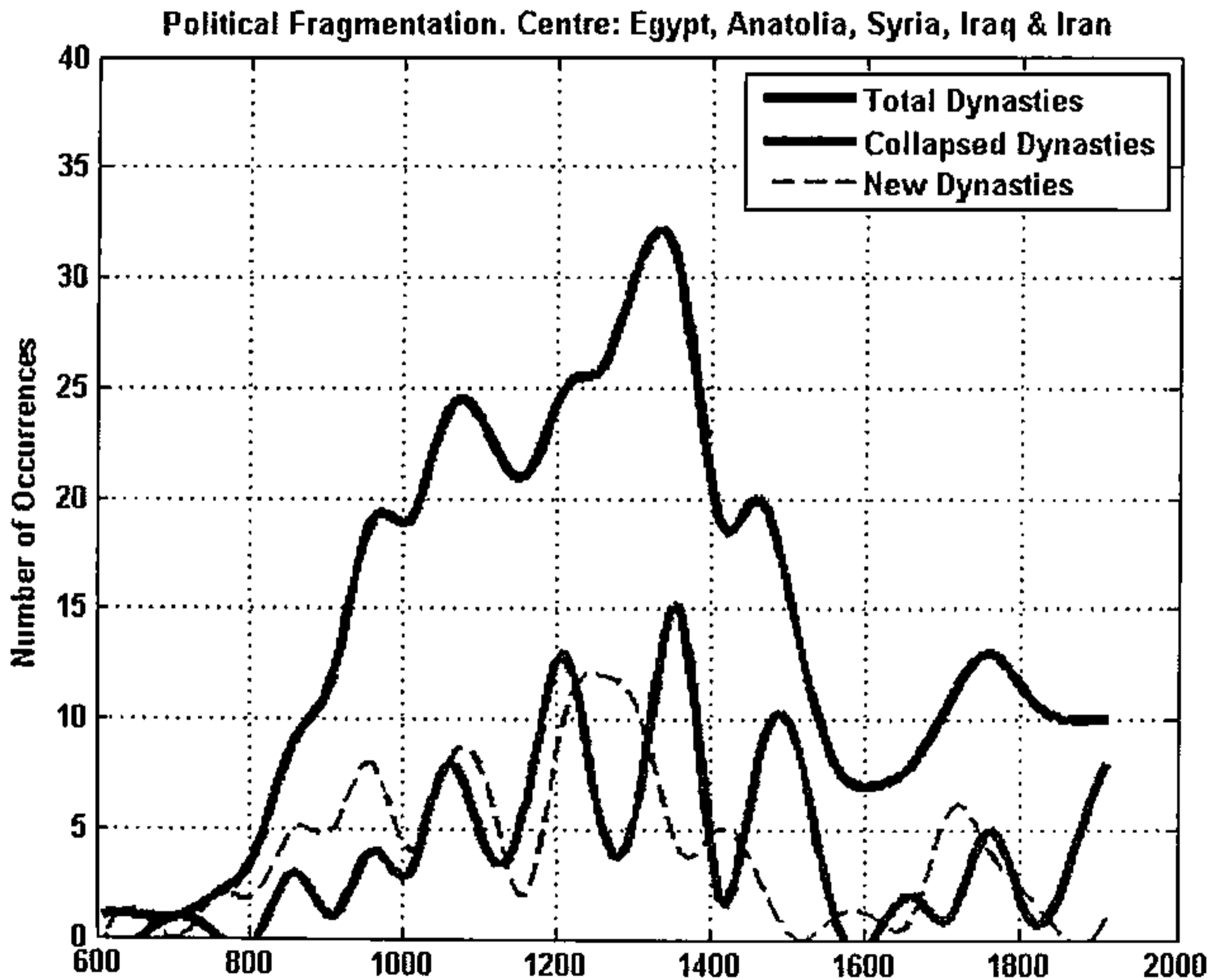
Appendix 5

Tabulation of Ruling Dynasties

Detailed Tabulation

a. Central Region

(Egypt, Palestine, Syria, Anatolia, Southeast Europe, Iraq, Iran, and Arabia)



	Dynastic Regimes	Duration Years	End of Dynastic Regime	Total # of Rulers	Average Duration / Ruler	# Ruler Changes (50-yr Period)
632-660	Khilafat-i-Rashida, 632-660	32		4	6.3	4
	Number of Concurrent Regimes:		1			
	Number of Regimes Ended:		0			
	Number of New Regimes:		0			
	Cumulative Number of Ruler Changes:		4			
661-710	Umayyads, Damascus, 661-750	89		14	6.3	5
	Number of Concurrent Regimes:		1			
	Number of Regimes Ended:		0			
	Number of New Regimes:		1			
	Cumulative Number of Ruler Changes:		5			
711-760	Umayyads, Damascus, 661-750		← Defeated by Abbasids			9
	Number of Concurrent Regimes:		1			
	Number of Regimes Ended:		1			
	Number of New Regimes:		0			
	Cumulative Number of Ruler Changes:		9			
761-810	Abbasids, Iraq, 750-1258	508		37	13.7	5
	Justanids, Caspian Sea, 791-972	181		11	16.5	2
	Number of Concurrent Regimes:		2			
	Number of Regimes Ended:		0			
	Number of New Regimes:		2			
Cumulative Number of Ruler Changes:		7				
811-860	Abbasids, Iraq, 750-1258					4
	Justanids, Caspian Sea, 791-972					1
	Samanids (Governors), Persia, 819-1005	186		11	17	1
	Tahirids (Governors) Persia, 821-891	70		5	10.5	4
	Number of Concurrent Regimes:		4			
Number of Regimes Ended:		0				
Number of New Regimes:		2				
Cumulative Number of Ruler Changes:		10				

861-910	Abbasids, Iraq, 750-1258					8
	Justanids, Caspian Sea, 791-972					0
	Samanids, Persia, 819-1005					3
	Tahirids (governors) Persia, 821-873		Tahirids ←			1
	Saffarids, Persia, 867-914	57	Saffarids	12	4.7	8
	Tulunids, Egypt (G), 868-905	37	Tulunids ← Abbasids	5	7.4	5
	Hashimids, Daghistan, 869-1075	206	Hamadanids ←	28	7.4	3
	Hamadanids, Mosul, 906-1004	98	Uqlaydis	7	14	3
	Fatimids, Egypt, 909-1171	262		15	17.5	4
	Number of Concurrent Regimes:		9			
Number of Regimes Ended:		3				
Number of New Regimes:		5				
Cumulative Number of Ruler Changes:		35				
911-960	Abbasids, Iraq, 750-1258					5
	Justanids, Caspian Sea, 791-972					3
	Samanids, Persia, 819-1005					2
	Saffarids, Persia, 867-914		Saffarids ← Samanids			4
	Hashimids, Daghistan, 869-1075					8
	Hamadanids, N. Syria, 906-1004					1
	Fatimids, Egypt, 909-1171					2
	Rawadids, Kurds, Tabriz, 925-1071	146		6	24	2
	Ziyarids, Tabaristan, 931-1090	159		10	15.9	2
	Ikhshidids, Egypt, S. Syria, 935-969	34		5	6.8	2
	Musafirids, Daylam, 941-1062	121		6	20	1
	Buyids, Fars (Baghdad), 945-1055	110		11	10	1
	Number of Concurrent Regimes:		12			
Number of Regimes Ended:		1				
Number of New Regimes:		5				
Cumulative Number of Ruler Changes:		33				
961-1010	Abbasids, Iraq, 750-1258		Justanids ← Seljuqs			2
	Justanids, Caspian Sea, 791-972		Sawtagin			6
	Samanids, Persia, 819-1005		Samanids ←			5
	Hashimids, Daghistan, 869-1075		Qarakhanids & Ghaz			3
	Hamadanids, N. Syria, 906-1004		Hamadanids ← Buyids			3
	Fatimids, Egypt, 909-1171		Ikhshidids ← Fatimids			2
	Rawadids, Kurds, Tabriz, 925-1071					2
	Ziyarids, Tabaristan, 931-1090					3
	Ikhshidids, Egypt, S. Syria, 935-969					3
	Musafirids, Daylam, 941-1062					3
	Buyids, Fars (Baghdad), 945-1055					5
	Shaddadids, E. Armenia, 951-1075	124		9	13.7	1

	Mazyadids, C. Iraq, 961-1150	189		9	21	
	Hasanuyids, Kurdistan, 961-1015	54		5	10.8	
	Mirwanids, Diyarbakir, 983-1085	102		5	20.4	
	Numyarids, Harra, Syria, 990-1081	91		4	23	
	Anazids, Kurdistan, 991-1150	51		8	6.4	
	Uqaylids, Mosul, 992-1096	104		8	13	
	Kukuyids, Kurdistan, 1008-1141	133		5	27	
	Number of Concurrent Regimes:	19				
	Number of Regimes Ended:	4				
	Number of New Regimes:	8				
	Cumulative Number of Ruler Changes:	50				
1011-1060	Abbasids, Iraq, 750-1258					16
	Hashimids, Daghistan, 869-1075					16
	Fatimids, Egypt, 909-1171	192	Musafirids ← Ismailis	25	7.7	2
	Rawadids, Kurds, Tabriz, 925-1071	56	Buyids ← Seljuqs	9	6.1	4
	Ziyarids, Tabaristan, 931-1090	195		16	12.2	1
	Musafirids, Daylam, 941-1062	154	Hasanuyids ← Anazids	18	8.6	2
	Buyids, Fars (Baghdad), 945-1055					5
	Shaddadids, E. Armenia, 951-1075					3
	Mazyadids, C. Iraq, 961-1150					1
	Hasanuyids, Kurdistan, 961-1015					3
	Mirwanids, Diyarbakir, 983-1085					2
	Numyarids, Harra, Syria, 990-1081					2
	Anazids, Kurdistan, 991-1150					4
	Uqaylids, Mosul, 992-1096					2
	Kukuyids, Kurdistan, 1008-1141					2
	Qarakhanids, Western, 1020-1212					4
Mirsadids, Northern Syria, 1024-1080					4	
Nasirids, Sistan, 1030-1225					3	
Great Seljuqs, Iraq, 1040-1194					2	
	Number of Concurrent Regimes:	19				
	Number of Regimes Ended:	3				
	Number of New Regimes:	4				
	Cumulative Number of Ruler Changes:	56				
1061-1110	Abbasids, Iraq, 750-1258					2
	Hashimids, Daghistan, 869-1075		Hashimids ← Seljuqs			4
	Fatimids, Egypt, 909-1171					4
	Rawadids, Kurds, Tabriz, 925-1071		Rawadids ← Seljuqs			4
	Ziyarids, Tabaristan, 931-1090		Ziyarids ← (Buyids) & Seljuqs			1
	Shaddadids, E. Armenia, 951-1075					2
Mazyadids, C. Iraq, 961-1150		Shaddadids ← Seljuqs			3	

	Mirwanids, Diyarbakir, 983-1085		Mirwanids ← Seljuqs			1
	Numyarids, Harra, Syria, 990-1081		Numyarids ← Seljuqs			1
	Anazids, Kurdistan, 991-1150					1
	Uqaylids, Mosul, 992-1096		Uqaylids (1096) ←			3
	Saltuqids, E. Anatolia, 1102-1202	100	Seljuqs	8	8.7	2
	Danishmands, E. Anatolia, 1104-1174	70		8	12.5	1
	Kukuyids, Kurdistan, 1008-1141					1
	Qarakhanids, Western, 1020-1212					9
	Mirsadids, NC Syria, 1024-1080		Mirsadids (1080) ←			5
	Nasirids, Sistan, 1030-1225		Uqaylids			4
	Great Seljuqs, Iraq, 1040-1194					6
	Seljuqs, Rum, Konya, 1077-1307	230		27	8.5	4
	Khwarizm Shahi, 1077-1231	154		8	19.3	1
	Nizaris (Assassins), 1090-1256	166		8	1	2
	Shahi Arminds, Turkistan, 1100-1207	107		10	10.7	1
	Burids, Damascus, 1104-1154	51		6	8.5	1
	Baduspanids, Caspian Sea, 1109-1400	291		21	13.8	1
	Number of Concurrent Regimes:	24				
	Number of Regimes Ended:	8				
	Number of New Regimes:	8				
	Cumulative Number of Ruler Changes:	61				
111-1160	Abbasids, Iraq, 750-1258					4
	Fatimids, Egypt, 909-1171		Mazyadids ← Abbasids			4
	Mazyadids, C. Iraq, 961-1150		Anazids ← Seljuqs			4
	Anazids, Kurdistan, 991-1150					1
	Danishmands, E. Anatolia, 1104-1174					2
	Saltuqids, E. Anatolia, 1102-1202		Kukuyids ← Atabegs			3
	Kukuyids, Kurdistan, 1008-1041		of Yazd			1
	Qarakhanids, Western, 1020-1212					7
	Nasirids, Sistan, 1030-1225					0
	Great Seljuqs, Iraq, 1040-1194					7
	Seljuqs, Rum, Konya, 1077-1307					6
	Khwarizm Shahi, 1077-1231					2
	Nizaris (Assassins), 1090-1256					5
	Shahi Arminds, Turkistan, 1100-1207		Burids ← Zengids			3
	Burids, Damascus, 1104-1154					5
	Baduspanids, Caspian Sea, 1109-1400					3
	Ahmadalis, Azerbaijan, 1122-1209	87		9	9.8	2
	Zengids, Mosul, Aleppo, 1127-1251	124		9	13.8	3
	Atabeg, Yazd, 1141-1297	156		9	17.3	1
	Mengujekids, N. Anatolia, 1142-1228	86		5	17.2	1
	Ildiguzids, Azerbaijan, 1145-1225	80		6	13.3	1
	Salghurids, Fars, 1148-1282	134		11	12.2	1

	Hazaraspids, Luristan, 1148-1424	276		17	16.2	
	Number of Concurrent Regimes:	23				
	Number of Regimes Ended:	4				
	Number of New Regimes:	7				
	Cumulative Number of Ruler Changes:	65				
1161-1210	Abbasids, Iraq, 750-1258					2
	Fatimids, Egypt, 909-1171		Fatimids ← Ayyubids			1
	Qarakhanids, Western, 1020-1212	83	Saladin	9	9.2	6
	Saltuqids, E. Anatolia, 1102-1202	49		4	12	4
	Danishmands, E. Anatolia, 1104-1174		Saltuqids ← Seljuqs, Rum			4
	Nasirids, Sistan, 1030-1225					4
	Great Seljuqs, Iraq, 1040-1194		Danishmands ←			2
	Seljuqs, Rum, Konya, 1077-1307		Seljuqs, Rum			2
	Khwarizm Shahi, 1077-1231					3
	Nizaris (Assassins), 1090-1256		Great Seljuqs ←			2
	Baduspanids, Caspian Sea, 1109-1400		Khwarizms			6
	Shahi Arminds, Turkistan, 1100-1207					6
	Ahmadalis (Sulafa Khatun), 1122-1209		Shahi Arminds ←			3
	Zengids, Mosul, Aleppo, 1127-1251		Ayyubids			3
	Atabegs, Yazd, 1141-1297		Ahmadalis ← Ildiguzids			2
	Mengujekids, N. Anatolia, 1142-1228					2
	Ildiguzids, Azerbaijan, 1145-1225					4
Salghurids, Fars, 1148-1282					3	
Hazaraspids, Luristan, 1148-1424					5	
Ayyubids, Egypt, 1169-1252					4	
Artughids, N. Iraq, 1185-1234					2	
	Number of Concurrent Regimes:	21				
	Number of Regimes Ended:	6				
	Number of New Regimes:	2				
	Cumulative Number of Ruler Changes:	70				
1211-1260	Abbasids, Iraq, 750-1258		Mongol Halaku sacked Baghdad			4
	Baduspanids, Caspian Sea, 1109-1400					2
	Qarakhanids, Western, 1020-1212		Qarakhanids ←			1
	Nasirids, Sistan, 1030-1225		Khwarizms			7
	Seljuqs, Rum, Konya, 1077-1307		Nasirids, Sistan ←			8
	Khwarizm Shahi, 1077-1231		Khwarizms			2
	Nizaris (Assassins), 1090-1256		Seljuqs, Rum,			1
	Zengids, Mosul, Aleppo, 1127-1251		Konya ← Mongols			3
	Atabegs, Yazd, 1141-1297		Khwarizms ← Mongols			4
	Mengujekids, N. Anatolia, 1142-1228		Nizaris ← Mongols			2
Ildiguzids, Azerbaijan, 1145-1225		Zengids ← Ayyubids			1	

	Salghurids, Fars, 1148-1282		Mengujekids ←			3
	Hazaraspids, Luristan, 1148-1424		Seljuqs, Rum			3
	Ayyubids, Egypt, 1169-1252		Ildiguzids ←			5
	Artughids, N. Iraq, 1185-1234		Khwarizms			2
	Qutluq Khanids, Kirman, 1222-1307	85		9	9.4	5
	Choban, Anatolia, 1227-1309	72	Ayyubids ← Mamluks	4	18	2
	Atabegs of Aleppo, 1234-1262	28	Artughids ← Seljuqs	4	7	3
	Mehrabandis, Sistan, 1236-1501	265		15	17	2
	Alwadids (Ziyarids), 1236-1555	319	Atabegs ← Mongols	29	11	1
	Bawandids, Amul, 1238-1349	111		8	14	2
	Kurts, Khorasan, 1245-1389	144		8	18	1
	Mamluks, Bahri, Nile, 1250-1390	140		35	4	7
	Qaramanids, Anatolia, 1256-1475	219		17	12.9	1
	Ilkhanids, Mongols, 1256-1388 (Muslim from 1295 onward)	132		14	9.4	1
Number of Concurrent Regimes: 25						
Number of Regimes Ended: 13						
Number of New Regimes: 10						
Cumulative Number of Ruler Changes: 73						
1261-1310	Baduspanids, Caspian Sea, 1109-1400					5
	Seljuqs, Rum, Konya, 1077-1307		Seljuqs, Konya ←			9
	Atabegs, Yazd, 1141-1297		Mongols			2
	Salghurids, Fars, 1148-1282		Atabegs ← Mongols			3
	Hazaraspids, Luristan, 1148-1424		Salghurids ← Mongols,			3
	Qutluqkhanids, Kirman, 1222-1307		Ilkhans			4
	Choban, Qastamuni, 1227-1309		Qutluqkhanids ←			2
	Mehrabandis, Sistan, 1236-1501		Mongols			2
	Alwadids (Ziyarids), 1236-1555		Choban ← Jandar,			3
	Bawandids, Amul, 1238-1349		Isfandiyar			3
	Kurts, Khorasan, 1245-1389					4
	Mamluks, Bahri, Nile, 1250-1390					3
	Ilkhanids, Mongols, 1256-1353					13
	Qaramanids, Anatolia, 1256-1475					7
	Abbasids (under Mamluks), 1261-1517	256		22	11.6	3
	Inanj, SW Anatolia, 1261-1369	108		6	18	3
	Sahib Ata, WC Anatolia, 1271-1341	70		3	23.3	2
	Parwana, Black Sea area, 1277-1322	45		3	15	2
	Menteshe, SW Anatolia, 1280-1391	111		5	22.2	2
	Ottomans, Turkey, 1281-1924	231		13	17.8	4
<i>Total: 1281-1924 = 643 y, 39 rulers</i>	643		39	16.5	2	
Jander, Isfandria Black Sea, 1292-1393	101		7	14.4	2	
Beys, Alanya, S. Anatolia, 1293-1471	178		7	25.4	1	
Qarasi, SW Anatolia, 1297-1346	49		4	12.2	1	

	Germiyan, SW Anatolia, 1299-1390	91		4	25	1	
	Hamid & Tekke, WC Anatolia, 1301-93	92		7	13.1	3	
	Aydin, W. Anatolia, 1308-1390	82		4	20.5	1	
	Number of Concurrent Regimes:	26					
	Number of Regimes Ended:	5					
	Number of New Regimes:	12					
	Cumulative Number of Ruler Changes:	85					
1311-1360	Baduspanids, Caspian Sea, 1109-1400					5	
	Hazaraspids, Luristan, 1148-1424					4	
	Mehrabandis, Sistan, 1236-1501					5	
	Alwadids (Ziyarids), 1236-1555					3	
	Bawandids, Amul, 1238-1349			Bawandids ← Turks		2	
	Kurts, Khorasan, 1245-1389			Kurts, Khorasan ←		3	
	Mamluks, Bahri, Nile, 1250-1390			Timurids		9	
	Ilkhanids, Mongols, 1256-1388			Ilkhanids ← Split up		5	
	Qaramanids, Anatolia, 1256-1475					2	
	Abbasids (under Mamluks), 1261-1517					3	
	Inanj, SW Anatolia, 1261-1369					5	
	Sahib Ata, WC Anatolia, 1271-1341			Sahib Ata ← Germiyan		1	
	Parwana, Black Sea area, 1277-1322			Parwana ← Jander,		1	
	Menteshe, SW Anatolia, 1280-1391			Isfandiar		2	
	Ottomans, Turkey, 1281-1924					2	
	Jander Isfandiar Black Sea, 1292-1393					3	
	Beys, Alanya, S. Anatolia, 1293-1471					3	
	Qarasi, SW Anatolia, 1297-1346			Qarasi ← Ottomans		3	
	Germiyan, SW Anatolia, 1299-1390					2	
	Hamid & Tekke, WC Anatolia, 1301-93					2	
	Aydin, W. Anatolia, 1308-1390	77			4	19.2	2
	Saru Khan, W. Anatolia, 1313-1390	79			5	16	3
	Muzaffarids, Khorasan, 1314-1393	28			4	7	2
	Injuids, Khorasan, 1325-1353	44		Injuids, Khorasan ←	4	11	4
	Eretna, NE Anatolia, 1336-1380	49		Muzaffarids	12	4	2
	Sarbadarids, Khurasan, 1337-1386	184			11	16.7	8
Dulqadir, SE Anatolia, 1337-1521	102			11	9.3	2	
Jalayirids, Azerbaijan, 1340-1432	50			4	12.5	2	
Taj al-Din, Black Sea, 1348-1398	117			12	9.8	1	
Qara Qoyunlu, E. Armenia, 1351-1468	148			17	8.7	1	
Aq Qoyunlu, Azerbaijan, 1360-1508						1	
	Number of Concurrent Regimes:	31					
	Number of Regimes Ended:	7					
	Number of New Regimes:	10					
	Cumulative Number of Ruler Changes:	93					

1361-1410	Baduspanids, Caspian Sea, 1109-1400		Baduspanids ←			4
	Hazaraspids, Luristan, 1148-1424		Timurids			2
	Mehrabandis, Sistan, 1236-1501	136		12	11.3	3
	Alwadids (Ziyarids), 1236-1555	138	Mam. Bahri ←	10	13.8	6
	Kurts, Khorasan, 1245-1389	12	Mamluks Burji	2	6	1
	Mamluks, Bahri, Nile, 1250-1390	135	Ilkhanids ← Timurids	28	4.8	6
	Ilkhanids, Mongols, 1256-1388					1
	Qaramanids, Anatolia, 1256-1475					2
	Abbasids (under Mamluks), 1261-1517					7
	Inanj, SW Anatolia, 1261-1369		Inanj ← Germiyan			1
	Menteshe, SW Anatolia, 1280-1391		Menteshe ← Ottomans			1
	Ottomans, Turkey, 1281-1924					3
	Jander, Isfandria Black Sea, 1292-1393		Jander, Isfandria ←			2
	Beys, Alanya, S. Anatolia, 1293-1471		Ottomans			2
	Germiyan, SW Anatolia, 1299-1390		Germiyan ← Ottomans			1
	Hamid & Tekke, WC Anatolia, 1301-93		Hamid & Tekke ←			2
	Aydin, W. Anatolia, 1308-1390		Ottomans			1
	Saru Khan, W. Anatolia, 1313-1390		Aydin ← Ottomans			1
	Muzaffarids, Khorasan, 1314-1393		Saru Khan ← Ottomans			3
	Eretna, NE Anatolia, 1336-1380		Muzaffarids ←			2
	Sarbadarids, Khorasan, 1337-1386		Timurids			4
	Dulqadir, SE Anatolia, 1337-1521		Eretna ← Qadi			2
	Jalayirids, Azerbaijan, 1340-1432		Burhanuddin			4
	Taj al-Din, Black Sea, 1348-1398		Sarbadarids ← Timurids			3
	Qara Qoyunlu, E. Armenia, 1351-1468		Taj al-Din ← Ottomans			3
	Aq Qoyunlu, Azerbaijan, 1360-1508					2
	Timurids, C. Asia, E. Europe, 1370-1506					5
	Ramadan, Armenia, 1378-1516					2
	Qadi Burhanuddin, 1380-1392		Qadi Burhanuddin ←			2
	Mamluks, Burji, Cairo, 1382-1517		Ottoman			7
Number of Concurrent Regimes:		30				
Number of Regimes Ended:		15				
Number of New Regimes:		4				
Cumulative Number of Ruler Changes:		85				
11-1460	Hazaraspids, Luristan, 1148-1424		Hazaraspids ←			2
	Mehrabandis, Sistan, 1236-1501		Timurids			2
	Alwadids (Ziyarids), 1236-1555					6
	Qaramanids, Anatolia, 1256-1475					4
	Abbasids (under Mamluks), 1261-1517					4
	Ottomans, Turkey, 1281-1924					3
	Beys, Alanya, S. Anatolia, 1293-1471					2
	Dulqadir, SE Anatolia, 1337-1521		Jalayirids ← Qara			2
Jalayirids, Azerbaijan, 1340-1432		Qoyunlu			5	

	Qara Qoyunlu, E. Armenia, 1351-1468					6
	Aq Qoyunlu, Azerbaijan, 1360-1508					5
	Timurids, C. Asia, E. Europe, 1370-1506					4
	Ramadan, Armenia, 1378-1517					5
	Mamluks, Burji, Cairo, 1382-1517					10
	Mushashadids, W. Khuzistan, 1435-1924	489				2
	Muslim khanates occupied by Russia:					
	Kazan, 1437-1552	95		21	4.5	2
	Astar Khan, 1446-1557	111		8	14	1
	Giray Khan of Crimea, 1449-1792	343		70	4.9	3
	Qasimov, near Moscow, 1452-1681	229		16	14.3	1
	Number of Concurrent Regimes:	19				
	Number of Regimes Ended:	2				
	Number of New Regimes:	5				
	Cumulative Number of Ruler Changes:	69				
1461-1510	Mehrabandis, Sistan, 1236-1501		Mehrabandis ←			3
	Alwadids (Ziyarids), 1236-1555		Safavids			4
	Qaramanids, Anatolia, 1256-1475	99		12	8	2
	Abbasids (under Mamluks), 1261-1517	264	Qaramanids ←	18	15.5	5
	Ottomans, Turkey, 1281-1924	191	Ottomans	6	32	6
	Beys, Alanya, S. Anatolia, 1293-1471		Mam+Abbasids ←			1
	Dulqadir, SE Anatolia, 1337-1521		Ottomans			4
	Qara Qoyunlu, E. Armenia, 1351-1468					2
	Aq Qoyunlu, Azerbaijan, 1360-1508		Beys, Alanya ←			9
	Timurids, C. Asia, E. Europe, 1370-1506		Ottomans			3
	Ramadan, Armenia, 1378-1517		Dulqadir ← Ottomans			2
	Mamluks, Burji, Cairo, 1382-1517		Qara Qoyunlu ← Aq			11
	Mushashadids, W. Khuzistan, 1435-1924		Qoyunlu			2
	Kazan, 1437-1552		Aq Qoyunlu ← Safavids			8
	Astar Khan, 1446-1557		Timurids ← Ozbeg			2
	Giray Khan of Crimea, 1449-1792		Turks			6
	Qasimov, near Moscow, 1452-1681		Ramadan ← Ottomans			5
	Shibandis, N. Afghanistan, 1500-99		Mamluks, Burji ←			0
	Safavids, Persia, 1501-1765		Ottomans			2
	Emirs, Lebanon, 1506-1697					0
	Number of Concurrent Regimes:	20				
	Number of Regimes Ended:	8				
	Number of New Regimes:	3				
	Cumulative Number of Ruler Changes:	77				

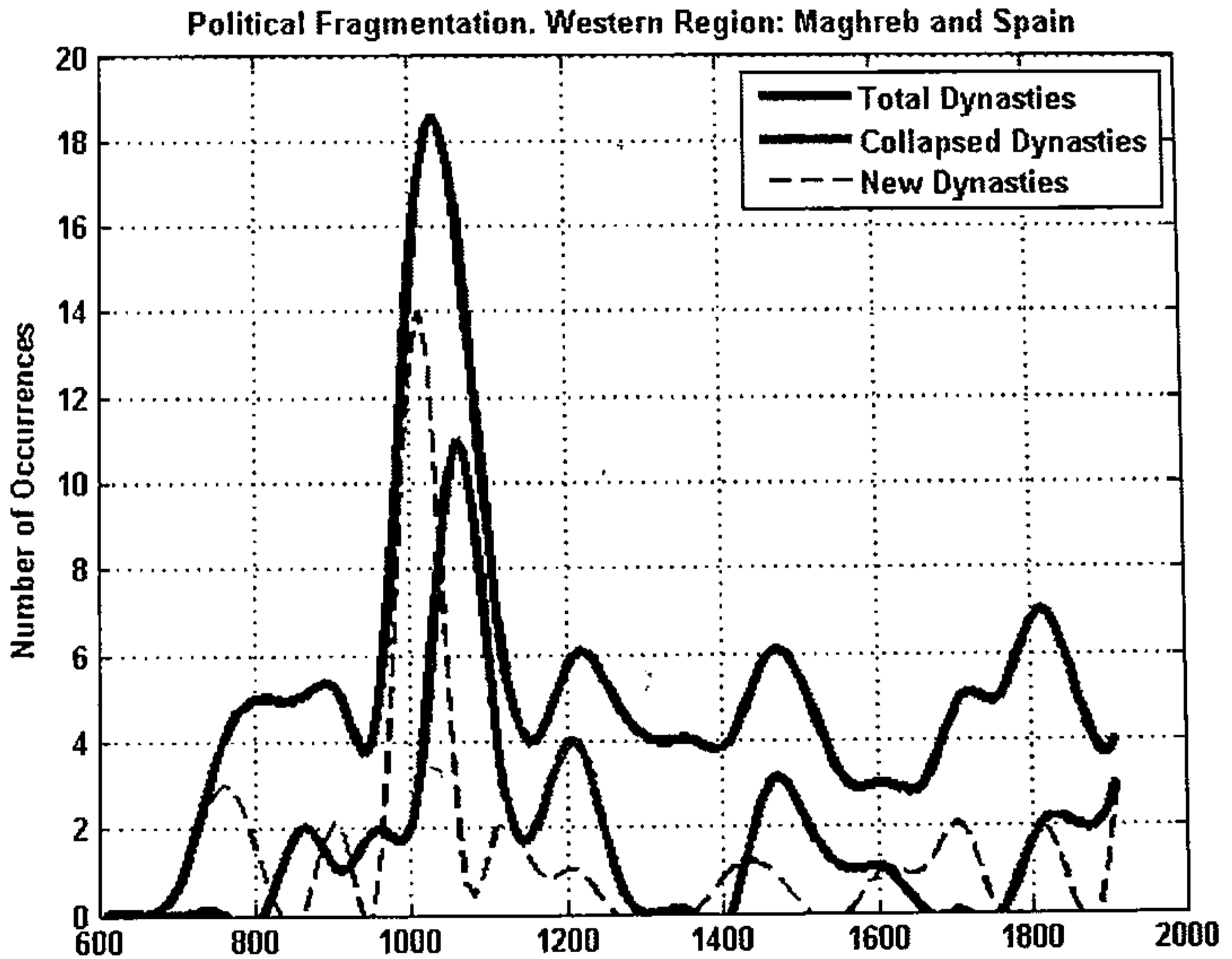
1511-1560	Alwadids (Ziyarids), 1236-1555		Alwadids ← Ottomans			6
	Abbasids (under Mamluks), 1261-1517		Abbasids ← Ottomans			1
	Ottomans, Turkey, 1281-1924					2
	Dulgadir, SE Anatolia, 1337-1521		Dulgadir ← Ottomans			
	Ramadan, Armenia, 1378-1517		Ramadan ← Ottomans			1
	Mamluks, Burji, Cairo, 1382-1517		Mamluks, Burji ←			10
	Mushashadids, W. Khuzistan, 1435-1924		Ottomans			7
	Kazan, 1437-1552					6
	Astar Khan, 1446-1557		Kazan ← Russia			5
	Giray Khan of Crimea, 1449-1792		Astar Khan ← Russia			7
	Qasimov, near Moscow, 1452-1681					1
	Shibandis, N. Afghanistan, 1500-99					3
	Safavids, Persia, 1501-1765					
	Emirs, Lebanon, 1506-1697					
Number of Concurrent Regimes:		14				
Number of Regimes Ended:		9				
Number of New Regimes:		0				
Cumulative Number of Ruler Changes:		49				
1561-1610	Ottomans, Turkey, 1281-1926					4
	Mushashadids, W. Khuzistan, 1435-1924					4
	Giray Khan of Crimea, 1449-1792	248	Shibandis ← Toqay	12	21	9
	Qasimov, near Moscow, 1452-1681		Timurids			4
	Shibandis, N. Afghanistan, 1500-99					5
	Safavids, Persia, 1501-1765					3
	Emirs, Lebanon, 1506-1697					1
	Toqay Timurids, 1599-1747					3
Number of Concurrent Regimes:		8				
Number of Regimes Ended:		1				
Number of New Regimes:		1				
Cumulative Number of Ruler Changes:		31				
1511-1660	Ottomans, Turkey, 1281-1926					6
	Mushashadids, W. Khuzistan, 1435-1924					7
	Giray Khan of Crimea, 1449-1792					9
	Qasimov, near Moscow, 1452-1681					4
	Safavids, Persia, 1501-1765					3
	Emirs, Lebanon, 1506-1697					1
	Toqay Timurids, 1599-1747					3
Number of Concurrent Regimes:		7				
Number of Regimes Ended:		0				
Number of New Regimes:		0				
Cumulative Number of Ruler Changes:		36				

1661-1710	Ottomans, Turkey, 1281-1926					4
	Mushashadids, W. Khuzistan, 1435-1924					4
	Giray Khan of Crimea, 1449-1792	145	Qasimov ← Russia	7	21	13
	Qasimov, near Moscow, 1452-1681					
	Safavids, Persia, 1501-1765		Emirs ← Shihabs,			2
	Emirs, Lebanon, 1506-1697		Lebanon			1
	Toqay Timurids, 1599-1747					2
	Shihabs, Lebanon, 1697-1842					2
	Number of Concurrent Regimes:		8			
Number of Regimes Ended:		2				
Number of New Regimes:		1				
Cumulative Number of Ruler Changes:		28				
1711-1760	Ottomans, Turkey, 1281-1926					3
	Mushashadids, W. Khuzistan, 1435-1924					6
	Giray Khan of Crimea, 1449-1792	272	Toqay Timurids ←	27	10	12
	Safavids, Persia, 1501-1765	60	Mangits	4	15	2
	Toqay Timurids, 1599-1747	43		6	7	4
	Shihabs, Lebanon, 1697-1842	163		10	16	2
	Sauds, Najd, Arabia, 1735-2007~	34		4	9	1
	Afshars (Nadir Shah), 1736-96					3
	Zarids, Persia, 1751-1794					1
	Mangits, Central Asia, 1753-1920					2
	Zands, Persia, 1760-1794					0
Number of Concurrent Regimes:		11				
Number of Regimes Ended:		1				
Number of New Regimes:		6				
Cumulative Number of Ruler Changes:		36				
1761-1810	Ottomans, Turkey, 1281-1926					4
	Mushashadids, W. Khuzistan, 1435-1924					4
	Giray Khan of Crimea, 1449-1792		Giray Khan ← Russia			13
	Safavids, Persia, 1501-1765		Safavids ← Nadir Shah			7
	Shihabs, Lebanon, 1697-1842		Durrani			2
	Sauds, Najd, Arabia, 1735-2007~					2
	Afshars (Nadir Shah), 1736-96		Afshars ← Qajars			1
	Zarids, Persia, 1751-1794		Zarids ← Qajars			2
	Mangits, Central Asia, 1753-1920					5
	Zands, Persia, 1760-1794		Zands, Persia ← Qajars			4
	Gungrats, Khiva, 1770-1928	157		11	13.7	4
Qajars, Persia, 1779-1925	146		7	21	2	
Mings, Khokand, 1798-1876	78		13	6	2	

	Mohammad Ali, Egypt, 1805-1953	148		11	13	1
	Number of Concurrent Regimes: 13 Number of Regimes Ended: 5 Number of New Regimes: 4 Cumulative Number of Ruler Changes: 53					
1811-1860	Ottomans, Turkey, 1281-1926					1
	Mushashadids, W. Khuzistan, 1435-1924					1
	Shihabs, Lebanon, 1697-1842,		Shihabs ← Ottomans			1
	Sauds, Najd, Arabia, 1735-2007~					9
	Mangits, Central Asia, 1753-1920					4
	Gungrats, Khiva, 1770-1928					6
	Qajars, Persia, 1779-1925					2
	Mings, Khokand, 1798-1876					5
	Mohammad Ali, Egypt, 1805-1953					3
	Sharifs, Mecca, 1827-1925	98		10	10	5
Rashids, Najd, 1836-1921	85		7	14	3	
	Number of Concurrent Regimes: 11 Number of Regimes Ended: 1 Number of New Regimes: 2 Cumulative Number of Ruler Changes: 40					
1861-1910	Ottomans, Turkey, 1281-1926		Ottomans ← Republic			4
	Mushashadids, W. Khuzistan, 1435-1924		Mushashadids ←			4
	Sauds, Najd, Arabia, 1735-2007~		Pahlavi			10
	Mangits, Central Asia, 1753-1920					2
	Gungrats, Khiva, 1770-1928					3
	Qajars, Persia, 1779-1925					3
	Mings, Khokand, 1798-1876		Mings, Khokand ←			6
	Mohammad Ali, Egypt, 1805-1953		Russia			3
	Sharifs, Mecca, 1827-1925					5
	Rashids, Najd, 1836-1921					8
	Number of Concurrent Regimes: 10 Number of Regimes Ended: 3 Number of New Regimes: 0 Cumulative Number of Ruler Changes: 48					
1911-1960	Ottomans, Turkey, 1281-1926		Ottomans ← Republic			2
	Mushashadids, W. Khuzistan, 1435-1924		Mushashadids ←			2
	Sauds, Najd, Arabia, 1735-2007~		Pahlavi			2
	Mangits, Central Asia, 1753-1920		Mangits ← Russia			

	Gungrats, Khiva, 1770-1928 Qajars, Persia, 1779-1925 Pahlavi, Persia, 1925-1979 Mohammad Ali, Egypt, 1805-1953 Sharifs, Mecca, 1827-1925 Rashids, Najd, 1836-1921	54	Gungrats, Khiva ← Russia Qajars ← Pahlavi Mohammad Ali ← Republic Sharifs, Mecca ← Sauds Rashids, Najd ← Sauds	2	27	1 4 3
	Number of Concurrent Regimes:	10				
	Number of Regimes Ended:	8				
	Number of New Regimes:	1				
	Cumulative Number of Ruler Changes:	14				
1961-2006	Sauds, Najd, Arabia, 1735-2007~ Pahlavi, Persia, 1925-1979		Pahlavi ← Republic			3 1
	Number of Concurrent Regimes:	2				
	Number of Regimes Ended:	1				
	Number of New Regimes:	0				
	Cumulative Number of Ruler Changes:	4				

b. Western Region (Spain and North Africa)



	Dynastic Regimes	Duration Years	End of Dynastic Regime	Total # of Rulers	Average Duration / Ruler	# of Ruler Changes (50-year Period)
632-661						
661-710						
711-760	Umayyads, Cordoba, 756-1031	275		23	11.95	1
	Number of Concurrent Regimes:	1				
	Number of Regimes Ended:	0				
	Number of New Regimes:	1				
	Cumulative Number of Ruler Changes:	1				
761-810	Umayyads, Cordoba, 756-1031					2
	Kharaji Rustomids, North Africa, 777-909	132		10	13.2	2
	Idrisids, Alids of Morocco, 789-917	128		9	14.2	3
	Aghlabids(Khorasan), Kairouan+Sicily, 800-909	109		11	10	1
	Number of Concurrent Regimes:	4				
	Number of Regimes Ended:	0				
	Number of New Regimes:	3				
	Cumulative Number of Ruler Changes:	8				
811-860	Umayyads, Cordoba, 756-1031					2
	Kharaji Rustomids, North Africa, 777-909					1
	Idrisids, Alids of Morocco, 789-926					3
	Aghlabids (Khorasan), Qayrawan, 800-909	154		11	14	5
	Midrardids, E. Morocco, 823-977					1
	Number of Concurrent Regimes:	5				
	Number of Regimes Ended:	0				
	Number of New Regimes:	1				
	Cumulative Number of Ruler Changes:	12				
861-910	Umayyads, Cordoba, 756-1031					1
	Kharaji Rustomids, North Africa, 777-909		Rustomids ← Fatimids, Egypt			7
	Idrisids, Alids of Morocco, 789-926					3

	Aghlabids(Khorasan), Q+Sicily, 800-909 Midrardids, E. Morocco, 823-977		Aghlabids ← Fatimids, Egypt			5 4
	Number of Concurrent Regimes: 5 Number of Regimes Ended: 2 Number of New Regimes: 0 Cumulative Number of Ruler Changes: 20					
911-960	Umayyads, Cordoba, 756-1031 Idrisids, Alids of Morocco, 789-926 Midrardids, E. Morocco, 823-977 Fatimids of Morocco, 917-985 Kalbids of Sicily, 948-1053	68 105	Idrisids ← Fatimids	4 9	17 11.6	1 4 5 3 2
	Number of Concurrent Regimes: 5 Number of Regimes Ended: 1 Number of New Regimes: 2 Cumulative Number of Ruler Changes: 15					
961-1010	Umayyads, Cordoba, 756-1031 Midrardids, E. Morocco, 823-977 Fatimids of Morocco, 917-985 Kalbids of Sicily, 948-1053 Zirids, Berber, Algeria, 972-1152	180	Midrardids ← Berber Tribes Fatimids ← Berbers	13	13.8	5 1 1 5 3
	Number of Concurrent Regimes: 5 Number of Regimes Ended: 2 Number of New Regimes: 1 Cumulative Number of Ruler Changes: 15					
1011-1060	Umayyads, Cordoba, 756-1031 Kalbids of Sicily, 948-1053 Zirids, Berber, Algeria, 972-1152 Tujibids & Hudids, Zaragoza, 1010-1146 Hammudids, Malaga, 1014-1056 Hammadids, Tunisia, Algeria, 1015-1152 (After the Umayyad downfall in 1031, Spain tragically was split into thirty- nine Taafas [regional groups], until the arrival of the Almoravids in 1061). The major ones included. Aminids, Valencia, 1010-1102 Banu Khazrun, Arcos, 1012-1066	136 42 137 92 54	Umayyads ← Split up Kalbids ← Normans of Sicily Hammudids ← Hammadids	13 13 9 6 3	10.5 3.2 15.2 15.3 18	11 2 4 4 12 4 3 2

	Dhulnumids, Toledo, 1012-1085	64		2	32	1
	Tahirids, Murcia, 1012-1091	73		7	10.4	3
	Aftasids, Badajoz, 1012-1094	79		7	11.3	5
	Banu Samadh, Almeria, 1013-1091	82		5	16.4	3
	Zirids Granada, 1013-1090	78		7	11	6
	Abbadids, Seville, 1023-1091	77		4	19	3
	Banu Birzal, Carmona, 1023-1067	58		3	19	2
	Jahwarids, Cordoba, 1031-1069	44		3	14.7	2
		38		3	13	1
Number of Concurrent Regimes: 17						
Number of Regimes Ended: 3						
Number of New Regimes: 14						
Cumulative Number of Ruler Changes: 66						
1061-1110	Zirids, Berber, Algeria, 972-1152					4
	Hammadids, Tunisia, E. Alg, 1015-1152					4
	Tujibids & Hudids, Zaragoza, 1010-1146					7
	Taaifas:		Aminids ← Almoravids			3
	Aminids, Valencia, 1010-1102		Banu Khazrun ←			1
	Banu Khazrun, Arcos, 1012-1066		Addadids			1
	Banu Mujahid, Denia, 1012-1076		Banu Mujahid ←			4
	Dhulnumids, Toledo, 1012-1085		Hudids			2
	Tahirids, Murcia, 1012-1091		Dhulnumids ← Alfonso			2
	Aftasids, Badajoz, 1012-1094		,Castile			1
	Banu Samadh, Almeria, 1013-1091		Tahirids ← Almoravids			1
	Zirids Granada, 1013-1090		Aftasids ← Almoravids			1
	Abbadids, Seville, 1023-1091		Banu Samadh ←			1
	Banu Birzal, Carmona, 1023-1067		Almoravids			1
	Jahwarids, Cordoba, 1031-1069		Zirids ← Almoravids			
			Abbadids ←			
Almoravids, Spain, 1061-1147	86	Almoravids	6	14.3	3	
Almoravids, Murcia, 1091-1172	81	Banu Birzal ←	4	20	1	
		Abbadids				
		Jahwarids ← Hudids				
Number of Concurrent Regimes: 16						
Number of Regimes Ended: 11						
Number of New Regimes: 2						
Cumulative Number of Ruler Changes: 37						

1111-1160	Zirids, Berber, Algeria, 972-1152		Zirids ← Almoravids			1
	Tujibids & Hudids, Zaragoza, 1010-1146		Tujibids & Hudids ←			2
	Hammadids, Tunisia, E. Alg, 1015-1152		Christian	12	12.4	1
	Almoravids, Spain, 1061-1147		Hammadids ←	6	12.8	3
	Almoravids, Murcia, 1091-1172		Almohads			2
Almohads, Maghreb, Spain, 1120-1269	149	Almoravids ←			1	
Banu Ghaniya, Balearic Islands 1126-1203	77	Almohads			3	
Number of Concurrent Regimes:		7				
Number of Regimes Ended:		4				
Number of New Regimes:		2				
Cumulative Number of Ruler Changes:		13				
1161-1210	Almoravids, Murcia, 1091-1172		Murcia ← Almohads			1
	Almohads, Maghreb, Spain, 1120-1269					3
	Banu Ghaniya, Balearic Islands 1126-1203		Banu Ghaniya ←			3
	Almohads, Balearic Islands, 1203-1230	27	Almohads	1	27	0
Number of Concurrent Regimes:		4				
Number of Regimes Ended:		2				
Number of New Regimes:		1				
Cumulative Number of Ruler Changes:		7				
1211-1260	Almohads, Maghreb, Spain, 1120-1269					7
	Almohads, Balearic Islands, 1203-1230		Balearic Islands ←			1
	Merinids, Morocco, 1217-1465	248	Christians	29	8.5	4
	Hafsids, Tunisia, 1228-1574	346		29	11.9	2
	Nasirids, Granada, 1230-1492	263		31	8.7	1
	Wadids, W. Algeria, 1236-1555	319		30	10.6	1
Number of Concurrent Regimes:		6				
Number of Regimes Ended:		1				
Number of New Regimes:		4				
Cumulative Number of Ruler Changes:		16				
1261-1310	Almohads, Maghreb, Spain, 1120-1269		Almohads ← Christian			1
	Merinids, Morocco, 1217-1465		Spain			4
	Hafsids, Tunisia, 1228-1574					8
	Nasirids, Granada, 1230-1492					3
	Wadids, W. Algeria, 1236-1555					3
Number of Concurrent Regimes:		5				
Number of Regimes Ended:		1				
Number of New Regimes:		0				
Cumulative Number of Ruler Changes:		19				

1311-1360	Merinids, Morocco, 1217-1465					5
	Hafsids, Tunisia, 1228-1574					8
	Nasirids, Granada, 1230-1492					6
	Wadids, W. Algeria, 1236-1555					5
	Number of Concurrent Regimes:	4				
Number of Regimes Ended:	0					
Number of New Regimes:	0					
Cumulative Number of Ruler Changes:	24					
1361-1410	Merinids, Morocco, 1217-1465					14
	Hafsids, Tunisia, 1228-1574					3
	Nasirids, Granada, 1230-1492					3
	Wadids, W. Algeria, 1236-1555					6
	Number of Concurrent Regimes:	4				
Number of Regimes Ended:	0					
Number of New Regimes:	0					
Cumulative Number of Ruler Changes:	26					
1411-1460	Merinids, Morocco, 1217-1465					0
	Hafsids, Tunisia, 1228-1574					2
	Nasirids, Granada, 1230-1492					12
	Wadids, W. Algeria, 1236-1555					6
	Wattasids, Morocco, 1428-1549	121		9	13.5	3
Number of Concurrent Regimes:	4					
Number of Regimes Ended:	0					
Number of New Regimes:	1					
Cumulative Number of Ruler Changes:	23					
1461-1510	Merinids, Morocco, 1217-1465		Merinids ← Wattasids			1
	Hafsids, Tunisia, 1228-1574					4
	Nasirids, Granada, 1230-1492		Nasirids ← Christian Spain			6
	Wadids, W. Algeria, 1236-1555					11
	Wattasids, Morocco, 1428-1549					4
Sadids, Tunisia, 1510-1659	149		20	8	1	
Number of Concurrent Regimes:	6					
Number of Regimes Ended:	3					
Number of New Regimes:	1					
Cumulative Number of Ruler Changes:	27					
1511-1560	Hafsids, Tunisia, 1228-1574					4
	Wadids, W. Algeria, 1236-1555		Wadids ← Spain			7
	Wattasids, Morocco, 1428-1549					6

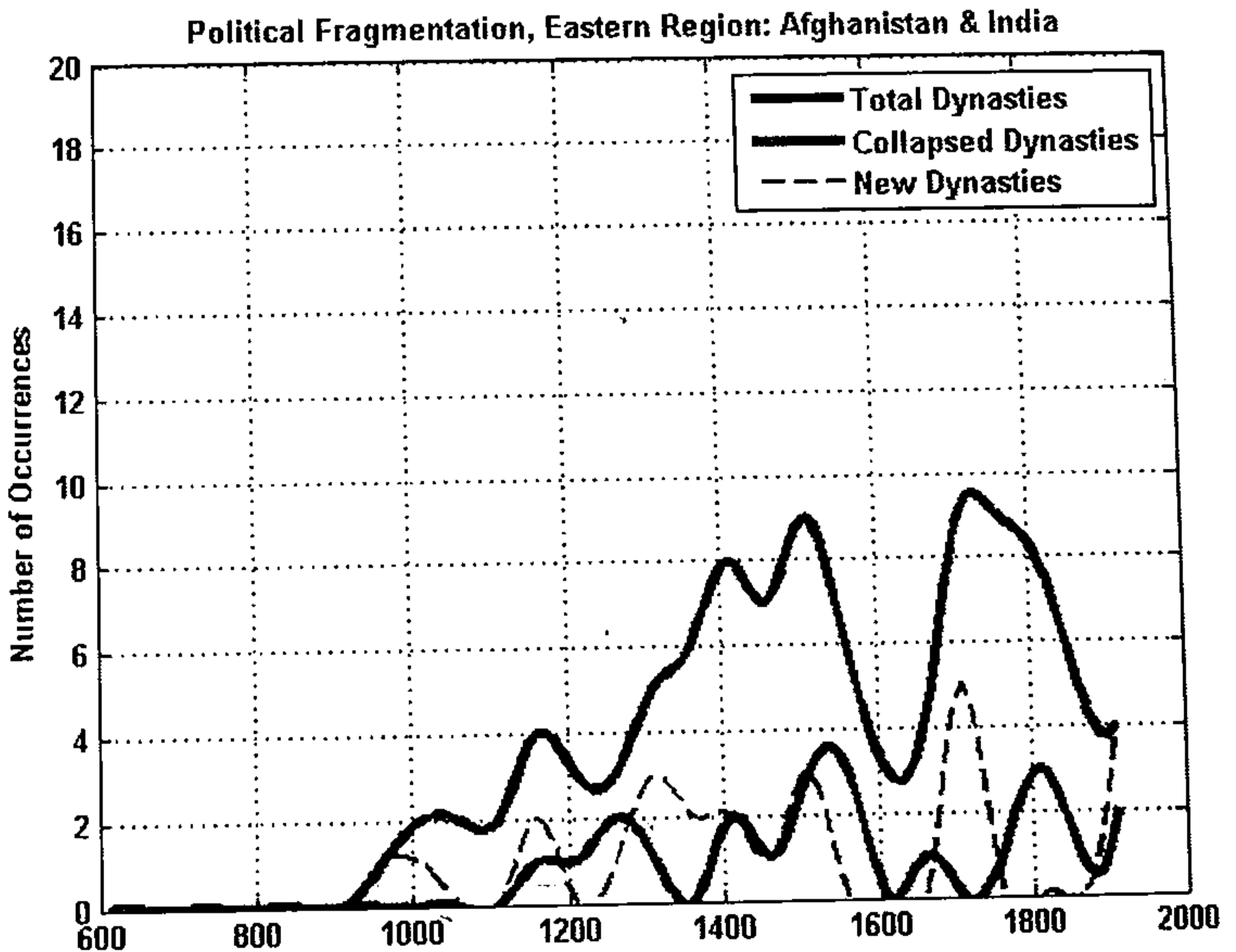
	Sadids, Tunisia, 1510-1659 Algeria, Ottoman Rule, 1517-1830	317	Wattasids ← Saddids, Tunisia			
	Number of Concurrent Regimes: 5 Number of Regimes Ended: 2 Number of New Regimes: 0 Cumulative Number of Ruler Changes: 20					
1561-1610	Hafsids, Tunisia, 1228-1574 Sadids, Tunisia, 1510-1659 Algeria, Ottoman Rule, 1517-1830		Hafsids ← Sadids			3 5
	Number of Concurrent Regimes: 3 Number of Regimes Ended: 1 Number of New Regimes: 0 Cumulative Number of Ruler Changes: 8					
1611-1660	Sadids, Tunisia, 1510-1659 Algeria, Ottoman Rule, 1517-1830 Filali Sharifs, Morocco, 1631-Present	376	Sadids ← Filali Sharifs	15	21	6 - 2
	Number of Concurrent Regimes: 3 Number of Regimes Ended: 1 Number of New Regimes: 1 Cumulative Number of Ruler Changes: 8					
1661-1710	Algeria, Ottoman Rule, 1517-1830 Filali Sharifs, Morocco, 1631-Present Husaynid Beys, Tunisia, 1705-1957	1 252		21	12	- 0 1
	Number of Concurrent Regimes: 3 Number of Regimes Ended: 0 Number of New Regimes: 1 Cumulative Number of Ruler Changes: 3					
1711-1760	Algeria, Ottoman Rule, 1517-1830 Filali Sharifs, Morocco, 1631-Present Husaynid Beys, Tunisia, 1705-1957 Qaramanlis, Tripoli, 1711-1835 Libya, Ottomans, 1750-1835	. . 124 85		6	20	- 2 3 3 -
	Number of Concurrent Regimes: 5 Number of Regimes Ended: 0 Number of New Regimes: 2 Cumulative Number of Ruler Changes: 8					

1761-1810	Filali Sharifs, Morocco, 1631-Present					4
	Algeria, Ottoman Rule, 1517-1830					-
	Husaynid Beys, Tunisia, 1705-1957					1
	Qaramanlis, Tripoli, 1711-1835					2
	Libya, Ottomans, 1750-1835					-
Number of Concurrent Regimes:		5				
Number of Regimes Ended:		0				
Number of New Regimes:		0				
Cumulative Number of Ruler Changes:		7				
1811-1860	Algeria, Ottoman Rule, 1517-1830		Algeria, Ottoman ←			-
	Filali Sharifs, Morocco, 1631-Present		France			2
	Husaynid Beys, Tunisia, 1705-1957	132		4	32	7
	Qaramanlis, Tripoli, 1711-1835	130	Libya, Ottomans			1
	Libya, Ottomans, 1750-1835		← Sanusi			2
	Algeria, France, 1830-1962					-
	Sanusi, Libya, 1839-1969					2
Number of Concurrent Regimes:		7				
Number of Regimes Ended:		2				
Number of New Regimes:		2				
Cumulative Number of Ruler Changes:		14				
1861-1910	Filali Sharifs, Morocco, 1631-Present					3
	Husaynid, Tunisia, France, 1705-1957		1881: Tunisia ← France			3
	Qaramanlis, Tripoli, 1711-1835		Qaramanlis ←			1
	Algeria, France, 1830-1962		Ottomans			-
	Sanusi, Libya, 1839-1969					1
Number of Concurrent Regimes:		5				
Number of Regimes Ended:		2				
Number of New Regimes:		0				
Cumulative Number of Ruler Changes:		8				

1911-1960	Filali Sharifs, Morocco, 1631-Present			5
	Husaynid, Tunisia, France, 1705-1957		Husaynid Beys ←	6
	Algeria, France, 1830-1962		Republic	-
	Sanusi, Libya, 1839-1969		Algeria, France ← Republic 1911: Sanusi, Libya ← Italy 1969: Libya ← Republic	1
Number of Concurrent Regimes: 4 Number of Regimes Ended: 3 Number of New Regimes: 3 Cumulative Number of Ruler Changes: 12				

c. Eastern Region

(Afghanistan, Indian Subcontinent, and Southeast Asia)



	Dynastic Regimes	Duration Years	End of Dynastic Regime	Total # of Rulers	Average Duration / Ruler	# of Ruler Changes (50-year Period)
632-661						
661-710						
711-760						
761-810						
811-860						
861-910						
911-960						
961-1010	Ghaznavids, Afghanistan, India, 976-1186	210		19	11	3
	Number of Concurrent Regimes: 1 Number of Regimes Ended: 0 Number of New Regimes: 1 Cumulative Number of Ruler Changes: 3					
1011-1060	Ghaznavids, Afghanistan, India, 976-1186					10
	Ghaurids, Afghanistan, India, 1010-1215	205		18	11.4	4
	Number of Concurrent Regimes: 2 Number of Regimes Ended: 0 Number of New Regimes: 1 Cumulative Number of Ruler Changes: 14					

1061-1110	Ghaznavids, Afghanistan, India, 976-1186					1
	Ghaurids, Afghanistan, India, 1010-1215					2
Number of Concurrent Regimes: 2 Number of Regimes Ended: 0 Number of New Regimes: 0 Cumulative Number of Ruler Changes: 3						
1111-1160	Ghaznavids, Afghanistan, India, 976-1186					5
	Ghaurids, Afghanistan, India, 1010-1215					3
Number of Concurrent Regimes: 2 Number of Regimes Ended: 0 Number of New Regimes: 0 Cumulative Number of Ruler Changes: 8						
1161-1210	Ghaznavids, Afghanistan, India, 976-1186		Ghaznavids ← Ghaurids			1
	Ghaurids, Afghanistan, India, 1010-1215					5
	Governors, Bengal, 1198-1576	378		57	7	5
	Slave Kings (Aybak) Delhi, 1206-1290	84		11	7.6	2
Number of Concurrent Regimes: 4 Number of Regimes Ended: 1 Number of New Regimes: 2 Cumulative Number of Ruler Changes: 13						
1211-1260	Ghaurids, Afghanistan, India, 1010-1215		Ghaurids ← Khwarizms			4
	Governors, Bengal, 1198-1576					14
Number of Concurrent Regimes: 3 Number of Regimes Ended: 1 Number of New Regimes: 0 Cumulative Number of Ruler Changes: 24						
1261-1310	Slave Kings (Aybak) Delhi, 1206-1290		Slave Kings ← Khiljis			3
	Governors, Bengal, 1198-1576		Governors, Bengal ←			6
Number of Concurrent Regimes: 3 Number of Regimes Ended: 2 Number of New Regimes: 1 Cumulative Number of Ruler Changes: 12						
	Khiljis, Delhi, 1290-1320	30	Merged	5	6	3

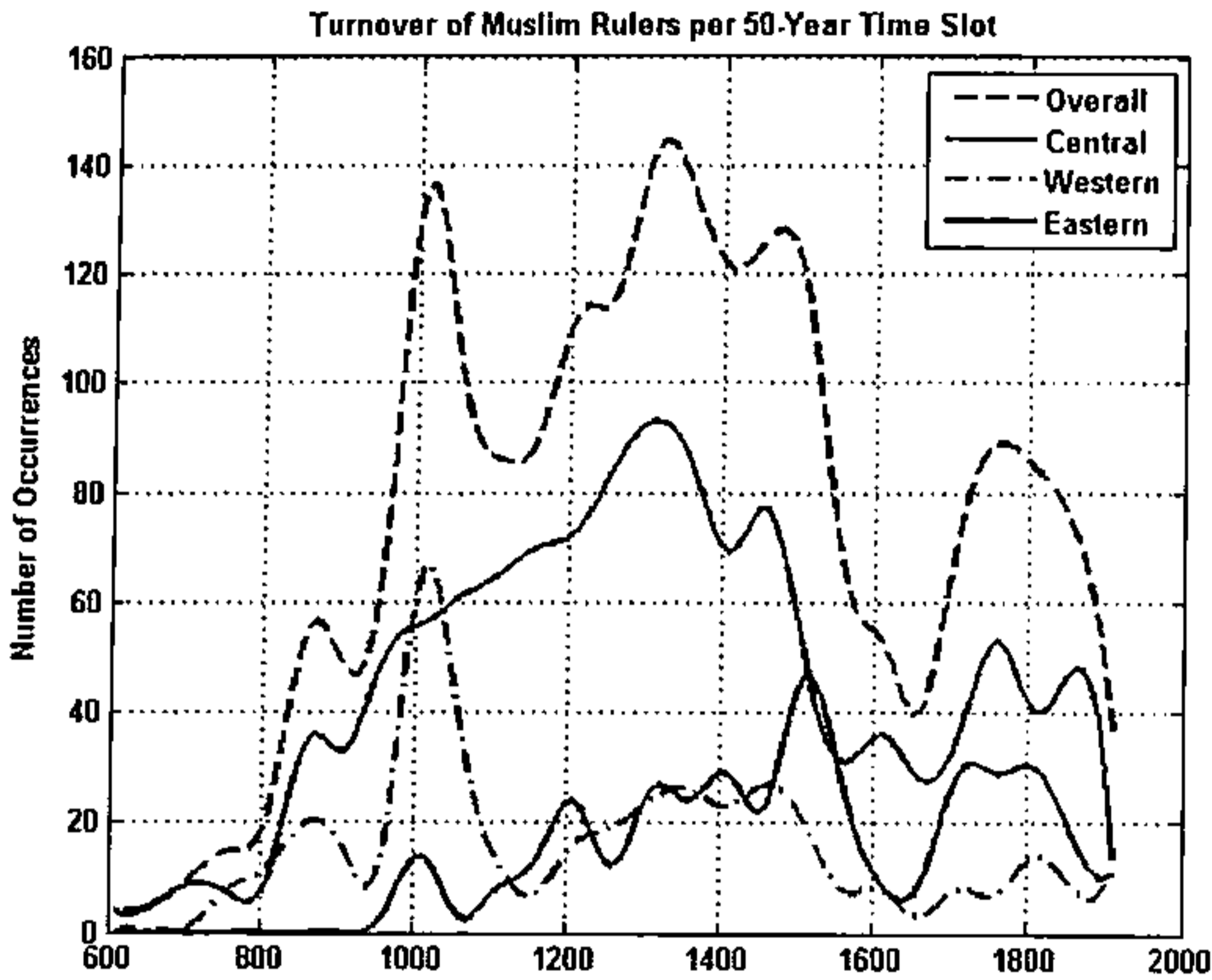
1311-1360	Governors, Bengal, 1198-1576					13
	Khiljis, Delhi, 1290-1320		Khiljis, Delhi ← Tughluqs			2
	Tughluqs, Delhi, 1320-1414	94		14	6.7	4
	Sultans, Kashmir, 1339-1588	249		14	18	4
	Bahmani, Deccan, 1346-1528	182		19	9.6	3
	Number of Concurrent Regimes: 5 Number of Regimes Ended: 1 Number of New Regimes: 3 Cumulative Number of Ruler Changes: 26					
1361-1410	Governors, Bengal, 1198-1576					2
	Tughluqs, Delhi, 1320-1414					9
	Sultans, Kashmir, 1339-1588					3
	Bahmani, Deccan, 1346-1528					6
	Sultans, Gujarat, 1403-1573	170		8	21	3
	Sultan, Malacca, 1403-1528	125		13	10	1
Number of Concurrent Regimes: 6 Number of Regimes Ended: 0 Number of New Regimes: 2 Cumulative Number of Ruler Changes: 24						
1411-1460	Governors, Bengal, 1198-1576					9
	Tughluqs, Delhi, 1320-1414		Tughluqs, Delhi ← Sayyids			1
	Sultans, Kashmir, 1339-1588					1
	Bahmani, Deccan, 1346-1528					3
	Sultans, Gujarat, 1403-1573					5
	Sayyids, Delhi, 1414-1451	37	Sayyids, Delhi ← Lodhis	4	9.2	4
	Lodhis, Delhi, 1451-1526	75		3	25	1
	Sultan, Malacca, 1403-1528					5
Number of Concurrent Regimes: 8 Number of Regimes Ended: 2 Number of New Regimes: 2 Cumulative Number of Ruler Changes: 29						
1461-1510	Governors, Bengal, 1198-1576					8
	Sultans, Kashmir, 1339-1588					6
	Bahmani, Deccan, 1346-1528					3
	Sultans, Gujarat, 1403-1573					0
	Sultan, Malacca, 1403-1528					4

	Lodhis, Delhi, 1451-1526 Sultan, Aceh, 1496-1903	407	Lodhis ← Mughals	34	12	
	Number of Concurrent Regimes: 7 Number of Regimes Ended: 1 Number of New Regimes: 1 Cumulative Number of Ruler Changes: 23					
1511-1560	Governors, Bengal, 1198-1576					7
	Sultans, Kashmir, 1339-1588					10
	Bahmani, Deccan, 1346-1528		Bahmani, Deccan ←			4
	Sultans, Gujarat, 1403-1573		Mughals			8
	Sultan, Malacca, 1403-1528		Sultan, Malacca ←			3
	Sultan, Aceh, 1496-1903		Portuguese			2
	Mughals, India, 1526-1858	332		22	15	3
	Sultan, Brunei, 1521-Present	586		30	19.5	5
	Suris, Delhi, 1540-1555	15	Suris ← Mughals	5	3	5
	Number of Concurrent Regimes: 9 Number of Regimes Ended: 3 Number of New Regimes: 3 Cumulative Number of Ruler Changes: 47					
1561-1610	Governors, Bengal, 1198-1576		Governors,			4
	Sultans, Kashmir, 1339-1588		Bengal ← Mughals			6
	Sultans, Gujarat, 1403-1573		Sultans, Kashmir ←			2
	Sultan, Aceh, 1496-1903		Mughals			9
	Mughals, India, 1526-1858		Sultans, Gujarat ← Mughals			1
	Sultan, Brunei, 1521-Present					4
		Number of Concurrent Regimes: 6 Number of Regimes Ended: 3 Number of New Regimes: 0 Cumulative Number of Ruler Changes: 26				
1611-1660	Sultan, Aceh, 1496-1903					2
	Mughals, India, 1526-1858					2
	Sultan, Brunei, 1521-Present					5
		Number of Concurrent Regimes: 3 Number of Regimes Ended: 0 Number of New Regimes: 0 Cumulative Number of Ruler Changes: 9				

1661-1710	Sultan, Aceh, 1496-1903					5
	Sultan, Brunei, 1521-Present					2
	Mughals, India, 1526-1858					1
	Nawab Nizam, Bengal, 1704-1858	154		8	19	1
	Number of Concurrent Regimes:	4				
	Number of Regimes Ended:	1				
	Number of New Regimes:	0				
	Cumulative Number of Ruler Changes:	9				
1711-1760	Sultan, Aceh, 1496-1903					5
	Sultan, Brunei, 1521-Present					1
	Mughals, India, 1526-1858	134		12	11	9
	Nawab Nizam, Bengal, 1704-1858	224		10	22	6
	Nawab, Oudh, 1722-1856	226		27	8	3
	Nizam, Hyderabad, 1724-1948	194		13	15	4
	Durranis, Kabul, 1747-1973	39		2	19	1
	Sultan, Jogjakarta, 1755-1949					1
	Hyder Ali, Tipu Sultan, Mysore, 1760-99					0
	Number of Concurrent Regimes:	9				
	Number of Regimes Ended:	0				
	Number of New Regimes:	5				
	Cumulative Number of Ruler Changes:	29				
761-1810	Sultan, Aceh, 1496-1903					4
	Sultan, Brunei, 1521-Present					4
	Mughals, India, 1526-1858		Hyder Ali, Tipu Sultan ←			4
	Nawab Nizam, Bengal, 1704-1858		British			1
	Nawab, Oudh, 1722-1856					3
	Nizam, Hyderabad, 1724-1948					2
	Durranis, Kabul, 1747-1973					7
	Sultan, Jogjakarta, 1755-1949					2
	Hyder Ali, Tipu Sultan, Mysore, 1760-99					2
	Number of Concurrent Regimes:	9				
	Number of Regimes Ended:	1				
	Number of New Regimes:	0				
	Cumulative Number of Ruler Changes:	29				

1811-1860	Sultan, Aceh, 1496-1903 Sultan, Brunei, 1521-Present Mughals, India, 1526-1858 Nawab Nizam, Bengal, 1704-1858 Nawab, Oudh, 1722-1856 Nizam, Hyderabad, 1724-1948 Durranis, Kabul, 1747-1973 Sultan, Jogjakarta, 1755-1949		Mughals ← British Nawab, Bengal ← British Nawab, Oudh ← British			
	Number of Concurrent Regimes: 8 Number of Regimes Ended: 3 Number of New Regimes: 0 Cumulative Number of Ruler Changes: 30					
1861-1910	Sultan, Aceh, 1496-1903 Sultan, Brunei, 1521-Present Nizam, Hyderabad, 1724-1948 Durranis, Kabul, 1747-1973 Sultan, Jogjakarta, 1755-1949		Sultan, Aceh ← Dutch 1888: Brunei ← British Prot.			3 3 2 8 1
	Number of Concurrent Regimes: 5 Number of Regimes Ended: 1 Number of New Regimes: 0 Cumulative Number of Ruler Changes: 17					
1911-1960	Nizam, Hyderabad, 1724-1948 Durranis, Kabul, 1747-1973 Sultan, Brunei, 1521-Present Sultan, Jogjakarta, 1755-1949		Nizam, Hyderabad ← India (Durranis, Kabul ← Republic) 1984: Brunei ← End of Prot. Sultan, Jogjakarta ← Republic			1 5 3 2
	Number of Concurrent Regimes: 4 Number of Regimes Ended: 2 Number of New Regimes: 4 Cumulative Number of Ruler Changes: 11					

Summary Tabulation



A. Central Region

(Egypt, Palestine, Syria, Anatolia, Southeast Europe, Iraq, Persia, and Arabia)

Dynastic Regimes	Duration Years	End of Dynastic Regime	Total #of Rulers	Average Duration / Ruler
Caliphate-i-Rashida, 632-660	32	End of Elected Khalifahs	4	6.3
Umayyads, Damascus, 661-750	89	Umayyads ← Abbasids	14	6.3
Abbasids, Iraq, 750-1258	508	Abbasids ← Mongols	37	13.7
Justanids, Caspian Sea, 791-972	181	Justanids ← Seljuqs Sawtagin	11	16.5
Samanids (Governors), Persia, 819-1005	186	Samanids ← Qarakhanids	11	17
Tahirids (Governors) Persia, 821-891	70	Tahirids ← Saffarids	5	10.5
Saffarids, Persia, 867-914	57	Saffarids ← Samanids	5	11.4
Tulunids, Egypt (G), 868-905	37	Tulunids ← Abbasids	5	7.4
Hashimids, Daghistan, 869-1075	206	Hashimids ← Seljuqs	28	7.4
Hamadanids, Mosul, 906-1004	98	Hamadanids ← Uqlaydis	7	14
Fatimids, Egypt, 909-1171	262	Fatimids ← Ayyubids Saladin	15	17.5

Rawadids, Kurds, Tabriz, 925-1071	146	Rawadids ← Seljuqs	6	2.1
Ziyarids, Tabaristan, 931-1090	159	Ziyarids ← Buyids & Seljuqs	10	15.7
Ikhshidids, Egypt, S. Syria, 935-969	34	Ikhshidids ← Fatimids	5	6.5
Musafirids, Daylam, 941-1062	121	Musafirids ← Ismailis	6	20.2
Buyids, Fars (Baghdad), 945-1055	110	Buyids ← Seljuqs	11	10.0
Shaddadids, E. Armenia, 951-1075	124	Shaddadids ← Seljuqs	9	13.6
Mazyadids, C. Iraq, 961-1150	189	Mazyadids ← Abbasids	9	21.0
Hasanuyids, Kurdistan, 961-1015	54	Hasanuyids ← Anazids	5	10.7
Mirwanids, Diyarbakir, 983-1085	102	Mirwanids ← Seljuqs	5	20.4
Numyarids, Harra, Syria, 990-1081	91	Numyarids ← Seljuqs	4	23.3
Anazids, Kurdistan, 991-1150	51	Anazids ← Seljuqs	8	6.4
Uqaylids, Mosul, 992-1096	104	Uqaylids (1096) ← Seljuqs	8	13.0
Kukuyids, Kurdistan, 1008-1141	133	Kukuyids ← Atabegs of Yazd	5	27.0
Qarakhanids, Western, 1020-1212	192	Qarakhanids ← Khwarizms	25	7.7
Mirsadids, NC Syria, 1024-1080	56	Mirsadids (1080) ← Uqaylids	9	6.1
Nasirids, Sistan, 1030-1225	195	Nasirids, Sistan ← Khwarizms	16	12.2
Great Seljuqs, Iraq, 1040-1194	154	Great Seljuqs ← Khwarizms	18	8.6
Seljuqs, Rum, Konya, 1077-1307	230	Seljuqs Rum Konya ← Mongols	27	8.5
Khwarizm Shahi, 1077-1231	154	Khwarizms ← Mongols	8	19.3
Nizaris, Ismailis (Assassins), 1090-1256	166	Nizaris ← Mongols	8	20.7
Shahi Arminds, Turkistan, 1100-1207	107	Shahi Arminds ← Ayyubids	10	10.7
Saltuqids, E. Anatolia, 1102-1202	100	Saltuqids ← Seljuqs, Rum	8	12.5
Danishmands, E. Anatolia, 1104-1174	70	Danishmands ← Seljuqs, Rum	8	8.7
Burids, Damascus, 1104-1154	51	Burids ← Zengids	6	8.5
Baduspanids, Caspian Sea, 1109-1400	291	Baduspanids ← Timurids	21	13.8
Ahmadalis, Q Sulafa Khatun, 1122-1209	87	Ahmadalis ← Ildiguzids	9	9.8
Zengids, Mosul, Aleppo, 1127-1251	124	Zengids ← Ayyubids	9	13.8
Atabeg, Yazd, 1141-1297	156	Atabegs ← Mongols	9	17.3
Mengujekids, N. Anatolia, 1142-1228	86	Mengujekids ← Seljuqs, Rum	5	17.2
Ildiguzids, Azerbaijan, 1145-1225	80	Ildiguzids ← Khwarizms	6	13.3
Salghurids, Fars, 1148-1282	134	Salghurids ← Mongols, Ilkhans	11	12.2
Hazaraspids, Luristan, 1148-1424	276	Hazaraspids ← Timurids	17	16.2
Ayyubids, Egypt, 1169-1252	83	Ayyubids ← Mamluks	9	9.2
Artughids, N. Iraq, 1185-1234	49	Artughids ← Seljuqs	4	12.3
Qutluqkhanids, Kirman, 1222-1307	85	Qutluqkhanids ← Mongols	9	9.4
Choban, Qastamuni, Anatolia, 1227-1309	72	Choban ← Jandar, Isfandiyar	4	18.0
Atabegs of Aleppo, 1234-1262	28	Atabegs ← Mongols	4	7.0
Mehrabandis, Sistan, 1236-1501	265	Mehrabandis ← Safavids	15	17.0

Alwadids (Ziyarids), 1236-1555	319	Alwadids (Ziyarids) ← Ottomans	29	11
Bawandids, Amul, 1238-1349	111	Bawandids ← Turks	8	14
Kurts, Khorasan, 1245-1389	144		8	18
Mamluks, Bahri, Nile, 1250-1390	140	Mamluk Bahri ← Mamluks Burji	35	4
Qaramanids, Anatolia, 1256-1475	219	Qaramanids ← Ottomans	17	12.9
Ilkhanids, Mongols, 1256-1388 (Muslim from 1295 onward)	132	Ilkhanids ← Timurids	14	9.4
Inanj, SW Anatolia, 1261-1369	108	Inanj ← Germiyan	6	18
Abbasids (under Mamluks), 1261-1517	256	Abbasids, Mamluks ← Ottomans	22	11.6
Sahib Ata, WC Anatolia, 1271-1341	70	Sahib Ata ← Germiyan	3	23.3
Parwana, Black Sea area, 1277-1322	45	Parwana ← Jander, Isfandiar	3	15
Menteshe, SW Anatolia, 1280-1391	111	Menteshe ← Ottomans	5	22.2
Ottomans, Turkey, 1281-1512	231	Ottomans ← Republic	13	17.8
<i>Total Rule: 1281-1924 = 643 y, 39 rulers</i>	<i>643</i>	<i>(Mustafa Kemal)</i>	<i>39</i>	<i>16.5</i>
Jander, Isfandria, Black Sea, 1292-1393	101	Jander, Isfandria ← Ottomans	7	14.4
Beys, Alanya, S. Anatolia, 1293-1471	178	Beys, Alanya ← Ottomans	7	25.4
Qarasi, SW Anatolia, 1297-1346	49	Qarasi ← Ottomans	4	12.2
Germiyan, SW Anatolia, 1299-1390	91	Germiyan ← Ottomans	4	25
Hamid & Tekke, WC Anatolia, 1301-1393	92	Hamid & Tekke ← Ottomans	7	13.1
Aydin, W. Anatolia, 1308-1390	82	Aydin ← Ottomans	4	20.5
Saru Khan, W. Anatolia, 1313-1390	77	Saru Khan ← Ottomans	4	19.2
Muzaffarids, Khorasan, 1314-1393	79	Muzaffarids ← Timurids	5	16
Injuids, Khorasan, 1325-1353	28	Injuids ← Muzaffarids	4	7
Eretna, NE Anatolia, 1336-1380	44	Eretna ← Qadi Burhanuddin	4	11
Sarbadarids, Khorasan, 1337-1386	49	Sarbadarids ← Timurids	12	4
Dulqadir, SE Anatolia, 1337-1521	184	Dulqadir ← Ottomans	11	16.7
Jalayirids, Azerbaijan, 1340-1432	102	Jalayirids ← Qara Qoyunlu	11	9.3
Taj al-Din, Black Sea, 1348-1398	50	Taj al-Din ← Ottomans	4	12.5
Qara Qoyunlu, E. Armenia, Iraq, 1351-1468	117	Qara Qoyunlu ← Aq Qoyunlu	12	9.8
Aq Qoyunlu, Azerbaijan, 1360-1508	148	Aq Qoyunlu ← Safavids	17	8.7
Timurids, C. Asia, E. Europe, 1370-1506	136	Timurids ← Ozbeg Turks	12	11.3
Ramadan, Armenia, 1378-1516	138	Ramadan ← Safavids	10	13.8
Qadi Burhanuddin, 1380-1392	12	Qadi Burhanuddin ← Ottomans	2	6
Mamluks, Burji, Cairo, 1382-1517	135	Mamluks, Burji ← Ottomans	28	4.8
Mushashadids, W. Khuzistan, 1435-1514	79	Mushashadids ← Safavids	4	20
Kazan, Russia, 1437-1532	95	Kazan ← Czarist Russia	21	4.5
Astar Khan, Russia, 1446-1557	111	Astar Khan ← Czarist Russia	8	14
Giray Khan of Crimea, 1449-1792	343	Giray Khan ← Czarist Russia	70	4.9

Qasimov, near Moscow, 1452-1681	229	Qasimov ← Czarist Russia	16	14
Shibandis, N. Afghanistan, 1500-99	99	Shibandis ← Toqay Timurids	12	8
Safavids, Persia, 1501-1765	264	Safavids ← Nadir Shah Durrani	18	15
Emirs, Lebanon, 1506-1697	191	Emirs ← Shihab, Lebanon	6	31
Toqay Timurids, 1599-1747	248	Toqay Timurids ← Mangits	12	21
Shihabs, Lebanon, 1697-1842	145	Shihabs ← Ottomans	7	21
Sauds, Najd, Arabia, 1735-2007~	272	Still in power	27	10
Sharids, Persia, 1736-1796	60	Sharids ← Qajars	8	7.5
Afshars (Nadir Shahis), 1736-60	24	Afshars (Nadir Shahis) ← Durranis	4	6
Zarids, Persia, 1751-1794	43	Zarids ← Qajars	6	7
Mangits, Central Asia, 1753-1920	163	Mangits ← Russia	10	16
Gungrats, Khiva, 1770-1928	157	Gungrats, Khiva ← Russia	11	13.7
Qajars, Persia, 1779-1925	146	Qajars ← Pahlavi	7	21
Mings, Khokand, 1798-1876	78	Mings, Khokand ← Russia	13	6
Sharifs, Mecca, 1827-1925	98	Sharifs, Mecca ← Saudis	10	10
Rashids, Najd, 1836-1921	85	Rashids, Najd ← Saudis	7	14
Syria & Lebanon		16th Century-1916: Ottomans 1916-44: French Protectorate 1944: Republic of Syria 1946: Republic of Lebanon		
Egypt, 1805-1953	148	1882: British Control 1914: British Protectorate 1922: Nominal Independence 1953: Republic	6	13
Iraq, 1535-1958	423	1535-1609: Under Ottomans 1609-32: Under Safavids of Iran 1632-1914: Mamluks, Ottomans 1914-47: Under British Rule 1932-58: Hashemite Kingdom 1958 ← Republic		
Gulf States		Up to 1793: Under Muslim rule 1853-1971: British Protectorate 1961: State of Kuwait 1971: States of United Arab Emirates, Bahrain, Qatar, and Oman		
Pahlavi, Iran, 1925-1979	54	1941: British & Russian invasion. 1953: Coup against Mossadegh with US involvement. 1979: Republic	2	27

B. Western Region

(Spain and Maghreb)

Dynastic Regimes	Duration Years	End of Dynastic Regime	Total # of Rulers	Average Duration / Ruler
Umayyads, Cordoba, 756-1031	275	Fatimids ← Berbers	23	11.95
Kharaji Rustomids, North Africa, 777-909	132	Kharaji Rustomids ← Fatimids	10	13.2
Idrisids, Alids of Morocco, 789-926	128	Idrisids ← Fatimids	9	14.2
Aghlabids (Khorasan), Qayrawan, 800-909	109	Aghlabids ← Fatimids	11	10
Midrardids, E. Morocco, 823-977	154	Midrardids ← Berber Tribes	11	14
Fatimids of Morocco, 917-985	68	Fatimids ← Berbers	4	17
Kalbids of Sicily, 948-1053	105	Kalbids ← Normans of Sicily	9	11.6
Zirids, Berber, Algeria, 972-1152	180	Zirids ← Almoravids	13	13.8
Tujibids & Hudids, Zaragoza, 1010-1146	136	Tujibids & Hudids ← Christian	13	10.5
Hammudids, Malaga, 1014-1056	42	Hammudids ← Hammadids	13	3.2
Hammadids, Tunisia, E. Alg, 1015-1152	137	Hammadids ← Almohads	9	15.2
Aminids, Valencia, 1010-1102	92	Aminids ← Almoravids	6	15.3
Banu Khazrun, Arcos, 1012-1066	54	Banu Khazrun ← Abbadids	3	18
Banu Mujahid, Denia, 1012-1076	64	Banu Mujahid ← Hudids	2	32
Dhulnumids, Toledo, 1012-1085	73	Dhulnumids ← Alfonso, Castile	7	10.4
Tahirids, Murcia, 1012-1091	79	Tahirids ← Almoravids	7	11.3
Aftasids, Badajoz, 1012-1094	82	Aftasids ← Almoravids	5	16.4
Banu Samadh, Almeria, 1013-1091	78	Banu Samadh ← Almoravids	7	11
Zirids Granada, 1013-1090	77	Zirids ← Almoravids	4	19
Abbadids, Seville, 1023-1091	58	Abbadids ← Almoravids	3	19
Banu Birzal, Carmona, 1023-1067	44	Banu Birzal ← Abbadids	3	14.7
Jahwarids, Cordoba, 1031-1069	38	Jahwarids ← Hudids	3	13
Almoravids, Spain, 1061-1147	86	Almoravids ← Almohads	6	14.3
Almoravids, Murcia, 1091-1172	81	Almoravids ← Almohads	4	20
Almohads, Maghreb, Spain, 1120-1269	149	Almohads ← Christian Spain	12	12.4
Banu Ghaniya, Balearic Islands 1126-1203	77	Banu Ghaniya ← Almohads	6	12.8
Almohads, Balearic Islands, 1203-1230	27	Balearic Islands ← Christians	1	27
Merinids, Morocco, 1217-1465	248	Merinids ← Wattasids	29	8.5

Hafsids, Tunisia, 1228-1574	346		29	11.9
Nasirids, Granada, 1230-1492	263	Nasirids ← Christian Spain	31	8.7
Wadids, W. Algeria, 1236-1555	319	Wadids ← Christian Spain	30	10.6
Wattasids, Morocco, 1428-1549	121	Wattasids ← Sadids	9	13.5
Sadids, Tunisia, 1510-1659	149	Sadids ← Filali Sharifs, Morocco	20	7.5
Ottomans, Algeria, 1517-1830	317	Ottomans, Algeria ← France		
Filali Sharifs, Morocco, 1631-2007	376	1830: French Influence 1906: French Protectorate 1956: End of French Protectorate	15	25
Husaynid Beys, Tunisia, 1705-1957	252	1881: Husaynid Beys ← France 1957: Husaynid Beys ← Republic	21	12
Qaramanlis, Tripolitania, 1711-1835	124	Qaramanlis ← Ottomans	6	20
Ottomans, Libya, 1750-1835	85	Ottomans, Libya ← Sanusi		
Algeria, France, 1830-1962	132	Algeria, France ← Republic FLN		
Sanusi, Libya, 1839-1969	130	1911: Sanusi, Libya ← Italy 1969: Sanusi, Libya ← Republic	4	32

C. Eastern Region

(Afghanistan and Indian Subcontinent)

Dynastic Regimes	Duration Years	End of Dynastic Regime	Total # of Rulers	Average Duration / Ruler
Ghaznavids, Afghanistan, India, 976-1186	210	Ghaznavids ← Ghaurids	19	11
Ghaurids, Afghanistan, India, 1010-1215	205	Ghaurids ← Khwarizms	18	11.4
Governors, Bengal, 1198-1576	378	Governors, Bengal ← Merged	57	7
Slave Kings (Aybak) Delhi, 1206-1290	84	Slave Kings ← Khiljis	11	7.6
Khiljis, Delhi, 1290-1320	30	Khiljis, Delhi ← Tughluqs	5	6
Tughluqs, Delhi, 1320-1414	94	Tughluqs, Delhi ← Sayyids	14	6.7
Bahmani, Deccan, 1346-1528	182	Bahmani ← Mughals	19	9.6
Sultan, Malacca, 1403-1528	125	Sultan, Malacca ← Portuguese	13	10
Sayyids, Delhi, 1414-1451	37	Sayyids, Delhi ← Lodhis	4	9.2
Lodhis, Delhi, 1451-1526	75	Lodhis ← Mughals	3	25
Sultan, Aceh, 1496-1903	407	Sultan, Aceh ← Dutch	34	12
Sultan, Brunei, 1521-Present	586	1888: British Protectorate 1984: End of British Protectorate	30	18.5
Mughals, India, 1526-1858	332	Mughals ← British	22	15
Suris, Delhi, 1540-1555	15	Suris ← Mughals	5	3
Nawab Nizam, Bengal, 1704-1858	154	Nawab Nizam, Bengal ← British	8	19
Nawab, Oudh, 1722-1856	134	Nawab, Oudh ← British	12	11
Nizam, Hyderabad, 1724-1948	224	Nizam ← India	10	22
Durranis, Kabul, 1747-1973	226	1973: Republic 1978: Soviet Occupation 2001: US Occupation	27	8
Sultan, Jogjakarta, 1755-1949	194	1800: Dutch Colony 1945: Republic	13	15
Hyder Ali, Tipu Sultan, Mysore, 1760-99	39	Hyder Ali, Tipu Sultan ← British	2	19
India, Pakistan, and Bangladesh		1757-1947: British Colony 1947: Independence 1947-71: West & East Pakistan 1971: East Pakistan ← Bangladesh		

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Appendix 6

Miscellaneous Information

a. Capital Changes

Arabia/Syria/Iraq:

Medina, Arabia: 622-653, capital during the times of the Prophet and the first three caliphs
Kufa, Iraq: 656-61, made capital by Hazrat Ali
Damascus, Syria: Umayyads, 661 → Harran, Turkey: Umayyads, 744-750
Abbasids: 748, Merv, Khorasan → 749, Kufa, Iraq → 762, Baghdad → 794, Rakka, Syria → Baghdad → 836, Samarra → 892-1258 Baghdad.
Saudis: Darriyah, Najd, 18th century end → Riyadh, up to 1891. Driven out by al-Rashid clan of Hail → Riyadh 1902.

Persia/Iran:

Ctesiphon, Iraq: (Sassanids) up to 637
Maragha, Lake Urmia: Ilkhanids, 1265 onward
Tabriz, Northeast Iran: Mongols, 1295; Kara Qoyunlu, 1375-1468; Aq Qoyunlu, 1469-1501
Mashhad: Nadir Shah Durrani (Afshar), 1740-42
Shiraz: Karim Khan Zand, 1747-72
Herat, Safavids, 1524; Tabriz, Safavids, 1501-48. Qazvin (Northwest of Tehran): Safavids, 1548-98
Tehran: Qajars, 1795-1925; Pahlavi, 1925-1978; Republic, 1978-Present.

Central Asia:

Bokhara: Samanids, 850-1220 (destroyed by Genghis Khan); Shaybandis, 1510-85;
Khwarizms, 1585-1685; Emirate, 1785-1920
Samarqand, Uzbekistan: Timurids, 1306-15th Century → Herat

Takht i Sulaiman, Northwest Persia: Ilkhanids, 1275 → Sultaniya, Northwest Persia: 1306-1353

Merv, Khorasan: Greater Seljuqs, 1037-1153 (destroyed by Turks); Khwarizms, 1221 (destroyed by Genghis Khan). During Sultan Sanjar's reign 1143-1153, it became one of the most beautiful cities in the world.

Neshapur, Khorasan: Alternate capital of Greater Seljuqs, 1037-1221 (In retaliation of the death of her husband, the daughter of Genghis Khan ordered the complete destruction of the city resulting in the massacre of 1.7 million men, women, and children.)

Afghanistan/India:

Ghazni: Ghaznavids, 994-1160

Ghaur: Ghaurids, 1148-1215

Kandahar: Ghilzai, 1700-38; Afshars, 1738-47; Durrani, 1747-76 → Kabul

Kabul: Durrani, 1776-1839; British, 1839-79; Afghans, 1879-Present

Agra: Mughals, 1526-57 → Delhi → Fatehpur Sikri, 1571 → Lahore, 1575 → Delhi to 1858

Ottomans:

Nicaea, Turkey: Ottomans, 1097 → Konya, 1116 → Bursa, 1326 → Edirne, 1366 → Istanbul, 1453 to present

Iznik: Anatolian Seljuqs, 1077-1308

Egypt:

Mahdiyya: Fatimids, 921 → Cairo near Fustat, 969

North Africa/Maghreb:

Kairouan, Tunisia: Aghlabids, 800-909

Qalat Bani Hammad: Hammadids, 1007-1152 (destroyed 1152 by the Almohads)

Fez, Morocco: Almoravids, 1056-62 → Marrakech, 1062 → Fez up to 1147

Almohads: Marrakech, Morocco; Tinmal, Algeria; and Seville, Spain, 1130-1269

Alawids: Fez, Morocco, 1666-72 → Meknes, 1672-1727 → Rabat, 1912 to present

Spain/Sicily:

Cordoba: Umayyad of Spain, 756-951; Madinat al-Zahra (Cordoba), 951-1030 → Taifa Kingdom, 1030-91 → Almohads, 1146 (captured by Alfonso VII of Leon-Castile)

Seville: Almohad, 1146-1258 (captured by Fernando III)

Khalisa, Palermo, Sicily: Aghlabids, 827-1072 (captured by the Normans)

b. Enlightened Rulers and Scholarly Officials

Theology and Philosophy:

776: Sufism: Prince of Balkh Ibrahim bin Adham gave up his kingdom in favor of knowledge. He died fighting against the Byzantines.

994: Theology: Teaching and Dawa: Qadi Nauman, author of *Pillars of Islam*.

1282: Religion: Tafsir: Al-Baydawi, Qadi of Shiraz, revised the orthodox commentary on Quran by al-Zamakhshari (d. 1144).

1338: Theology: Shafaai Qadi of Syria was the author of a book on rhetoric.

1426: Theology: Maliki Law: Ibn Asimo was the Qadi of Granada and author of *Tuhfa* (Gift), a book of verse.

1698: Theology: Shia: Baqir al-Majlisi, son of Taqi al-Majlisi, was the minister of Safavid sultan Husayn.

Science and Technology:

796: Astronomy: Yaqub bin Tariq, at the court of Caliph Mansur. He constructed astronomical tables (mainly for predicting the new moon) in his book *Zij al-Mahlul min as Sindhind*.

800: Technology: First paper mill in Baghdad set up under the minister Yahya Barmaki.

9th Century: Astronomy: Ahmad al-Nahavandi along with Masha Allah were the two early Muslim astronomers who worked at the Academy of Gondeshapur, Khuzestan, Persia, during the reign of Caliph Mansur.

961-976: Patron of Science: Caliph al-Hakam al-Mustansir.

1080: Geometry: Al-Mutaman al-Hud, the ruler of Zaragoza, formulated a lemma for solving al-Hazen's problem.

1449: Astronomy: Ulugh Beg, ruler of Samarqand (b. 1394 in Sultaniya, Persia), grandson of Timur, was a polymath. He was a ruler, a mathematician, and an astronomer who established a sophisticated observatory.

1452: Technology: Ottoman sultan Mehmed II ordered the building of twenty-five-foot-long supercannons.

1783-1799: Technology: Tipu Sultan of Mysore (1750-1799) pioneered the war use of rockets at the battle of Seringapatam against the British.

Literature and Arts:

704: Poetry: Umayyad prince Khalid bin Yazid authored the treatise *Paradise of Wisdom* containing 2,335 verses (Ref: HPM). He was also an alchemist and a translator of Hellenic works.

750: Prose: Hamid bin Yahya, minister under Umayyad Marwan II, was a patron of literature.

839: Music: Scholar: Prince Ibrahim al-Mahdi.

- 912: Geography: Abul Qasim ibn Khoradbeh, a Persian, was the postmaster general and chief of intelligence for Caliph Mutamid (869-85). He wrote *Kitab al-Masalik wal Mamalik* (Book of Roads and Countries).
- 970: Prose: Ibn al-Amid, vizier of the Buyids.
- 974: Prose: Poetry: Persian: Abu al-Balami, the vizier of Mansur I, translated Tabari's *History of Islam* into Farsi.
- 1056: Poetry: Ismail ibn Naghrillawas, the effective ruler of the Taifa kingdom of Granada (1027-56).
- 1090: Poetry: Abbasid ruler al-Mutamid (1069-1090) of Seville was a renowned poet. His poem about his concubine Rumaykiyya was considered a classic.
- 1090: Prose: Humanities: Ziyarid Prince Kay Kavus wrote *Qabus Nama* (Mirror for the Princes). This was a source of inspiration for the German author Goethe (2).
- 1090: History: Abdullah bin Bulugin, ruler of Granada, was the author of *Kitabul Biyan*.
- 1092: Prose: Persian: Abu Ali Nizam ul Mulk Tusi (b. 1018) was the minister of Seljuq Alp Arsalan. He wrote *Siyasat Nama* (Book of Politics)
- 1143: Poetry: Persian: Ilkhanids Sultan Sanjar, the foremost patron of art and literature.
- 1188: History: Syrian prince Usan ibn Mundigh wrote the book *Kitabul Itibar* (Book of Trust) on the relations between the Franks and the Muslims.
- 1200: Poetry: Qadi al-Fadil served under Sultan Saladin.
- 1331: History: Abul Fida Ismail, sultan of Hamah, Syria, contributed in the areas of cosmography and history. He wrote the book *Memoirs of a Syrian Prince* (2).
- 1375: History: Prose: Poetry: Lisan ud din ibn al-Khatib of Fez was the minister of Granada. He wrote the history of North Africa and Sicily and on the political uncertainty in Spain. He was prosecuted by Qadi al-Nubahi of Granada and later executed (2).
- 14th Century: Poetry: Turkish ruler Burhan ud Din delved in poetry.
- 1418: Reform: Administration: History: Al-Qalqashbandi, chancellery official, author of an encyclopedia on administration. He wrote about the history of Syria under the Mamluks (2).
- 1506: Literature: Patron of Arts: Ruler: Timurid Sultan Hussain Bayqara was the patron of the poets Jami, Navai, and Mirkwand and the painter Behzad (2).
- 1625: Poetry: Urdu: Muhammad Qutub Shah, the ruler of Golconda (1611-1625), wrote in the Deccan style.
- 1672: Poetry: Urdu: Abdullah Qutub Shah, the ruler of Golconda (1625-1672).
- 1702: Poetry: Persian: Princess Zebun Nisa Makhfi (the Hidden) was the talented daughter of Emperor Aurangzeb.

c. Scholars Who Were Victims of Atrocities and Violence

- 700~: Qadirites pioneers (who supported the concept of free will) Ghailan Damishqi and Mabad al-Juhani were executed by the Umayyads.
- 732: Fiqh: Imam Abu Hanifah (Nauman ibn Thabit) (b. 704 in Kufa). During the Abbasids' rule, he was summoned by Caliph Mansur when he protested against the execution of

Ibn Abdullah and his son Ibrahim. On his refusal to accept the office of Qazi, he was sent to jail and tortured.

748: Mutazila: Wasil bin Ata of Basra was declared a Zindiq (heretic) and executed by Marwan II, the last Umayyad.

759: Philosophy, Medicine: Abdullah ibn Muqaffa (and his son Mohammad) translated Aristotle's *Categories*, *Hermeneutica*, and *Analytica Priora*. Ibn Muqaffa being influenced by Zoroastrianism and Manichaeism was declared a Zindiq (heretic) and executed.

783: Philosophy: Mutazila Extremist: Bashar ibn Burd was declared a Zindiq and executed.

814: Inquisition (Mihnah): On his refusal to accept the Mutazila doctrine of the "createdness of the Quran," Imam Ahmad bin Hanbal was tortured and imprisoned on the orders of the Abbasid caliph Mamun.

846: Philosophy: Mutazila: Ahmad bin Hait was declared a Zindiq. (He ascribed divinity to Jesus and believed in the existence of two lords: Allah the uncreated and Jesus the created.)

899: Philosophy: Tayyib al-Sarakhsi was a pupil of al-Kindi and a friend of Caliph al-Mutadid. He took liberties in the use of logic to the point of heresy, calling prophets of being charlatans. Declared a Zindiq, he was executed.

911: Philosophy: Mutazila extremist scholar Abu Isa ibn Warraq, a teacher of Ibn Rawandi, was declared a Zindiq and executed. He also repudiated Judaism and Christian sects of Jacobites, Nestorians, and Melchites, saying that these did not conform to the rules of Aristotelian logic.

911: Philosophy: Mutazila extremist scholar Ibn Rawandi argued prophethood to be superfluous and was declared a Zindiq. He believed in the literary meaning of divinity and regarded the "miracle-ness" of the Quran to be untenable (he explained the reason for the excellence of the Quran as follows: "Since the Quraish should excel as the most articulate tribe of the Arabs and the Prophet [PBUH] [belonging to that tribe] should surpass all others in eloquence").

922: Sufism: Ibn Mansur al-Hallaj: A Persian who propounded Ittehad, unitary mysticism with Allah, "I and the Thou" was declared a Zindiq and put in jail for nine years by the vizier Hamid of Abbasid al-Muqtadir. He was lashed, mutilated, crucified, decapitated, incinerated, and his ashes scattered over the Tigris River (Ref: FM).

10th Century: Poetry: Persian: Rabia Balkhi was a contemporary of Rudaki. She was the first poet who wrote in Dari Persian. She was executed by her brother, the ruler, for having an affair with a Turkish slave, Baktash.

1023: Prose: Humanist: Al-Tawhidi of Baghdad wrote *Insights and Intrigues*, an anthology of anecdotes and aphorisms. His dialectical humor was considered too radical for Ibn Jawzi who labelled him as an archetypical Zindiq.

1121: Medicine: Muyyad ud din al-Tughrai (b. 1061 in Isfahan) authored *Mafatih al Rahma wa Masabih al Hikmah* (Secrets of Grace). He served at the Seljuq court. He was charged with apostasy and heresy and was executed.

1191: Sufism: Shahab ud din Yahya al-Suhrawardi (b. 1155 in Persia) also known as Maqtul (martyr). He was a pupil of Abdul Qadir Jilani and author of many works including

Awarif al Maarif (Benefits of Gnosis). He was the teacher of Gnostic cosmology and illumination (*Hikmat ul Ishraq*) and founder of one of the most important Sufi orders. He was charged with heresy for introducing Batini (Shia Ismaili) teachings and declared Zindiq. At the age of thirty-six, he was executed on the orders of Sultan al-Zahir, the son of Sultan Saladin (3).

1221: Sufism: Najm ud din Kubra of Khwarizm (pupil of Abdul Qadir Jilani) founded the Kubrawiyya order. He was killed during a Mongol attack.

1375: History: Prose: Poetry: Lisan ud din ial-Khatib of Fez was the minister of Granada. He wrote the history of North Africa and Sicily and on the political uncertainty in Spain. He was prosecuted for his views by Qadi al-Nubahi of Granada and later executed.

1396: Poetry: Ibn Zamark of Alhambra. His poetry decorates the palace walls of Alhambra palace. He was prosecuted and later executed.

1416: Sufism: Sufi Badr al-Din of Rumelia was declared a Zindiq, a heretic, and executed.

1594: Architecture: Davut Aga, Sinan's successor and architect of the beautiful Blue Mosque complex in Istanbul, was executed for his freethinking attitude in 1599 under the orders of Sultan Mehmet III.

1635: Poetry: Turkish: Nafi was the greatest representative of Ottoman Divan style which was influenced by the new Indo-Persian floral style, Sabk i Hindi. He also wrote satire and was executed for indiscretion as some of his works were considered too virulent.

1818: Egypt-Arabia: The Wahhabi prince Abdullah ibn Saud was defeated and captured by Ottoman prince Ibrahim Pasa at Darriyah. He was sent to Istanbul, declared a Zindiq (heretic), and was executed. His head was placed on the marble columns outside the palace.

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Any discussion about Islam these days brings about deep passions, both overt and latent. On both sides of the divide, the main common factor is that of fear. Apparently, this antagonism is between unequals. One side claims technological and material prowess within a civilized society while the other claims righteousness of their cause and the spirit of their faith. All this has given rise to the phenomenon of "global heating" that has elevated the global temperature in terms of fear, intolerance, terrorism, and open warfare.

Most of the recent books on Islamic creed and its people are either polemic or apologetic in nature. These have managed to exacerbate the divide with all its attendant losses. This book is a frank diagnostic about the predicament of the Muslim people from a Muslim's point of view. This diagnosis is based on the factual analysis of over two thousand data-items and historical events. It highlights their deficiencies that have been the root cause of their decline from their position as positive contributors to the world's progress. It provides pointers for the path toward the resuscitation of the Muslim societies.

The book is multidisciplinary in that it touches upon history, religion, politics, and information processing. It employs a novel approach in understanding the deficiency hierarchy. Analysis of historical data is also used in corroborating the conclusions. The main objective of the book is toward the social engineering of the Muslim societies. Any effort in this direction may help in cooling off the phenomenon of global heating that is currently engulfing our world.

This book should be of interest to students and researchers in history, religion, and current affairs; policy makers; intelligentsia; politicians; as well as the media.

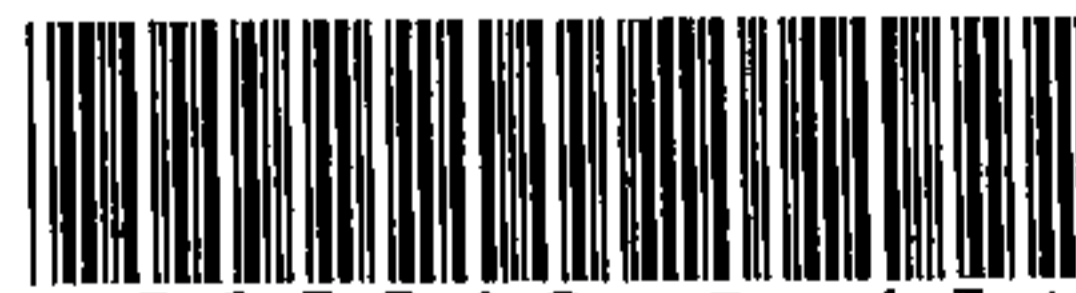


Misbah Islam obtained his undergraduate degree in electrical engineering from Lahore, Pakistan, and his graduate and doctorate degrees from the UK. After working in the IT practice and teaching in Pakistan in 1982, he joined the diaspora to the West. After a brief teaching period at the Acadia University in Canada, he worked in the telecommunication industry. In 2001, he resumed teaching at the University of Ottawa, Canada.

For a long time he was intrigued by the reasons behind the sterile predicament of Muslim societies. Influenced by events of the recent past, he began investigating application of different methodologies to issues in history and social engineering. His appreciation of the characteristics of Muslim societies facilitated a synergistic approach to the understanding of the complex problems and methods of their solution.

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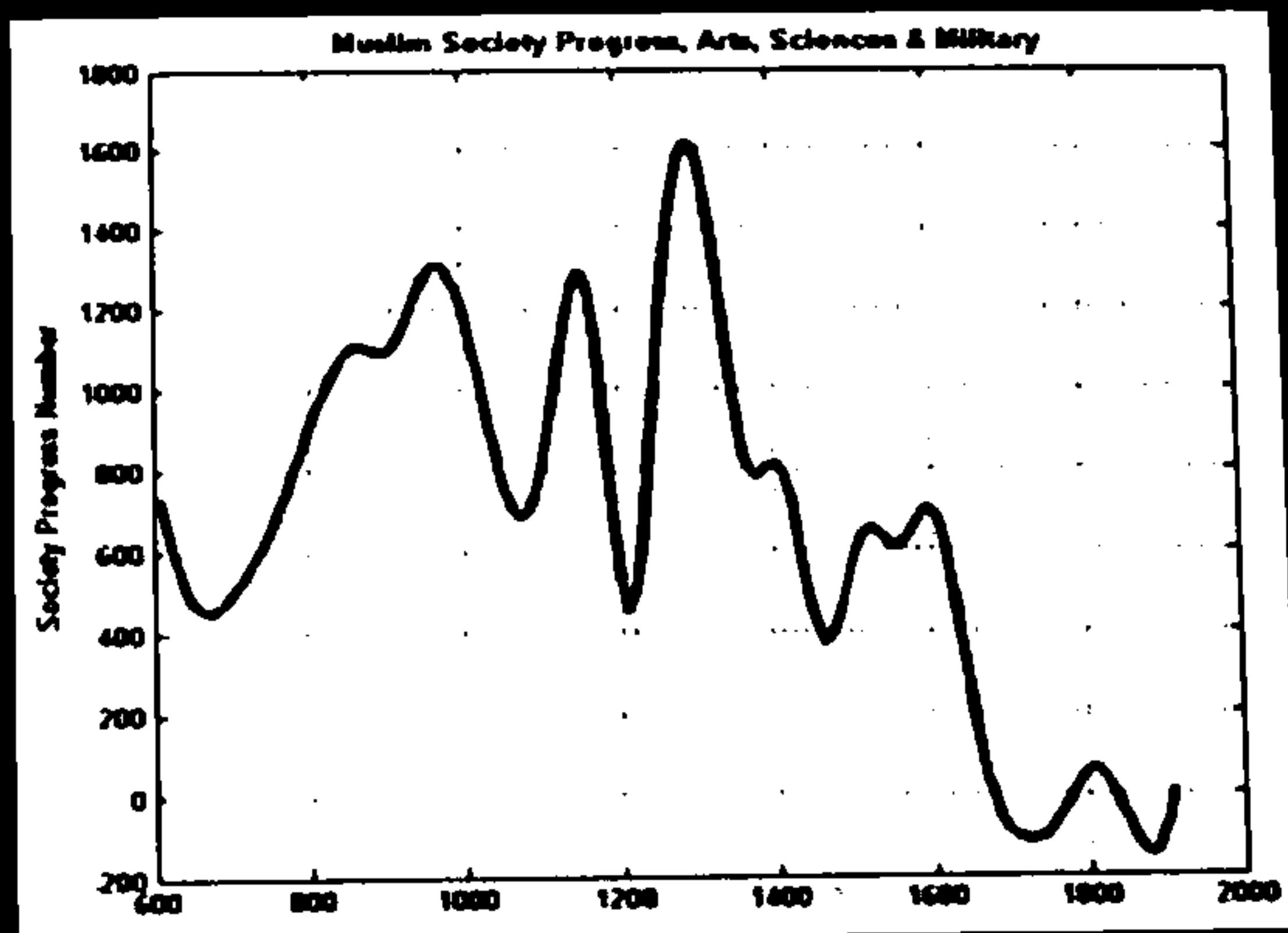


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DECLINE OF MUSLIM STATES AND SOCIETIES



THE
REAL ROOT CAUSES
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