

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

**MANUSCRIPTOLOGY OF ILLUMINATED MANUSCRIPTS OF QUR'AN: A
COLLECTION OF GANJBKHS LIBRARY, IRAN-PAKISTAN INSTITUTE
OF PERSIAN STUDIES, ISLAMABAD**



By

SAIMA SYED

**Taxila Institute of Asian Civilizations
Quaid-i-Azam University, Islamabad
2021**

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SAIMA SYED

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT
FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY
IN
ASIAN STUDIES

Supervised by

Dr. Rafiullah Khan


**Taxila Institute of Asian Civilizations
Quaid-i-Azam University, Islamabad**

2021

Certificate of Approval

This is to certify that the research work presented in this thesis entitled "*Manuscriptology of Illuminated Manuscripts of Qur'an: A Collection of Ganjbakhsh Library, Iran-Pakistan Institute of Persian Studies, Islamabad*", was conducted by Ms. Saima Syed under the supervision of Dr. Rafiullah Khan. No part of this thesis has been submitted anywhere else for any other Degree. This thesis is submitted to Taxila Institute of Asian Civilizations, Quaid-i-Azam University, Islamabad in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the field of Asian Studies.

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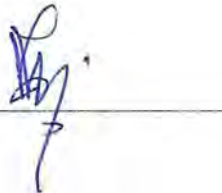
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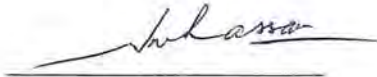
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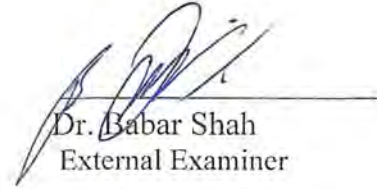
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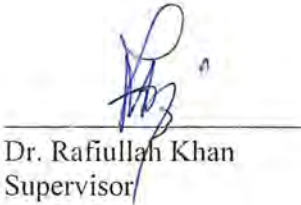
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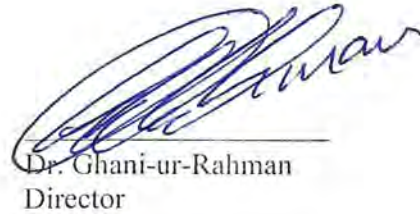
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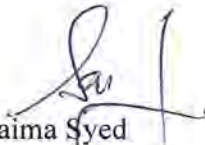
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Supervisor Declaration

I hereby recommend that the dissertation prepared under my supervision by Ms. Saima Syed, entitled “Manuscriptology of Illuminated Manuscripts of Qur’an: A Collection of Ganjibksh Library, Iran-Pakistan Institute of Persian Studies, Islamabad”, be accepted in partial fulfilment of the requirements for the degree of Doctor of Philosophy in Asian Studies.



Dr. Rafiqul Haq Khan
Supervisor

ACKNOWLEDGEMENT

First, I am thankful to ALLAH *subhanahoo*, the most merciful and the most magnificent. I am also grateful to all my teachers. Their guidance built my analytical ability and made my observation strong. I learnt from them to deal the data analytically and philosophically. May Allah bless and reward them here and in the hereafter. I pray from Allah *subhanahoo* to make them an even stronger source of knowledge and skill for their students in the coming years.

I express my deepest gratitude to my respected supervisor Dr. Rafiullah Khan for his continuous support, valuable comments, encouragement, and cooperation in the completion of this PhD dissertation. His availability in office hours and his welcoming attitude always made this difficult task an achievable job.

I offer my gratitude to the faculty members, especially the Director, Dr. Ghaniur- Rahman and the staff of Taxila Institute of Asian Civilizations for their full cooperation during my research. My modest efforts to unveil some hidden treasure in the archival collection of Ganjbakhsh library would not have been possible without the cooperation of the authorities and the staff of Iran - Pakistan Institute of Persian Studies, Islamabad. My gratitude to the Shah-bu-den Daraee the Director of Iran-Pakistan Institute of Persian Studies, Islamabad, for having confidence in me and allowing me to have access to their priceless archival treasury. I am also thankful to Dr. Ali Abu Turab, Dr. Mahdi Husaini and Mr. Safdar for their valuable cooperation.

I also acknowledge my parents, my brother Dr. Syed Sajid Shah, other family members and friends for the great encouragement which made me able to achieve this task.

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TRANSLITERATION OF ARABIC CHARACTERS

Consonants

ء	ب	ص	ṣ
ب	b	ض	ḍ
پ	p	ط	ṭ
ت	T	ظ	ẓ
ث	Th	ع	‘
ج	J	غ	Gh
چ	ch	ف	F
خ	kh	ق	Q
ح	ḥ	ك	K
د	D	گ	G
ذ	Zh	ل	L
ر	R	م	M
ز	Z	ن	N
ژ	dh	ه	H
س	S	و	W
ش	Sh	ی	Y

Short Vowels		Long Vowels		Diphthongs	
اَ	a	اِی	ā	اَو	aw
اُ	u	و	ū	اِی	ay
اِ	i	ی	ī		
construct state	ة a; at	article	ال al		

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Chapter 1

Introduction

Manuscriptology has received paramount importance in the learning and recognition of various historical cultures and heritage of different geographical regions of the world. The study of manuscripts is vital for the preservation of historical evidence regarding the documented human experiences, wisdom, thinking process of people of a place and time period along with traditional values of a specific region. Manuscriptology may also reveal the medical treatment modalities available to the people of that time and a place. It may also be helpful to study and find out the important health and social issues of a society at a specific time period.

The manuscript is a handwritten document which has historical, literary and aesthetic value. The word “Manuscript” originated from the Latin word “Manuscriptum” which means something written by hand (Perumal 1999). Shaista Parveen narrates the elaborated definition of the manuscript. According to this definition, all documents which are written on soft and hard material by hand, are called manuscript (Parveen 2008).

Encyclopedia of Library and Information Science United States defines the term “manuscript” as handwritten documents on hard material such as the ancient inscription on stone and clay tablets, soft material such as vellum, leather and paper books/codex /manuscripts of Medieval and Renaissance time. According to Jilby John “the science of manuscript study is known as manuscriptology” (John 2016).

The study of John explains the primary (collection, conservation and cataloguing of the manuscript) and secondary (transcription, translation, critical editing and publication)

steps for manuscript study. Another approach towards Manuscriptology is adopted by the Habibollah Azmi. According to his opinion, different aspects of manuscriptology can be investigated in two parts, codicology and bibliography (Azimi 2011).

The manuscripts are very important source of knowledge about the written traditions and cultural values of a specific region at a specific time. Greek, Latin and Hebrew manuscripts have been extensively evaluated and studied by the researchers involved in the field of manuscriptology, but the Arabic manuscript studies are sparse.

Over more than a thousand years, the Qur'an is the most prevalent copied Arabic manuscript which may be attributed to its sacredness for the Muslims. The teaching and recitation of Qur'an is of vital importance for the Muslims. It may be a factor for the development of a large number of manuscripts of Qur'an around the world and particularly in the countries which were ruled by Muslims. In spite of a large number of manuscripts of the Qur'an, the research on these topics is lacking. The present study is conducted to reduce the wide knowledge gap on this aspect.

Since Qur'an has been a sacred book for Muslims. It had been given special importance in the regions, which were under the influence of Muslim rulers. In these regions, the manuscripts of Qur'an were scribed by the skillful calligraphers and illuminators.

Regarding the manuscripts of Qur'an, F.R Martin states in "The Miniature Paintings and Painters of Persia, India and Turkey" that the Qur'an is the book that is formed artistically by the Arab scribe in early times (Martin 1912). It denotes that the manuscripts of the Qur'an were very carefully and beautifully scribed from the beginning of Islamic era.

The significant collections of manuscripts of Qur'an are present in the different regions of the world which reveals the special interest and immense love for this book by the Muslims.

Among the important sources of the manuscripts of the Qur'an, there is the Ganjbkhsh library Islamabad (GBL) which has received the huge collections of Qur'anic manuscripts.

This library is an integral part of the Iran-Pakistan Institute of Persian studies. It was set up in 1969 with the aim of reviving of Pakistani heritage, Persian language, art and literature. These manuscripts of Qur'an have been collected from the various universities, shrines, religious schools and private collections. Initially, this library was set up in Rawalpindi. Later on, it was shifted to Islamabad in 1982.

The collection of Ganjbkhsh library Islamabad contains more than 2700 manuscripts of Qur'an, Arabic, Persian literature and other languages (in Urdu, Sindhi, Pashto, Punjabi, Turkish and other languages) (Zahid 2014). A variety of illuminated manuscripts of the Qur'an related to different regions and styles are present in this library.

Most of the manuscripts of the Qur'an present in the Ganjbkhsh library Islamabad are in Arabic and Persian which includes seventy-seven per cent of Qur'anic manuscripts are in Arabic only while twenty-three per cent of manuscripts are in Arabic along with Persian translation.

Ganjbkhsh library Islamabad collection of Qur'anic manuscripts is rich in terms of variety of manuscripts from different regions of Pakistan. This collection has a spectrum of colours, design, a long timeline of the 14th century till 20th century.

The research on the Islamic manuscripts commenced in the middle of nineteenth century and in the initial research work, the features of material were evaluated by the researcher under the art historical framework and Palaeography.

Arabic manuscript has a wide range of script types and layouts which could be because of Arabic influence on writing traditions of different regions of the world. Influential cultures put their impact on the Arabic writing. The author mentions that many factors involved behind the uniformity and variation in the script of Hebrew and Arabic, Christian -Arabic (in south Palestine) Persian-Arabic, Ottoman Turkish-Arabic and Sino-Arabic in the book of “Creating Standard: Interaction with Arabic Script in manuscript Cultures”. One of the finding of this book is about the different variety of manuscript culture, which develop the different path of standard for orthography, layout and script (ed Dmitry et all 2019). In another book “Manuscript Culture: Mapping the Field” (Ed. Quenzer et all 2014), it has been discussed that there is no unified discipline for the study of Muslim manuscripts and European manuscript tradition. This book suggests that the starting interdisciplinary dialogue has systematic and comparative approach towards manuscriptic cultures worldwide.

The evaluation of the historic manuscripts includes contents of the book, production, execution, circulation and preservation which have been narrated in the book of “Indic Manuscript Cultures through the Ages”. This book consists of a collection of the essays regarding the wide range of themes of manuscripts related to south Asian region. Mostly this type of studies is based on material aspects (Palaeography, layout and illumination/decoration). It may also be related to the social, intellectual and economic interest of scribe who is concerned with the production of the manuscripts.

The evaluation of writing style is a part of manuscriptology, codicology, as a separate discipline of palaeographic study, content analysis and typology. Usually, manuscripts are analysed by its content. Content analysis also identifies the individual texts. For the better understanding of the text, the codicology has a comprehensive approach towards manuscript. The author of the book “One – Volume Libraries: Composite and Multiple-Text Manuscripts” is also in the favour of the codicology.

According to Kishor Kumar, the scope of manuscriptology was not defined till the late 18th century in the subcontinent. Many endeavors regarding manuscript study was conducted under the Asiatic society for Asian study (established by Sir William Jones 1746-1794) on 15th January 1784 in Calcutta which is a famous city in the Subcontinent (Kumar 2014). One of main objectives of William Jones was to preserve the intellectual heritage of manuscripts of the subcontinent.

The department of manuscriptology was established in Madras in 1985. The main objective was to collect, translate, record and conduct research on palm leaf manuscripts especially.

In the 20th century, the publication has broader aspects of the investigation of Islamic manuscripts, such as aesthetic forms (design, illumination), bindings (style and structure) and material. Many scholars such as Martin Levey, Gulnar, Bosch, Adam Gacek and Francois Deroche have made an important contribution in this respect (Scheper 2015).

The contribution of Levey Gacek, Whelan and Abbott were to publish the Arabic calligraphy and provide the knowledge about the Arabic text in the English language. Bosch has worked on the structure/ techniques of the manuscripts, to catalogue and exhibit the Islamic manuscript. Many methods are used to evaluate the manuscript such

as palaeographical study. This method has limitations and it is only helpful for the study of letters and their formation at different times.

Manuscriptology broadly covers the codicology and bibliographic approach. Different scholars have adopted different methods for the documentation and analysis of Qur'an manuscripts.

The investigation conducted by Deroche broadens the way for the researcher as he introduced the codicology of Arabic and Islamic manuscript. He paid attention to different styles of Qur'an manuscripts and their binding styles. He adopted the inductive style under the bibliographic method for analysing the Qur'an manuscript, while Whelan used the palaeographical method for analysing Arabic letters and their formation. Whelan's study was lacking the attention towards illumination and binding style of the QMs.

Over the last few decades, some publications have appeared on preservation and restoration, design and illumination of Islamic manuscripts. These publications provide valuable information regarding the regional style, calligraphy, structure and material of these manuscripts.

Gallop and Akbar (2006) have studied the illuminated Qur'an from Banten. It is discussion about the layout, binding and decoration of the Qur'an that belong to Banten.

Hussain (2010) discussed the symbols and different signs applied to the illumination of Qur'an manuscript.

Qutab (2012) published her survey report "State of manuscripts in Pakistan", where she highlights the age, language, writing material, writing style and the condition of the manuscripts. She has mentioned the location (city, institution public/ private) number of manuscripts of Arabic, Persian and other languages. The study proposed to

investigate the conservation, restoration and preservation state of manuscript in Pakistan (13 selective institutions, holding MS collection) but did not emphasize on publication which is a part of manuscriptology investigation.

Rafya (2013), in her study focused on the analysis and identification of indigenous styles of illumination as found in Qur'an manuscripts produced in the Subcontinent (PhD thesis).

Syed (2015) also works on the documentation of illuminated Qur'an manuscripts. She has adopted the methodology of physical analysis. It covers the theme of illumination design, material and techniques. In the study, there was less attention towards the calligraphy and its different style.

The present study adopted all the possible methodologies of above-mentioned scholars but in the light of Manuscriptology. The physical analysis is preferred for the analysis of the Qur'an manuscripts. A collection of Qur'an manuscripts is examined and recorded in detail.

The main objective of this study is to examine the manuscripts thoroughly, investigate the facts and relate them to the origin of the manuscripts while maintaining the manuscripts typology, chronology and structure of the book.

The present study broadens our knowledge about the illuminated manuscript of the Qur'an in Ganjbxsh Library of Iran-Pakistan Institute of Persian Studies Islamabad. It analyzes the cultural influences on art forms and the exchange of artistic skills that made the Muslim art stylistically diverse. This study examines the illuminated manuscript of the Qur'an in the contexts of patronage, religious doctrine, cultural assimilation, regional artistic traditions, and technological innovation.

The specific objective of the study is organization of data (typology, chronology, design) categorization of data (different schools of art, and social classified art forms), explanation of data (regional, foreign, social and political influences) evaluation of data (by physical analysis, observation and Art historical evidences).

The common objective of the study is to evaluate the conveniently available data which has historical and aesthetic value. It would be helpful to study the different school of art and art forms along with the social and economic values of the Qur'anic manuscripts in the region of Pakistan and the revival of the art forms. The limitations of the present study are unstructured available data and lack of uniformity of the manuscripts, which have missing pages and colophons. The other factors which created some hurdles in the way of investigation include hybrid style of manuscripts and a variety of styles/art forms, colour palette, internal and external influences exerted by the artists, traders and invaders.

The problem statement of the present study is that internal and external influences cause variation in the process of illumination of Qur'an manuscripts formed in the region which is currently located in Pakistan. Different schools of art prevailed in the history (during the 14th till 20th century) of the areas which are now part of Pakistan.

Everett Rogers theory "Diffusion of Innovations Theory" is adopted as theoretical framework of this study.

The wide usage of this theory is due to the element of "innovative idea". This innovative idea enhances the quality, design and the value of commodity. Every individual, either a student or a master, a single territory or a broader state more or less test its ideas under the "Diffusion of Innovations Theory".

Tina M. Lowrey (1991) qualitative study used Roger's diffusion of innovative theory just to examine the consumer behaviour towards purchasing decision making. This study also highlights the new approach of consumer innovativeness. Another study which was conducted by Leah A. Lievrouw (1994), applied the diffusion model to highlight the communication process in art. The study emphasis on the contemporary artwork that has the characteristics of an aesthetic innovation.

The John Boardman (1994) explains the diffusion process in antiquity, how the classical Greek art forms transmitted and transferred from one destination to another. He further mentioned the means of transformation which were colonist, armies and traders. The classical Greek art forms containing new ideas were observed by the local artists and amalgamated into their local art. Boardman identified the influence of classical Greek art forms on the regions of Near East, Persian Empire, Spain, Egypt, North Africa, Italy and Europe.

P.L.W Arts (2011) explained the diffusion process in his illustrated book. His comparative study unveils the transformation of images and motifs from Roman to Tokyo with the time line of 5th BC till now. This book comprehensively provided the critical analysis of cultural diffusion across the extensive area.

Another research work conducted by the Miyuki Sasaki (2018) also used the Roger's theory. This study examines the implementing process for new educational policies.

The whole work of the present study is divided into five chapters, including this introductory one. The second chapter includes Analysis of Methodology and Theoretical Framework.

The methodology of the study of manuscripts in the present research includes the assessment of collection, analysis, typology, codicology and palaeography.

Everett Rogers theory “Diffusion of Innovations Theory” is adopted as theoretical framework of the present study.

The rate of the adoption fluctuates due to the late adopter or the social behaviour of the adopter. The classification of the Qur’anic manuscripts and the chronological comparative analysis reveal different moods in different times. The high rate of adoption towards simple Qur’anic manuscript is noticed from 18th to 20th century (CE). Regarding the illuminated Qur’anic manuscript, the adoption rate was high in the 17th to 18th century. There was low adoption rate for the simple manuscripts of Qur’an during the period of 14th to 16th century. Similarly, the adoption rate was low for the illuminated manuscripts of Qur’an during the 19th to 20th century.

Third chapter highlights the codicology of a Qur’an manuscript (paper style, quality and paper making centres). Many regions of Pakistan produced the best quality paper. The raw material for paper making and method is also varying in different regions. In GBL collection paper is classified due to its types such as *Samarqadi*, *Hirati*, *Kashmiri*, *Saphani* and *English*. Buff, white, brown and yellow are the colours of the paper have been identified in the GBL Qur’an manuscript collection. Qur’an binding is also a part of the investigation under the codicology. Physical features of Qur’an bindings, material and different techniques make part of this chapter. It further identifies regional and foreign influences on the illuminated bindings of the Qur’an manuscript.

In chapter four, Palaeographic study deals with the formation of the text (calligraphy), style and layout of a manuscript (design). Arabic script developed in many forms through the ages. After *Iraqi* script, *Thuluth*, *Sajlat*, *Dibaj*, *Marsa* and *Naskh* developed which led to the more forms of the script. Identical and common script such as *Naskh*, *Thuluth*, *Nasta’liq*, *Muhaqqaq*, *Rihani* and *Riq’a* has a capacity to spread the knowledge

and keep the religious manuscript alive. The orientation of the Arabic text is from right to left. The style of writing becomes changed when the nib of the pen is changed. Master calligrapher has his own style of writing due to the adoption of specific styles and writing techniques is discussed in this chapter. Social and cultural exchange program amalgamate the styles of writings in Pakistan and India. The status of calligraphers, assigned work, under the patronage of ruling class and the worth of their work is also debated here.

In chapter five, various factors are discussed which have influence on the manuscript of the Qur'an during the different time periods. The study discusses the changing art forms of Qur'an manuscript within the chronology 1300-1999. A variety of art forms are used by the artists/calligraphers.

The stratification in the social setup which affects the art has been discussed in this chapter. Manuscripts are divided into three groups according to their presence of the features of illumination. The first group is termed as high- illuminated (extraordinary decoration with different colours and gilding). The second group is categorised as the illuminated manuscript in which only the first folios are decorated prominently. In the simple manuscript (third category), only *sura* heading is prominent along with simple ruled frames, diacritical marks in red or blue and ordinary marginal design in the round or Arabic alphabets.

This chapter further elaborates the transitional periods of Qur'an illumination. Different regional and artistic styles are discussed here such as *Lahori* school of art and its types, *Yaquti* style (juxtaposed script style), Hybrid style of illumination (of *Lahori* style mixed with Persian/Turkish or *Kashmiri*), *Kashmiri* style, *Bihari/Bahari* Style,

Lastly, in this chapter, the relative chronology of Qur'an manuscript has been mentioned. The relative chronology of unidentified manuscripts of Qur'an is done with the help of physical examination and art historical evidence.

The codicological evaluation of the Qur'an manuscript includes the study of paper style, quality, identification of paper making centres, binding style and material. The physical features of Qur'an manuscript bindings such as the material used for the binding and different techniques used for the bindings have been assessed. The regional and foreign influences on the illuminated bindings of the Qur'an manuscript have been noted. The palaeographic study included the evaluation of style of Arabic writing such as *Iraqi* script, *Thuluth*, *Sajlat*, *Dibaj*, *Marsa* and *Naskh*. The typological evaluation of the Quran manuscripts included the assessment of the physical features such as gilding with blue and red colour, marginal design, foliage motifs and patterns, floral borders, ruled frames, colourful *sura* heading, decoration in the frontispiece and last folio.

In the present study, the knowledge gaps regarding the Qur'anic manuscripts of the Subcontinent have tried to be bridged and may generate interest among the other researchers of manuscriptology for the explanation of the ancient wisdom of the Subcontinent.

Chapter 2

Analysis of Methodology and Theoretical Framework

The appropriate selection of methods for the research project have received paramount importance for the proper assessment of the designed objective. The methodology of the study strongly influences the inference. In the present study, the manuscripts of Qur'an from the past centuries have been studied for the aspect of typology, chronology and overall design layout.

The writing is an important form of asynchronous communication. The process of writing commenced about five thousand years ago and it is attributed to the Sumerians living in Mesopotamia till present day. With the development of writing skills, the human being achieved the capability of communication with other human being even in their absence. The writing skills further enhanced the supremacy of human beings over other living creatures. The improvement in the writing skills occurred over a period of time and which may be due to the effects of various cultures of the different regions. The developments in the writing skills strongly improved the communication of important information among the human being.

Before the invention of printing press, the manuscripts were important source of written communication. The production of manuscripts was fashioned in all over the Islamic world with a spectrum of colours and different layout. In this study the data has been organized according to manuscriptology (typology, chronology and overall design layout).

The art and culture of the region also exert influence on the oral and written communication and interaction among various cultures brings up certain hybrid features over a period of time. In the present research, the categorization is made due

to different school of arts prevailed in a long-time line. The data is explained under the regional and foreign, social and political influences on the land of Pakistan.

The methodology of the study of manuscripts in the present research includes the evaluation of collection, analysis, typology, codicology and palaeography.

The codicological assessment of the Qur'an manuscript includes the study of paper style, quality, identification of paper making centres, binding style and material. The raw material for paper making and method is also different in the various regions. In GBL collection, the paper is classified due to its types such as *Samarqadi*, *Hirati*, *Kashmiri*, *Saphani* and *English*. The physical features of Qur'anic manuscript bindings such as the material used for the binding and different techniques used for the bindings have been assessed. The regional and foreign influences on the illuminated bindings of the Qur'anic manuscript have been noted.

The palaeographic study included the evaluation of style of Arabic writing such as *Iraqi* script, *Thuluth*, *Sajlat*, *Dibaj*, *Marsa* and *Naskh*. The illumination of the manuscript has also been assessed.

The typological evaluation of the Qur'an manuscripts includes the assessment of the physical features such as gilding with blue and red colour, marginal design, foliage motifs and patterns, floral borders, ruled frames, colourful *sura* heading, decoration in the frontispiece and last folio.

Many studies have been conducted by the scholars to investigate why and how things were adopted in a distinct location. According to Wejnert that a good/ thing has a staying power in the other location due to the social environment of acceptance (Wejnert 2002: 292). Time and accessibility are the key factors for the process of adoption and diffusion. In this process, there is no limit on the time period but the

accessibility towards goods is required. The vital factor for the accessibility is the pursuing in the production process. In the process of adoption, the products would penetrate in a new culture (Hamblin and Miller 1976: 799).

Roger explained the process of diffusion with the help of elements such as innovation, uncertainty, means of communications, time and social system.

Everett Rogers theory “Diffusion of Innovations Theory” is adopted as theoretical framework of this study. According to the Rogers diffusion as “the process in which an innovation is communicated through certain channels over time among the members of a social system” (Roger 2003).

The explanation of his theory can be elaborated through the main points of the above-mentioned definition. Roger indicated the communication channel, time and social system. The idea of similar goods production within the separate destination may occur due to the trade relations and skill exchange program.

Various types of creative thoughts and innovative ideas may develop in the different regions and cultures due to the different environmental factors, requirements of the society, economic needs and previous experiences of the people of the particular region which may have practical impact on the society. The novel ideas generated in a specific society may influence the neighbouring societies and regions over a period of time with the development of communications among these regions. The mutual sharing of the novel ideas among the different cultures, societies and people from various geographical regions may result in the development of hybrid styles, refinement in the creative thoughts and even synthesis of new thoughts due to the diffusion process.

In the present study, the manuscriptological assessment of the illuminated manuscript of Qur’an from the collection of Ganjbkhsh library, Iran-Pakistan Institute of Persian

studies, Islamabad is a step towards the evaluation of diffusion process involved in the development of art and craft regarding the Qur'an manuscripts in the subcontinent and particularly in the region which are now located in Pakistan.

The innovative ideas regarding the design layout, paper making, various combination of colour, calligraphic expression and binding style across the geographical boundaries and territories exerted their influence in the development of the manuscripts of Qur'an in this region.

The process of diffusion is a long-term procedure. Much more time and efforts are required to impress and convince for any change in the already established practices and norms in a society or culture of a specific area. The span of the present study is quite long which commence from the 14th century till 20th century. This timeline has a sufficient margin to explain the Roger's diffusion process.

The theory of diffusion of innovations has been put forwarded by Everett Rogers which describes the life cycle of products innovation in five stages that determines the success of an innovative idea involved in the synthesis of a specific product.

1. Decision Process

The five steps are involved in Roger's decision-making process, awareness/ knowledge, interest/ persuasion, evaluation/ decision, trial/ implementation and adoption/ confirmation.

Scholars mostly used the word adoption and diffusion in a same manner, but both has different meaning. Adoption is the process of diffusion. In the present study, the evaluation of Qur'anic manuscripts (QMs) from the collection of Ganjibkhsh library, Islamabad reveals the different influential styles and schools of art which also explained the regional representation of Qur'an manuscripts (QMs). The study also unveils the

facts that how illuminated Qur'an manuscripts (QMs) fashioned in the region of Subcontinent.

The influence on the art and craft of a nation from the neighbouring countries may occur due to mutual trade, invasion of a country by another neighbouring nation or religious ties between the different nations and countries. The influence of the culture, art and craft of the regional and closely related nations or countries may result in amalgamation of the cultures through literature, script, colour combination and material etc. For example, the Arabs learnt the paper making technique from the Chinese captives at Samarqand. After acquiring the skill of paper making, the Arabs spread this technique all over the Muslim regions with the passage of time which included the modification of material as well. Such as the paper produced in Kashmir was made of hemp fibre whereas the *Samarqandi* paper was made from the cotton fibre. The quality of paper was also dependent upon the technique/skill, moulds, material and weather of the region. Typology of paper is based on usage and affordability of consumer, as high quality of paper has been used for the religious books and royal court for official documentation and ordinary paper has been used for packaging of goods.

The manuscripts of Qur'an from the collection of Ganjibkhsh library, Iran-Pakistan Institute of Persian studies, Islamabad have a vast range of colours such as red, yellow, deep blue, green, pink and black along with the influential colours of golden, white and blue (main colour scheme of Persian and Turkish QMs).

The typology of manuscripts of Qur'an under colour scheme has been divided into three categories. The first category is labelled as high illuminated which is characterized by more use of golden and blue colour for background with multicoloured palette for design. The second category is designated as illuminated which is characterized by less

gilding and more use of red and blue colour. The third category is termed as simple. The manuscripts of Qur'an included in this third category (called as simple) have one or two colours decoration and these were devoid of gilding due to expensive materials such as gold and the yellow colour was adopted by the artists instead of golden colour.

In the beginning, the manuscripts of Qur'an were written in a causal way such as without margins and these manuscripts were decorated with golden ink only. But later on, new innovative ideas emerged which yielded manuscripts of Qur'an with margins and more spaces were used for different indication marks. It can be designated as the second stage of innovation of Qur'anic manuscripts (QMs). In the next stage, ruled frames were introduced in the manuscripts of Qur'an that enclosed the text and design box.

The illuminated binding covers were fashioned during the medieval time and the Byzantine book covers were very rich in colour, style and design. The migration of craftsmen from Greece and Near East towards Italy resulted in the transfer of the skill of these craftsmen in this region.

Arabic Muslim captured the vast area after the fall of Constantinople. The art and culture of these areas were influenced by the Islamic culture. The Arabic binders preferred the light weight board with gilding instead of wooden box. Initially they adopted the conventional style (Mamluk binding) but later on they developed their own style.

Sometimes, the birth place of a technique did not receive any admiration or practice by the native people, and it may gain recognition, appreciation and importance in other regions. As there were many techniques which had been introduced by the Mamluk artists but now these are an integral part of the Herat art of binding.

It is pretty much easier to acquire the simplest techniques developed by others than to invent. It may cause the bias approach towards the techniques or skill because non-parental transmission of skill chooses the attractive ideas from the other societies. The king Humayun (the second Mughal ruler) brought the Persian court artists along with him from Iran to India. The paintings, illustration and manuscripts of Qur'an which were produced during the Mughal era have revealed a strong influence of Persian art.

1.1 Types of Innovative Decision


Roger identified the three types of decision which included optional, collective and Authority. Under the Lahore school of art, the Qur'anic manuscripts were illuminated with golden ink, bejewelled with white, red, pink, blue, green and yellow foliage patterns. Mostly the colour combination is not same in all manuscripts of Qur'an. This finding indicates the optional decision of the artist towards the colour pallet.

The collective approach basically made the one thought or a school of art. As the design layout of the Lahore school of art is different from the *Bihari* and *Kashmiri*. Later, these regional styles amalgamate and made the hybrid style of Qur'anic manuscripts.

Initially, the Qur'anic manuscripts were produced in large volumes which may be attributed to the royal patronage. Most of the court artists follow the pattern which is set or like by the administrative authority of that region and that may be due to the fact that majority of the people used to follow the rulers and do not intend to break the rules made by the ruler of the region. Certain persons generate new ideas and develop new things to gain the attention. One of these persons was Omer Akta who was one of the great court artist of king Timur. Omer Akta conceived an innovative idea to designs and develop a very small sized manuscript of Qur'an for the king, but it was not accepted by the king as it was a tiny manuscript of Qur'an and this manuscript was too

small to read. After this exercise, Omer Akta designed a very large sized manuscript of Qur'an to please and gain the attention of the king.

2. Rate of Adoption

It is noted that the relative speed of adoption is measured by the length of the time. The chronological study of the manuscripts of Qur'an from the collection of Ganjbkhsh library, Islamabad -Pakistan revealed that in the beginning, the production of Qur'anic manuscripts was quite less but it gradually increased and after gaining the peak, the production declined. The findings of the present study shows bell shaped () pattern regarding the production of the manuscripts of Qur'an.

The rate of the adoption also fluctuates due to the late adopter or the social behaviour of the adopter. The classification of the Qur'anic manuscripts and the chronological comparative analysis reveal different moods in different times. The high rate of adoption towards simple Qur'anic manuscript is noticed from 18th to 20th century. Regarding the illuminated Qur'anic manuscript, the adoption rate was high in the 17th to 18th century. There was low adoption rate for the simple manuscripts of Qur'an during the period of 14th to 16th century. Similarly, the adoption rate was low for the illuminated manuscripts of Qur'an during the 19th to 20th century.

3. Adoption Strategy

Regarding the adoption strategy, Everett Rogers indicated that the vital component for this process is the person of authoritative command, who commissioned the work, a leader, skill seeker or a researcher. He further emphasized that the new idea generated by the highly rank person in social system will be highly accepted and appreciated by the community.

Many workshops and libraries were associated with the royal and wealthy families of the Muslim world. The work was done under the supervision of the qualified calligraphers and artists. The workshop of Abu al Fazal had more than forty scribes for the work of Qur'anic manuscript's illumination and calligraphy. The Mughal rulers generously supported the art of the book or manuscript production in the core of Lahore and Agra. The Persian artists were always welcomed and honoured by the Mughal court.

4. Adopter's Type

The members of the social system which are included in the classification of the adopter are innovators, early adopters, early majority, late majority and laggards (Roger 2003). The state of incomplete and non-adoption is not considered as a type of adopter in this process of diffusion.

The innovators are the persons from society who took initiative towards the generation of new idea. Such as the technique of rubrication was used by the early Romans for the formal documentation and in medieval time it was associated to the religious books or revealed text. In the present study, the *Bihari* manuscripts of Qur'an showed the rubrication technique with modification.

Roger explained that the early adopters have received more limitation as compared to the innovators because of the social norms in vogue among the community. He further acknowledges the role of early adopter as a leader who is basically responsible for the innovative skills and plays a vital role in the implementation of the new idea. Roger admires the endeavours of the early adopter because they reduce the uncertainty for innovative idea in the process of diffusion. Their implemented work reaches towards the other people of the social system through the interpersonal network. For example,

the master scribe sets the rules and regulation for their pupil and without their permission (*Ijaza*) they never took initiative for experimental work. Most of the Muslim rulers himself was the great calligraphers, artist and illuminators and their court artist used to work under the patronage of the royal court. Acceptance of the innovative ideas by the royal courts made the way easy for the artists, calligraphers and illuminators.

The successful adoption of newly generated idea among the early adopters encourage the late adopters to adopt this idea because of economic and social benefits. The kind of this adopter is helpful to reduce the ambiguity regarding the newly conceived idea. Roger comments on the behaviour of late adopter that they feel it safe to adopt this innovation (Roger 2003: 284).

The fourth type of adopter is laggards, according to Roger this localized group of social system have the traditional view. Though they have no leadership role due to limited resources but, they may exert pressure on the society.

Chapter 3

Codicology of Qur'an Manuscript (QMs) Placed at Ganjbkhsh Library Islamabad (GBL)

Different writing materials have been used by peoples in different time periods which include stone, bones, clay tablets, animal skin, papyrus and paper. Among these materials, paper is the most suitable material for writings. The important characteristics of papers are that it is durable, easy to prepare, convenient to store. The development and use of paper enabled the artisan to form the book. The formation of the books opens the door for many designs and sizes.

Researchers have developed many frameworks for studying these codices. Codicology basically focuses on the structure and material of the book. Book has writing surface such as papyrus, parchment, vellum, birch bark and paper. It is also referred to as the organization of paper, layout and binding (Ali 2013: 67).

The present chapter deals with the characteristics and types (by name/material) of handmade paper, the process and the characteristics of binding styles of Qur'an manuscripts (QMs) available in the Ganjbkhsh Library, Iran-Pakistan Institute of Persian Studies, Islamabad. The quality of paper is based upon the thickness, thinness, pulp, fibre, moulds and skillfully handle the method of papermaking.

This chapter consists of the physical analysis of QMs to make typology and plot a chronology. It starts with the brief history of handmade paper and then evaluates it in the terms of trend, material and papermaking regions of the subcontinent¹. It further includes the physical analysis of the Qur'an manuscripts available in the Ganjbkhsh Library to the chronology that belongs to 14th till 20th century.

¹ Word Indian subcontinent or subcontinent used in this research, for India, Pakistan and Bangladesh.

1. A Brief History of Handmade Paper

The paper has different names in different languages, in Arabic it is called *Qirtas/Waraq* and *Kaghaz* in Persian. Papermaking is not the job of a single person. It needs manpower. It involves the whole family, a group of workers to fulfil the demand for paper. According to the Bloom, making good paper is an art and it can be done with warmer and drying conditions (Bloom 2017: 52).

For papermaking, raw material is easily available in the nature. It is taken from different plants, crops, bamboo, jute, silk, cotton and old textile rags etc. The famous explored materials for the better-quality paper were cotton, fabric, mulberry and bamboo stem pulp. The material which has been explored by the Indian artisan includes lily fibre, and aloe plant leaves for papermaking. These materials were very useful in obtaining the good quality paper (Royal 1855)

In the subcontinent, waste material was also used for papermaking. It means that the idea of reuse or recycling of material is not new. The paper quality is based on the beating of raw material while the paper durability depends upon the sheet composition. The invention of paper turns out to be the best medium of the writing of QMs. It can be considered as easy to prepare and inexpensive medium as compare to papyrus, vellum and parchment.

With the decline of parchment and papyrus, the paper gained great importance to production Qur'an manuscripts (Deroche 2006: 50). Deroche also discusses the popularity of the paper. He mentions that the Arabic paper was in high demand among the region of whole Mediterranean Basin" (Deroche 2006: 51).

The history of use of handmade paper by Muslims is quite old as it was used at the time of Caliph Umar (Bosh at all 1981: 26, Briquet 1888: 163). The use of paper moved very fast from one region to another. With the passage of time, the papermaking technique

was also improved by the Arabs which includes the enhancement of flax and other vegetable fibres with linen.

Baghdad was the main trade centre for paper supply during the period of 830-832 CE. After that, the same fame was achieved by the *Samarqandi* and *Khurasani* paper. Paper mills were established in Samarqand and Khurasan. The quality of paper was as fine as Chinese paper. Bloom mentions that the availability of the paper in the Muslim world increased in the tenth century about two centuries before the Mongol conquest of Baghdad. Many scholars including Al-Beruni are of the view that Arabs learnt the techniques of papermaking from Chinese captives at Samarqand. Al-Beruni has discussed this thing in his book *Kitab alhind*. Other opinion suggested that the Chinese paper came to the subcontinent via Nepal during 7th to 9th century (Bag 1982: 82). According to Ghori, the *Khurasani* paper was introduced to subcontinent (India, Pakistan and Bangladesh) due to the Arab conquest of Sindh in the 8th century (Ghori 1966: 135).

Persian handmade paper gained the market value in the subcontinent during the period of Mughal emperor Jalaluddin Muhammad Akbar but, it had to compete with the quality of *Kashmiri* and *Sialkoti* paper (produced in Punjab and Kashmir region) and later on with the European paper in the 19th century after the European colonialism in the subcontinent (Loveday 2001). The papermaking industry grew under the patronage of ruling class of subcontinent. Shams Siraj discusses in *Tarikh-i-Farozshahi* that scholars and artists were attracted by the court of Sultan Muhammad bin Tughlaq and Feroz Tughlaq due to the introduction of new industries in the Indian subcontinent. Paper industry also progressed at that time.

Initially papermaking industries were established in Lahore and Delhi (main political and cultural cities of *Sultanate* period). In Kashmir papermaking grew during the Sultan

Zain al Abdain's reign (1417- 1467). He took service of the Iranian, Turkish and Khurasanian artisan. Foreign artisans were encouraged and awarded by the Sultan as well. The people of Kashmir rapidly learnt papermaking techniques from these foreign artisans. Within a few years, *Kashmiri* paper emerged as the best quality paper as compared to others. Sultan of Kashmir sent this good quality paper as a present to the neighbouring countries. *Kashmiri* paper was highly recommended by the artist and scribes for manuscript production. *Kashmiri* paper was made from the pulp of rags and hemp fibre (Fig. 3). Lime and soda were used as a bleaching agent. The pulp was diluted with water, extracted on a frame of reeds and put it on a smooth surface. The paper sheet was pressed and dried in sunlight. Pumice stone was used for the polishing and rice water for the glaze. Finally, it was polished with onyx stone and the paper became ready for the use (Loveday 2001).

Other papermaking centres were established during period of the 16th to 17th century at Sialkot in Punjab, Zafrabad town in Janpur district, Oudh, Bihar town, Arwal town, Hooghly in Bengal, Ahmedabad, Patan in Gujrat, Aurangabad and Mysore. These centres had a significant share in the economy of the subcontinent. Punjab was the vital region for the production of high-quality paper. Many varieties ² of papers were produced in the Sialkot. The paper was thick and white in colour. It was admired and demanded by the artisans of Lahore. A best quality of paper produced in Zafrabad (it was known as *Kaghzi Shehr*). This region was famous for fine, strength and glossy paper that was made of bamboo pulp. Two types of paper (polished and unpolished) were produced there. According to the Buchanan³, paper was produced by the pulp of pat/ jute in Bengal and Bihar. Paper was categorized due to its type, size, colour and

² Different brands of Sialkoti such as Man Singhi, Nim Hariri, Khasah-i- Jahangiri etc.

³ Dr. Buchanan, a botanical survey of the provinces of Bengal and Bihar.

quality. The brown paper was mostly prepared for the business communities/ account books and thick or thin paper was used for formal writing. *Zarafshani* paper (produced in Ahmedabad) was used for the illuminated/ formal manuscripts (Ghori 1966: 138). Ali Muhammad Khan discusses in the *Mira-i- Ahmadi* (a Persian history of Gujrat) that the *Ahmadabadi* paper was in great demand in the home country as well as abroad⁴ due to its whiteness, gloss and grace in spite of certain defect⁵. Daulatabad and Aurangabad were important papermaking cities which became the capital cities in the Mughal regime. Main features of *Daulatabadi* paper are its glossiness and durability. Another kind of paper which is known as Balapur paper has been famous due to its distinguished five kinds with different colours in 15th -16th century. During the period of Tipu Sultan reign, the artisan of Mysore developed a unique technique in which the grains of gold leaves were mixed in the pulp/ spread over the surface of the paper. These papers were for royal use (Khan1939: 464). The paper decorating techniques were also developed in the fifteenth century.

2. A Variety of Handmade Paper Styles of QMs (Category “A” and B)

Paper plays a fundamental role in the history of the Qur’an script. Papermaking technique underwent some modifications in the process of transformation from one region to another area which may be attributed the locally available material which may has been utilized to produce the quality paper. With the passage of time along with refinement of human skill in the paper making, the quality of paper is enhanced day by day. The improvement in the quality of paper may be due to exhibition of better performance to preserve the religious scriptures. The paper was also imported from different regions of the subcontinent just to maintain the quality of work. This activity

⁴ It is demanded by the Arab countries and Turkey.

⁵ City is dusted by the desert, during manufacturing dust particles stuck into the pulp and their appearance is obvious in the paper.

had opened the doors for trade and healthy environment of competition inside the subcontinent. The variety of paper signified the strength of paper trade within the subcontinent as well as abroad (Ghori 1966).

Handmade paper is known by different names. Initially, the terminology was referred to the manufacturing regions such as *Samarqandi*, *Baghdadi*, *Herati*, *Khurasani* and *Kashmiri* etc.

The monopoly of *Kashmiri* paper was accepted by the scribes due to its best quality in the late 15th century in the subcontinent. The Qur'an manuscripts indicate that the most demanding paper was *Samarqandi* in the beginning but later on *Kashmiri* paper reduced its market value a little bit.

The Qur'an manuscripts have different colours of paper such as buff (Fig. 4), light/dark yellow, brown and white. The natural colour of the handmade paper was buff or off-white (Loveday 2001). Gradually, dying techniques were introduced to change the surface colour of the paper. Dyeing method has provided monochromatic tints and shades. Paper sheets were dipped into the colour for several hours for a darker shade. There is no evidence of colour being added into the pulp in the The Qur'an manuscripts collection of Ganjibkhsh Library, Iran-Pakistan Institute of Persian Studies, Islamabad. Organic colours were used to colour the paper. Another technique of colouring the paper was marbling. In Persia, marbled⁶ papers were fashioned in early 16th century which were introduced into Europe and subcontinent by the end of this century. The tradition of this art is still present in Turkey. Paper came from the Europe to be marbled in Turkey as well (Deroche et al. 2006: 61,248-249). It is noticed that the use of marbled paper is very rare in the Qur'an manuscripts (QMs) present in the Ganjibkhsh Library

⁶ Colours spread on diluted glue or starch, putting a damp paper on it and all the colour lifted on paper called marbling technique.

(Iran-Pakistan Institute of Persian Studies) Islamabad. This type of paper is just seen on the inside cover of the QMs.

The paper is being coloured for several reasons, such as beautification, aesthetic and symbolic significance. White paper is also produced in the subcontinent. For the whitening of paper, a bleaching agent is added into the pulp and left for many hours then washed with fresh water. The technique of whitening the paper has been noticed in the collection Qur'an manuscripts which are present in the Ganjibkhsh Library (Iran-Pakistan Institute of Persian Studies) Islamabad. The paper whitening is less evident in the Qur'an manuscripts of 15th century and it was more commonly used in the Qur'an manuscripts of 18th to 19th century.

The present study reveals that Qur'an manuscripts present in the Ganjibkhsh Library have a wide range of paper types which includes two famous types (*Samarqandi* and *Kashmiri*).

Both papers have a major difference of making techniques, *Samarqandi* paper is made from the cotton fibre (Fig. 1-2) whereas *Kashmiri* is made from hemp fibre (Figs.3-4). This material difference has not affected the quality of a paper.



Figure. 1 it indicates the chain lines (yellow lines) of mould. QMs Acc. No 1530, year of production 1785, total pages 1108, paper size 6x19x28.5. Thick *Samarqandi* Buff paper.

Different nature of work (calligraphy, illumination and dyeing) has been done on the thick and thin quality of both papers. A fine and delicate paper was made by well beaten and diluted pulp in fresh water. In contrast, delicate *Samarqandi* buff is thin and soft as compared to the delicate *Kashmiri* buff. *Samarqandi* paper maintains its smoothness due to the soft and thin fibre of cotton (Fig. 1-2).



Figure. 2 A soft and thin paper, QMs Acc. No 1618, year of production is 1494, total pages 464, paper size 22.5x34. Delicate *Samarqandi* Buff.

The structure of *Samarqandi* paper is fine and only straight lines are seen which maybe the lines of the mould. The moulds are usually made of reed.

The paper produced in the Near and Middle East has a set of chain lines⁷, which are placed together. However, Indian paper shows the grouping of a double set of the chain lines on the surface of the paper (Fig. 2). By the 12th century a new mould of metal wire along with identical marking was introduced in Spain (Bosh et al 1981: 29).

⁷ These lines appeared due to the use of some sort of woven mould for papermaking.

It indicates that different moulds were used in different territories in the papermaking industry. In the present study, the manuscripts of Qur'an of *Kashmiri* paper have revealed some texture of fibre which is found after close observation (Fig. 3-4).



Figure. 3 Pattern of fibre is shown on the surface of paper, Manuscript 10091. Production year is 1785, total pages 928, page size 6x22x37.5. Paper is thick *Kashmiri* Buff.

It is expected for a handmade paper to be burnished before writing. Gelatin sizing⁸ was applied to European manuscripts while Asian manuscripts are sized with vegetable starch or glue for making a nonabsorbent/burnished surface. There are many techniques for a burnishing such as equal quantity of pure chalk starch and water, which is heated as a thick solution then filtered and applied.

The solution is applied to the paper by hand on both sides (after drying the one side). When the paper dries then the paper is cleaned with a soft wet cloth. Rice starch, polishing stone and mussel shell is also used for a burnishing process (Ghori 1966:

⁸ Substances applied to the paper surface to make it smooth and nonabsorbent.

135). The burnishing process varies from one region to another and may depend upon the choice of the papermaker, dealer, calligraphers and scribe.

The present study shows that the manuscripts of Qur'an present in the GBL are sized with rice and wheat starch which is a quite common feature of Indian manuscripts. Most of manuscripts of Qur'an have a lustrous surface (Fig. 3) which may be attributed to the effective utilization of sizing and burnishing. These Qur'an manuscripts (Fig. 4) have oblique lines rather than horizontal or vertical.



Figure. 4 Texture (rib shadows) on the paper surface, QMs Acc. No 4599. Delicate *Kashmiri Buff*, page size 23x35, total pages 452 and production year is 1785.

Oblique lines refer to the texture of a mould. According to the Loveday, Indian papermaker used woven moulds of dried grass and horsehair.

The pulp was laid on the surface of the mould. The pattern developed when the pressure built up on the mould then pulp draining through its cover.

In this process, the texture of the mould (called rib shadows) was produced on the surface of the paper (Loveday 2001).

Laid lines, rib shadows and chain lines are the features of the handmade paper as Baker mentions that rib shadows can be seen in the 14th century manuscripts of Persia and in the Arabic manuscript of 16th century.

In present study the Qur'an manuscript Acc. No 4599 reveals the rib shadows whereas QMs Acc. No 10091 has only fibre texture on the surface. Both QMs are from the 18th century.

It means different materials were used for mould manufacturing in the subcontinent. Indian paper is inspired from the Arabic and Persian paper, so it has some common features from both sides.

Loveday explains the Persian paper's quality and technique in two chronological periods. First, it was from the 7th till 14th century and second, from 15th till 19th century. She divided them into two groups because she examined the papermaking techniques that has been changed from one period to another. According to her study, the paper from the first period was not of best quality, because this period was the experimental period for papermaking, whereas the second period has a fine and best quality product of handmade paper. The same situation prevailed in the subcontinent; the paper quality enhanced by the passage of time. Many more materials were also explored for achievement of the best quality paper.

In the present study, the Qur'an manuscript typology has been designated as group "A" and "B" on the basis of translation. Group "A" Qur'an manuscripts includes Arabic text with Persian translation along with explanation and group "B" includes Arabic script of Qur'an without translation. The paper types used in the Qur'an manuscripts present in the GBL are evaluated. The results are presented in table one and depicted in the graph one. The variety of paper types used in the manuscripts of group "A" may be attributed to the availability of a different kind of paper during the different periods.

Table. 1 Distribution of Paper Types identified in the group A (91 manuscript of Qur'an with translation and explanation)

Paper Type	Frequency	Paper Type	Frequency
<i>Samarqandi</i> Buff	1	English Buff	1
Brown	2	<i>Kashmiri</i> Buff	2
Delicate dark yellow <i>Herati</i>	1	<i>Sapahani</i>	1
Delicate dark yellow <i>Samarqandi</i>	1	Thick brown <i>Kashmiri</i>	1
Delicate English Buff	1	Thick Buff	1
Delicate <i>Kashmiri</i>	2	Thick <i>Kashmiri</i>	1
Delicate <i>Kashmiri</i> Buff	24	Thick <i>Kashmiri</i> Buff	10
Delicate <i>Samarqandi</i> Buff	23	Thick <i>Samarqandi</i> Buff	14
Delicate White	1	Thick <i>Sialkoti</i> Buff	1
Delicate yellow <i>Kashmiri</i>	1	Thick White <i>Samarqandi</i>	1
		Yellow	1
Total	91		

Table. 1 shows the *Samarqandi* paper and its types identified in a total of 40 QMs, *Kashmir* and its types, total QMs 41 and miscellaneous 10 QMs.

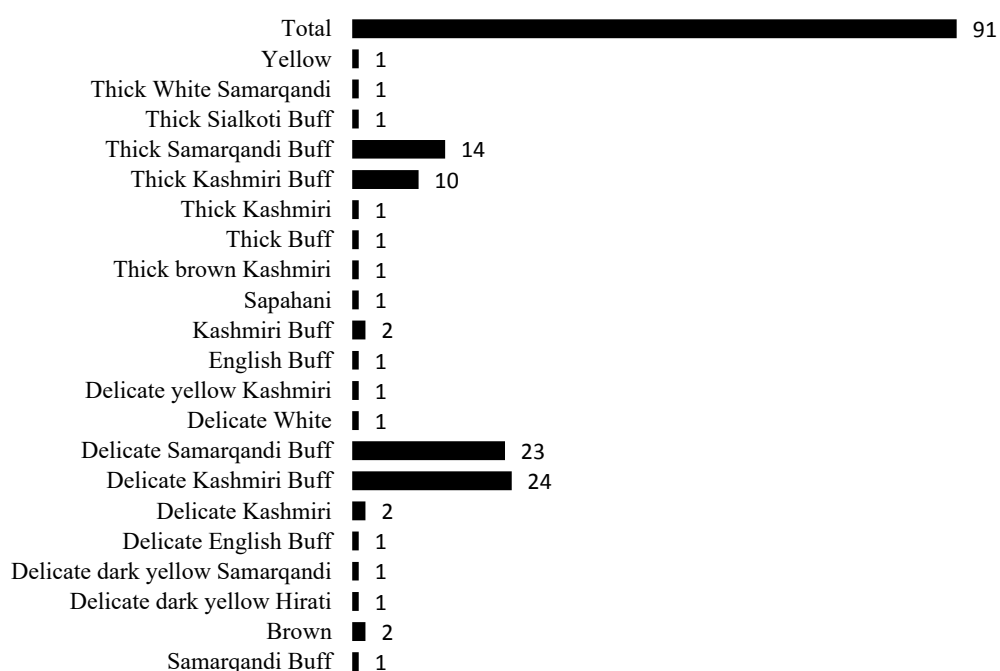
Total twenty-four manuscripts are delicate *Kashmiri* buff, ten thick *Kashmiri* and one thick yellow, twenty-three delicate *Samarqandi* buff, fourteen thick *Samarqandi* buff, one *Samarqandi* buff, *Samarqandi*, thick white *Samarqandi*, and delicate dark yellow *Samarqandi*. Chronology of these QMs indicates that *Samarqandi* paper (all types) is used from 14th century till late 18th century.

At the same time *Kashmiri* paper (all types) is used for QMs from late 16th century till late 19th century. English and *Sapahani* paper start from the mid-18th century onward. It reveals that the variety of papers increased over the period of time which may be due to replacement of one type with the better quality of the other type. Free working environment or skill exchange program may be the causative factors for the availability of variety of papers in the subcontinent.

Loveday expressed different opinion. She is not in the favour of the view that time and geographical conditions are linked to the to the variety of handmade paper in a region.

In her opinion, it is entirely dependent on the human behaviour towards refining the skill. She further explains that it could be affected by the struggle of a papermaker to meet his daily assigned work (Loveday 2001).

The graph I show the paper type of group “A” given below.



Graph. 1 it shows the numbers of paper types. It is generated in Microsoft Excel 2003

Graph 1 indicates the whole summery of table 1. A total of 6 types has been identified in this graph. Two major types have further subtypes. These major types created the comparison between the demand of delicate *Samarqandi* buff and delicate *Kashmiri* buff. The results indicate that thick *Samarqandi* was in more demanded then thick *Kashmiri* buff. The result shows that the most prominent paper is *Kashmiri* and *Samarqandi* in the GBL collection. Group B also has a certain paper type. Typology of group B QMs is shown in table 2.

Table. 2 Distribution of Paper type of QMs - Group B

Paper Type	Frequency	Paper Type	Frequency
Delicate <i>Samarqandi</i> Buff	74	English Buff	2
Delicate <i>Kashmiri</i> Buff	62	<i>Sapahani</i>	2
Thick <i>Samarqandi</i> Buff	43	Delicate English White	2
Thick <i>Sialkoti</i> Buff	35	Delicate <i>Kashmiri</i>	2
Thick <i>Kashmiri</i> Buff	26	Thick <i>Sialkoti</i>	1
Delicate <i>Sialkoti</i> Buff	12	Delicate Brown Herati	1
Buff Paper	6	Delicate Dark Yellow	1
Delicate <i>Samarqandi</i>	8	Thick, Delicate Yellow	1
Brown Paper	4	Thick English Paper	1
Thick English Buff	4	Thick English White	1
Thick <i>Samarqandi</i>	4	<i>Khan Balghi</i>	1
Delicate English Buff	5	<i>Bukhari</i>	1
Thick <i>Kashmiri</i>	4	White Delicate	1
Delicate Dark Brown	2	Yellow	1
Total	305		

Table. 2 indicates the total numbers of QMs 305 and typology of paper.

Table 2 shows a variety of paper and their subtypes: *Samarqandi* paper (number of QMs 129), *Kashmiri* paper (QMS 94), *Sialkot* paper (47 QMs) and English paper (11 QMs) and other QMs 24. The result shows that *Samarqandi* paper has high frequency as compared to *Kashmiri* paper but there is no uniformity or restriction for the scribe to choose a specific paper. There is a possibility that the *Samarqandi* paper techniques were followed by the local artisan and they carry the name of *Samarqandi* paper for their product. The current study makes the comparison of group “A” and “B” due the paper types and difference of scribe’s choice. In “A” group most demanded paper is *Kashmiri* paper and in group “B” it is *Samarqandi*. Group “A” has many manuscripts of large size whereas group “B” has a few and have less size as compared to group “A”. There are many reasons for large size of “A” group such as scribe needed more surface of paper for translation, explanation, indicators and *sura* heading that occupy more

space. Large sized Qur'an have mostly been produced for the students and the scholars. English paper is good in quality but less demanded by the artist or may have not been imported in large quantity. The most significant reason is the watermark in the paper. English paper has different watermarks such as geometric signs of the cross and zoomorphic symbols. The copying of the Arabic text of a Qur'an on these watermarked papers was not acceptable to the Muslim community. But later on, these water marks of the European paper were modified as per requirements of customers. Halen Loveday narrates that the export quality of English/ European papers was made according to the buyer's customs. These papers were sized, burnished as done in the Central and South Asia in 18th century and the watermarks were in the shape of the moon, star and a crown (Loveday 2001: 26). In the present study, the Qur'an manuscripts which belong to late 19th and beginning of 20th century are on English paper and these have no watermark.

3. Chronology of Manuscript of Qur'an (QMs) Group A and B

The present study formed the chronological periods of the Manuscript of Qur'an which are present in the Ganjbkhsh Library, Iran-Pakistan Institute of Persian Studies, Islamabad. This chronology shows the different attributes of the Manuscript of Qur'an. Variation in paper quality and sizes are present in these QMs. For better understanding, the Manuscripts of Qur'an are divided into eight periods. For each period the Manuscripts of Qur'an are assessed for the following features which include total frequency of QMs, page size and status, either it is a complete manuscript, or it is missing some pages. Table 3A indicates the first period of group A.

Table. 3A Manuscript of Qur'an (Group A) First Period 1300-1399 CE

S. No	QMs Ace. No	Paper Type	Page Size (cm)	Status
				Complete
1	1598	Thick <i>Samarqandi</i> Buff	23x30.5	No
2	1599	Delicate <i>Samarqandi</i> Buff	22x33.5	No
3	4007	Thick <i>Samarqandi</i> Buff	27.5x36.5	No

4	4170	<i>Samarqandi</i> Buff	22.5x33.5	No
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Table. 3A shows the total numbers (4) of the QMs. All the manuscripts are the types of *Samarqandi* paper, a very famous paper in the history of papermaking.

Table 3A indicates the characteristics of *samarqandi* paper as thick and delicate, which was used for the Manuscript of Qur'an present in the collection GBL. The frequency of QMs is very low in this period. Range of paper sizes varies from 22x33.5cm (low) to 27.5x36cm (high). Generally, there is lack of uniformity in sizes and paper quality. The original colour of the paper is buff (light skin/ off-white). These papers are not coloured, only sized and burnished. The status shows that all QMs had lost some of their pages. Approximately, group A (table 3A) have 4 percent QMs related to the first period.

Table. 3B Manuscript of Qur'an

S. No	QMs Ace. No	Paper Type	Page Size (cm)	Status Complete
1	781	Delicate <i>Herati</i>	13x23	Yes
2	986	Thick <i>Samarqandi</i> / Khanbalki	21x30.5	Yes
3	9559	Thick <i>Samarqandi</i>	20x29	No
4	13790	Thick <i>Samarqandi</i> Buff	18x24	No

Table. 3B shows the frequency of paper and page sizes.

In this subgroup, the numbers of QMs and paper quality are comparable to some extent, but the sizes and status are not same. The page size of QMs ranges from 13x23cm to 21x30.5cm. Status shows that the 50 percent of QMs are complete. *Herati* paper is rare in GBL collection of QMs; just one manuscript is identified in the first period of group B. For the small size of QMs, 13x23 cm size of the paper is used. The second period (1400 – 1499 CE) Group A results are shown in table 4A.

Table. 4A Manuscript of Qur'an (Group A) Second Period 1400-1499 CE

S. No	QMs Ace. No	Paper Type	Page Size (cm)	Status Complete
1	787	Thick <i>Samarqandi</i> Buff	30x54	No
2	824	Thick White <i>Samarqandi</i>	30x54	No

3	1597	Delicate <i>Samarqandi</i> Buff	20x28	No
4	1618	Delicate <i>Samarqandi</i> Buff	22.5x34	No
5	1615	Delicate <i>Samarqandi</i> Buff	13x21	Yes
6	320	Delicate <i>Hindi Hinai</i>	25x33.5	No

Table. 4A indicates the variation of QMs of second period of group A.

It is noticed in table 4A that page size is increased to 30x54 cm while in the previous table 3A, the largest size was 27.5x36.5 cm. The causative factors for this change may include the change in mould size, trend and scribe demand or more space needed for illumination of QMs. A different kind of paper is also identified which is known as *Hindi Hinai*. It resembles the *Kashmiri* paper. Status of these manuscripts shows that only 16 percent of QMs are complete and 84 percent have lost some pages. The number of manuscripts is also increased in this period.

Table. 4B Manuscript of Qur'an (Group B) Second Period 1400-1499 CE

S. No	QMs Ace. No	Paper Type	Page Size (cm)	Status Complete
1	13826	<i>Samarqandi</i> Buff	22x32	Yes
2	988	Thick <i>Samarqandi</i> Buff	26x35	Yes
3	2245	Thick <i>Samarqandi</i> Buff	19.5x26	Yes
4	3587	Delicate <i>Samarqandi</i> Buff	12x20	No
5	4738	Delicate <i>Samarqandi</i>	11.5x17	Yes
6	5331	Delicate <i>Samarqandi</i>	26x33	No
7	13667	Thick <i>Samarqandi</i>	22x30	No
8	13791	Thick <i>Samarqandi</i> Buff	16.5x25	No

Table. 4B has all the manuscripts that used the *Samarqandi* paper.

Table 4B indicates the results of Manuscript of Qur'an (Group B) from Second Period 1400-1499 CE. In this subgroup, all the manuscripts used the *Samarqandi* paper. The largest size of paper identified in this subgroup is 26x35cm which is less than the largest size of group A of the same period. The smallest size is 11.5x17 cm which is also less than the smallest size of group A of same time period. The variation in size among the groups A and B is understandable as the translation along with the explanations need more space which requires large size paper. But the variation in sizes within the same

group is a phenomenon and raises the questions about this lack of uniformity. The possible explanation includes choice of transcriber, demand of customer, available size of paper or for a particular age group as in advanced stage of life, the large size may be more easily readable. Physical analysis of QMs Acc. No 988, shows that the manuscript is written *Muhaqaq Amikhta*, (a big script style) 12 lines per page with a total page of 720 and every casual page has 6cm to the 8cm marginal frame. Another QMs Acc. No. 13826 (22x32) written in *Thuluth*, 11 lines per page with marginal frames of 5cm to 6cm and its total pages are 776 which denotes that marginal frames and the large script needs more space, more pages or large size paper. A small size QMs 11.5x17 has 15 lines per page with 4cm margins and its total pages are 608. Comparatively, small size QMs have fewer pages than the both large sized QMs, because the small sized QMs have several text lines with less marginal space, and these are written in standard size *Naskh*. The status of QMs in this table (4B) shows that fifty percent of the QMs are complete and in fifty percent QMs, pages are missing. In this subgroup, during this time period, still there is a variation in the use of *Samarqandi* paper. This chronological period did not show the presence of *Kashmiri* paper.

Table. 5A Manuscript of Qur'an (Group A) - Third Period 1500-1599 CE

S. No	QMs No	Acc. Paper Type	Page Size (cm)	Status Complete
1	2069	Delicate <i>Samarqandi</i> Buff Delicate dark yellow	17x30	Yes
2	623	<i>Samarqandi</i>	13x20	No
3	682	Thick brown <i>Kashmiri</i>	21x33.5	Yes
4	773	Delicate <i>Samarqandi</i> Buff	12.5x34	Yes
5	825	Delicate dark yellow Herati	16x22.5	Yes
6	4100	Delicate <i>Kashmiri</i> Buff	15x25.5	No
7	4107	Thick <i>Samarqandi</i> Buff	22x33.5	Yes
8	5176	Thick <i>Kashmiri</i> Buff	18.5x30	Yes

9	6623	Delicate <i>Samarqandi</i> Buff	18x27	No
10	6891	<i>Kashmiri</i> Buff	13x23	Yes
11	13671	Delicate <i>Samarqandi</i> Buff	13x24.5	No
12	3603	Delicate <i>Kashmiri</i> Buff	21x34	Yes

Table. 5 A shows the increased numbers of QMs in this (third) period of group A.

Table 5A presents the third period of group A. In this subgroup, the collection has some QMs that are written on *Kashmiri* paper. According to this periodization, 16th century is the introductory century for the *kashmiri* paper. The frequency of available QMs in the *group* is a little bit higher than the previous period. The result shows that the status of QMs is complete in 66.66 percent of manuscripts. *Kashmiri* paper has been considered as good as *Samarqandi* paper. That is why its overall representation in this *group* is 41.66 percent. Although the QMs have covered the period of a whole century, the used paper quality is similar to the previous centuries to some extent. It shows that the production of Qur'an manuscripts is either on the *Samarqandi* or *Kashmiri* paper. Other types of paper are also detected in this study, but their frequency is very low (*Herati, Hindi Hinai* etc.). The largest size of paper which is identified in this *group* is 21x34cm and smallest size of QMs is 13x20 cm.

Table. 5B Manuscript of Qur'an (Group B) - Third Period 1500-1599 CE

S. No	QMs Acc.No	Paper Type	Page Size(cm)	Status Complete
1	4166	Delicate <i>Samarqandi</i> Buff	7.5x12.5	Yes
2	324	Delicate <i>Samarqandi</i> White	10.5x17.5	Yes
3	1031	Delicate <i>Samarqandi</i> Buff	14.5x18.5	Yes
4	1524	Thick <i>Samarqandi</i> Buff	11.5x18	Yes
5	2434	Thick <i>Samarqandi</i>	20.5x27	No
6	2686	Delicate <i>Samarqandi</i> Buff	14x25.5	No
7	2844	Delicate <i>Samarqandi</i> Buff	14x23.5	No
8	3073	Thick <i>Samarqandi</i> Buff	20x26.5	No
9	3100	Delicate <i>Samarqandi</i>	24x37	Yes
10	3510	Thick <i>Samarqandi</i> Buff	17x23	No

11	3646	Delicate <i>Samarqandi</i> Buff	14x25	No
12	3738	Delicate <i>Samarqandi</i> Buff	19x32	Yes
13	3856	Delicate <i>Samarqandi</i> Buff	14.5x20.5	Yes
14	3849	Thick <i>Samarqandi</i> Buff	14x20.5	Yes
15	4008	Thick <i>Samarqandi</i> Buff	25x35	No
16	4165	Delicate <i>Samarqandi</i> Buff	8x16.5	No
17	4845	Delicate <i>Samarqandi</i> Buff	7.5x10	No
18	4846	Delicate <i>Samarqandi</i>	7.5x11	Yes
19	5063	Thick <i>Samarqandi</i> Buff	13x19	No
20	6067	Delicate <i>Samarqandi</i> Buff	14x20	Yes
21	6517	Thick <i>Samarqandi</i> Buff	13.5x23	Yes
22	899	Thick <i>Samarqandi</i> Buff	14.5x24	Yes
23	7191	Delicate <i>Samarqandi</i> Buff	21.5x32.5	Yes
24	7310	Delicate <i>Samarqandi</i> Buff	17x23	No
25	7891	Delicate <i>Samarqandi</i> Buff	14.5x20	Yes
26	7937	Delicate <i>Samarqandi</i> Buff	10x16	Yes
27	1586	Thick <i>Samarqandi</i> Buff	14x20.5	No
28	11596	Thick <i>Samarqandi</i> Buff	14x20	Yes
29	12071	Delicate <i>Samarqandi</i> Buff	19x28	Yes
30	12888	Delicate <i>Samarqandi</i> Buff	8x13	No
31	13785	Thick <i>Samarqandi</i> Buff	15x20	No
32	13786	Thick <i>Samarqandi</i> Buff	17x26	Yes
33	13804	Delicate <i>Samarqandi</i> Buff	5x8.5	Yes
34	3077	Delicate <i>Samarqandi</i> Buff	8.5x13.5	Yes

Table. 5B shows the result of QMs belong to group B.

Table 5B indicates the results of B group in the third Period of 1500-1599 CE. It shows that a total of 34 QMs were available in the GBL which were from this period. Relatively the data of this *group* is more than the previous periods. Only one paper type *Samarqandi* (with sub types, thick, thin, delicate etc.) is identified in all the QMs analysed in this period. An interesting finding in this study is a variation of paper sizes. The smallest size is 5x8.5cm while the larger sizes are 24x37cm and 25x35cm. The Status of these manuscripts shows that 58.82 percent QMs are complete. In this *group*, the types of paper used in these manuscripts are delicate *Samarqandi* paper (61.8%)

and 38.2 percent thick *Samarqandi* buff paper. The next period starts from 1600 to 1699 CE. The 17th century is very important century in the context of patronage for illuminated QMs in the subcontinent. In this period, the table 6A has shown the addition of delicate white paper and thick buff.

Table. 6A Manuscript of Qur'an (Group A) -Fourth Period 1600-1699 CE

S. No	QMs Acc. No	Paper Type	Page Size (cm)	Status Complete
1	2698	Thick <i>Samarqandi</i> Buff	20.5x28.5	Yes
2	3119	Delicate <i>Kashmiri</i> Buff	12x17.5	Yes
3	2209	Thick Buff	17x27	No
4	3229	Delicate <i>Kashmiri</i> Buff	16x26.5	Yes
5	310	Delicate White	15.5x5.5	Yes
6	2064	Delicate <i>Kashmiri</i> Buff	17x26.5	Yes
7	2503	Delicate <i>Samarqandi</i> Buff	18x27	Yes
8	2519	Delicate <i>Kashmiri</i> Buff	18x27	Yes
9	2530	Delicate <i>Samarqandi</i> Buff	19x32	Yes
10	2545	Delicate <i>Samarqandi</i> Buff	17.5x28	Yes
11	2547	Thick <i>Samarqandi</i> Buff	14x20.5	No
12	2951	Delicate <i>Kashmiri</i> Buff	14x23	Yes
13	3330	Delicate <i>Samarqandi</i> Buff	19x25.5	Yes
14	4106	Thick <i>Samarqandi</i> Buff	16x26	Yes
15	6224	Delicate <i>Samarqandi</i> Buff	18x24	No
16	6489	Delicate <i>Samarqandi</i> Buff	13x22.5	Yes
17	9243	Delicate <i>Kashmiri</i> Buff	18x28	No
18	10575	Thick <i>Kashmiri</i> Buff	17.5x25	Yes
19	11559	Delicate <i>Kashmiri</i>	19.5x26.5	Yes
20	11629	Delicate <i>Samarqandi</i> Buff	13x22	Yes
21	12627	Thick <i>Samarqandi</i> Buff	15.5x29	Yes
22	13781	Delicate <i>Samarqandi</i> Buff	14x21.5	Yes
23	513	Delicate <i>Samarqandi</i> Buff	17x30	Yes

Table. 6A indicates that *samarqandi* paper is more demanded than the *Kashmiri* paper.

It is also observed that the *Samarqandi* paper is available in big sized paper sheet such as 17x30, 20.5x28.5 and 19x32cm. Whereas small sheets of *kashmiri* paper

(12x17.5cm) was used in this period. Overall paper sizes are medium and large instead of small. The status shows that 82.60 percent of QMs are complete. The lesser number on *Kashmiri* paper indicates that the monopoly of *Samarqandi* paper may have been acknowledged by the customer.

During this time period, in the manuscripts of group B (table 6B), there is an addition of new types of papers such as *Khan Balghi*, white English paper, Brown *Herati* and *Sialkoti* paper. According to the Mukesh Kumar the *Sialkoti* paper was being produced for the Mughals in Punjab (Kumar 2005). This comment supported the quality and availability of *Sialkoti* paper.

Table. 6B Manuscript of Qur'an (Group B) -Fourth Period 1600-1699 CE

S. No	QMs Acc. No	Paper Type	Page Size (cm)	Status Complete
1	1791	Delicate <i>Samarqandi</i> Buff	12x18	Yes
2	13280	Delicate <i>Samarqandi</i> Buff	8.5x14	Yes
3	1406	Delicate Yellow <i>Kashmiri</i>	25x20	Yes
4	2390	Thick <i>Samarqandi</i> Buff	20x31.5	No
5	4655	Delicate <i>Sialkoti</i> Buff	14.5x20	Yes
6	12725	Delicate <i>Samarqandi</i> Buff	17x28	Yes
7	1176	Delicate <i>Samarqandi</i> Buff	12.5x20.5	Yes
8	1523	Delicate <i>Sialkoti</i> Buff	18x23	Yes
9	1601	Thick <i>Kashmiri</i> Buff	23x35.5	Yes
10	1612	Delicate <i>Sialkoti</i> Buff	8.5x12	Yes
11	1614	Delicate <i>Samarqandi</i> Buff	11.5x19	Yes
12	1616	Delicate <i>Samarqandi</i> Buff	12x20.5	Yes
13	1627	Delicate <i>Samarqandi</i> Buff	28x40	No
14	1631	Thick Kashmir	28x43	Yes
15	2051	Thick <i>Samarqandi</i> Buff	18x24	No
16	2070	Delicate <i>Kashmiri</i> Buff	7x11	Yes
17	2075	Thick <i>Kashmiri</i> Buff	15x24	Yes
18	2079	Thick <i>Kashmiri</i> Buff	16.5x23.5	Yes
19	2275	Delicate <i>Kashmiri</i> Buff	9x16	Yes
20	2350	Thick <i>Samarqandi</i> Buff	21.5x30	Yes

21	2468	Thick <i>Kashmiri</i> Buff	17x24	No
22	2583	Delicate <i>Samarqandi</i> Buff	11.5x18.5	Yes
23	3070	Thick <i>Samarqandi</i> Buff	14x24	No
24	3450	Thick <i>Samarqandi</i> Buff	18.5x30.5	Yes
25	3684	Delicate <i>Kashmiri</i> Buff	16x26.5	No
26	3737	Delicate <i>Samarqandi</i> Buff	16x20	Yes
27	4192	Thick <i>Samarqandi</i> Buff	21x31	Yes
28	4195	Delicate <i>Kashmiri</i> Buff	10.5x16.5	Yes
29	4477	Delicate <i>Samarqandi</i> Buff	12x19.5	Yes
30	4508	Delicate <i>Samarqandi</i> Buff	7.5x12	No
31	4509	Thick <i>Samarqandi</i> Buff	9.5x17	No
32	4542	Delicate <i>Kashmiri</i> Buff	8.5x17	Yes
33	4739	Delicate <i>Samarqandi</i> Buff	11.5x21.5	Yes
34	4923	Delicate <i>Kashmiri</i> Buff	12x20	No
35	4948	Delicate English White	15x21.5	Yes
36	5065	Delicate <i>Kashmiri</i> Buff	17x26	Yes
37	5108	Thick <i>Samarqandi</i> Buff	12x16	Yes
38	5138	Delicate <i>Samarqandi</i> Buff	11.5x18	No
39	5671	Delicate <i>Samarqandi</i> Buff	16.5x21	No
40	5872	Delicate <i>Samarqandi</i> Buff	9x16	Yes
41	6110	Delicate <i>Samarqandi</i> Buff	10x18	Yes
42	6247	Thick <i>Samarqandi</i> Buff	14x20.5	No
43	9565	Thick <i>Samarqandi</i>	17.5x26.5	Yes
44	7412	Delicate <i>Samarqandi</i>	11x17	No
45	9570	Delicate <i>Samarqandi</i> Buff	11.5x18.5	Yes
46	10071	Delicate <i>Kashmiri</i> Buff	11x18	Yes
47	10581	Thick <i>Kashmiri</i> Buff	31x41	Yes
48	10583	Thick <i>Kashmiri</i> Buff	20.5x31.5	No
49	10584	Thick <i>Kashmiri</i> Buff	21.5x32	No
50	10585	Thick <i>Kashmiri</i> Buff	21x31	No
51	11528	Thick <i>Samarqandi</i> Buff	8.5x13.5	No
52	11728	Thick <i>Samarqandi</i> Buff	16x25	Yes
53	11745	Delicate <i>Samarqandi</i> Buff	17x26	Yes
54	12295	Thick <i>Samarqandi</i> Buff	15.5x21.5	No
55	12626	Delicate <i>Samarqandi</i> Buff	11x19	Yes
56	12885	Thick <i>Samarqandi</i> Buff	16x26	Yes

57	12886	Delicate <i>Samarqandi</i> Buff	9x16.5	Yes
58	13312	Thick <i>Samarqandi</i> Buff	24x34	Yes
59	13609	Delicate <i>Samarqandi</i> Buff	14.5x23	No
60	13666	Delicate <i>Samarqandi</i> Buff	16x25	Yes
61	13782	Delicate <i>Samarqandi</i> Buff	14x22.5	Yes
62	13784	Delicate <i>Samarqandi</i> Buff	12.5x23	Yes
63	902	Delicate Brown Herati	13.5x23	Yes
64	3448	Thick <i>Sialkoti</i> Buff	20x27.5	Yes
65	1754	Thick <i>Kashmiri</i> Buff	9x13	Yes
66	14264	Khan Balghi	13x22	Yes

Table. 6B highlights the regular demand of *Samarqandi* paper.

The data indicates the high number of complete QMs. The Qur'an manuscripts produced on *Kashmiri* paper are on a large paper sheet of 31x41cm and 28x43cm while the smallest sized QMs 7x11 cm is on *Samarqandi* paper.

The *Sialkoti* paper is white and is of fine quality paper. It was the very famous paper of subcontinent in 16th century but it is very rare in the QMs of GBL collection, in spite of availability of quite large number of Qur'an manuscripts of this time period.

Table.7A Manuscript of Qur'an (Group A) Fifth Period 1700-1799 CE

S. No	QMs Acc.	Paper Type	Page Size (cm)	Status Complete
1	4041	Delicate <i>Kashmiri</i> Buff	16x29	Yes
2	3442	Delicate <i>Kashmiri</i> Buff	20x34.5	No
3	10577	English Buff	15.5x25.5	Yes
4	12941	Delicate <i>Samarqandi</i> Buff	18x25.5	Yes
5	4852	Thick <i>Kashmiri</i> Buff	14x22	Yes
6	8145	Delicate <i>Kashmiri</i>	17.5x32.5	No
7	5105	Thick <i>Samarqandi</i> Buff	17x24.5	No
8	1632	Delicate <i>Kashmiri</i> Buff	28x40	No
9	1633	Delicate <i>Kashmiri</i> Buff	28x40	Yes
10	1405	Thick <i>Kashmiri</i>	23x37.5	No
11	1529	Thick <i>Kashmiri</i> Buff	17x28	Yes
12	1530	Thick <i>Samarqandi</i> Buff	19x28.5	Yes
13	1619	Delicate <i>Kashmiri</i> Buff	22x36	Yes

14	1949	Delicate <i>Kashmiri</i> Buff	16x28	Yes
15	2217	Thick <i>Samarqandi</i> Buff	22x31	Yes
16	2471	Thick <i>Samarqandi</i> Buff	22x35	No
17	2872	Delicate <i>Samarqandi</i> Buff	17x28	No
18	3074	Delicate <i>Kashmiri</i> Buff	15.5x25	Yes
19	3305	Delicate <i>Kashmiri</i> Buff	18x29	Yes
20	3557	Thick <i>Kashmiri</i> Buff	14x20	Yes
21	3752	Delicate <i>Kashmiri</i> Buff	18x27	No
22	4114	Delicate <i>Kashmiri</i> Buff	17.5x26	Yes
23	4599	Delicate <i>Kashmiri</i> Buff	23x35	No
24	4772	Delicate <i>Samarqandi</i> Buff	21x34	Yes
25	5059	Thick <i>Samarqandi</i> Buff	16x26.5	Yes
26	5185	Delicate <i>Kashmiri</i> Buff	11x18.5	Yes
27	5334	Thick <i>Kashmiri</i> Buff	20x32.5	Yes
28	4074	Delicate <i>Samarqandi</i> Buff	15.5x26.5	Yes
29	7378	Thick <i>Kashmiri</i> Buff	17.5x27	Yes
30	7692	Thick <i>Kashmiri</i> Buff	17.5x24.5	No
31	7936	Delicate <i>Samarqandi</i> Buff	14x24.5	Yes
32	8531	<i>Kashmiri</i> Buff	18x25.5	No
33	10091	Thick <i>Kashmiri</i> Buff	22x37.5	Yes
34	10576	Delicate <i>Kashmiri</i> Buff	15x24	Yes
35	10661	Delicate <i>Kashmiri</i> Buff	14.5x24.5	No
36	12085	Delicate <i>Samarqandi</i> Buff	17.5x30	Yes
37	12092	Delicate <i>Kashmiri</i> Buff	15x24.5	Yes
38	12690	Thick <i>Samarqandi</i> Buff	21x33	No
39	13828	Delicate <i>Samarqandi</i> Buff	16x26	Yes
40	3609	Thick <i>Sialkoti</i> Buff	19x30	No
41	13656	Brown	11x18	Yes

Table. 7A shows that the *Kashmiri* paper is a most demanding paper in this period.

Table 7A presents the data of 41 manuscripts of Qur'an. It is a significant number in the group "A", this is more in number (of available QMs) as compared to the previous time periods. This increase in number of availability of QMs may be due to increase in the production of manuscripts of Qur'an or more effective preservation of QMs. The

sizes of paper vary from 11x18.5cm to 28x40cm. The declining trend in the use of *Samarqandi* paper is evident in this table (7A).

The status shows that 65.85 percent of QMs are complete. According to present study the *Sialkoti* and English paper is rare in this period.

Table. 7B Manuscript of Qur'an (Group B) Fifth Period 1700-1799

S. No	QMs Acc. No	Paper Type	Page Size (cm)	Status Complete
1	3334	Delicate <i>Kashmiri</i> Buff	16x26	Yes
2	6659	Delicate <i>Kashmiri</i> Buff	15.5x27	Yes
3	13827	Delicate <i>Samarqandi</i> Buff	7.5x12.5	Yes
4	2670	Delicate <i>Kashmiri</i> Buff	20x28	No
5	9517	Delicate <i>Kashmiri</i> Buff	16x24	No
6	5905	Thick <i>Sialkoti</i> Buff	16x24	No
7	4196	Delicate <i>Kashmiri</i> Buff	8.5x14	Yes
8	4224	Delicate <i>Kashmiri</i> Buff	16x26	No
9	1687	Thick <i>Kashmiri</i> Buff	17x25	Yes
10	5295	Delicate <i>Kashmiri</i> Buff	19x31	Yes
11	1646	Delicate <i>Kashmiri</i> Buff	13.5x21	Yes
12	8450	Thick <i>Sialkoti</i> Buff	17x24.5	Yes
13	1740	Thick <i>Sialkoti</i> Buff	15x21	No
14	1755	Delicate <i>Samarqandi</i> Buff	11x17	Yes
15	1756	Delicate <i>Kashmiri</i> Buff	12x21.5	Yes
16	1757	Delicate <i>Kashmiri</i> Buff	9x14.5	No
17	1784	Thick <i>Samarqandi</i> Buff	20.5x30	No
18	1790	Delicate <i>Sialkoti</i> Buff	12x18	No
19	1792	Delicate <i>Samarqandi</i> Buff	17.5x26.5	Yes
20	1912	Delicate <i>Kashmiri</i> Buff	11x16.5	Yes
21	1998	Delicate <i>Kashmiri</i> Buff	17x26	Yes
22	2065	Thick <i>Samarqandi</i> Buff	17.5x25	No
23	2219	Delicate <i>Sialkoti</i> Buff	20.5x27	No
24	2247	Thick <i>Samarqandi</i> Buff	13x20	Yes
25	2306	Thick <i>Kashmiri</i>	16.5x23	No
26	2548	Thick <i>Sialkoti</i>	15x24	No

27	2656	Delicate <i>Samarqandi</i> Buff	11.5x18	Yes
28	2668	Thick <i>Samarqandi</i> Buff	16x11	Yes
29	2722	Delicate <i>Kashmiri</i> Buff	11.5x20	No
30	3447	Thick <i>Samarqandi</i> Buff	20x30	Yes
31	3644	Thick <i>Samarqandi</i> Buff	22.5x37	No
32	3691	Delicate <i>Sialkoti</i> Buff	13.5x20	Yes
33	3694	Delicate <i>Kashmiri</i> Buff	23x37	No
34	3722	Delicate <i>Kashmiri</i> Buff	18x28.5	Yes
35	3924	Delicate <i>Kashmiri</i> Buff	19x30	No
36	4218	Delicate <i>Samarqandi</i> Buff	13x22.5	Yes
37	4559	Delicate <i>Kashmiri</i> Buff	17x25	Yes
38	4654	Delicate <i>Kashmiri</i> Buff	16x25	No
39	4708	Delicate <i>Kashmiri</i> Buff	14x19	Yes
40	4806	Delicate <i>Kashmiri</i> Buff	10.5x17.5	Yes
41	4713	Thick <i>Samarqandi</i> Buff	21x31.5	No
42	4844	Delicate <i>Kashmiri</i> Buff	14x20	Yes
43	4921	Thick <i>Sialkoti</i> Buff	11.5x19.5	Yes
44	4922	Delicate <i>Kashmiri</i> Buff	12.5x18.5	Yes
45	4929	Delicate <i>Kashmiri</i> Buff	15x28	Yes
46	5151	Delicate <i>Samarqandi</i> Buff	14x21	Yes
47	6004	Thick <i>Sialkoti</i> Buff	11x16	No
48	6225	Delicate <i>Kashmiri</i> Buff	15.5x23.5	Yes
49	6234	Thick <i>Sialkoti</i> Buff	14x24.5	No
50	6464	Delicate <i>Samarqandi</i> Buff	20x17.5	No
51	6480	Delicate <i>Samarqandi</i> Buff	10x15.5	Yes
52	8605	Delicate <i>Kashmiri</i> Buff	13.5x20.5	No
53	8607	Delicate <i>Sialkoti</i> Buff	13.5x20.6	No
54	6942	Thick <i>Sialkoti</i> Buff	16x25.5	No
55	7463	Delicate <i>Kashmiri</i> Buff	12x19.5	No
56	7826	Delicate <i>Kashmiri</i> Buff	9.5x13.5	No
57	7817	Delicate English White	10x16	No
58	10049	Delicate <i>Kashmiri</i> Buff	9.5x16	Yes
59	10925	Delicate <i>Samarqandi</i> Buff	17x29	No
60	11595	Delicate <i>Samarqandi</i> Buff	14x19	Yes
61	11743	Thick <i>Samarqandi</i> Buff	9.5x16.5	Yes
62	11744	Delicate <i>Samarqandi</i> Buff	10.5x16	Yes

63	12168	Delicate <i>Samarqandi</i> Buff	15x28	Yes
64	12240	Delicate <i>Samarqandi</i> Buff	14x23	Yes
65	12242	Thick <i>Samarqandi</i> Buff	16x30	Yes
66	12647	Delicate <i>Samarqandi</i> Buff	210.5x16.5	Yes
67	12699	Thick <i>Samarqandi</i> Buff	15x25.5	No
68	12812	Delicate <i>Samarqandi</i> Buff	13.5xx21.5	Yes
69	13092	Delicate <i>Samarqandi</i> Buff	25x37	Yes
70	13663	Delicate <i>Samarqandi</i> Buff	15x24.5	Yes
71	13665	Delicate <i>Samarqandi</i> Buff	19x30	No
72	13672	Delicate <i>Samarqandi</i> Buff	12x17	No
73	13677	Delicate <i>Samarqandi</i> Buff	19x27	Yes
74	13703	Delicate <i>Kashmiri</i> Buff	16x24	No
75	13783	Thick <i>Kashmiri</i> Buff	14.5x24	Yes
76	13803	Delicate <i>Samarqandi</i> Buff	8.5x14.4	No
77	3444	Delicate <i>Kashmiri</i> Buff	21x30	Yes
78	13655	Buff Paper	10x7	Yes

Table. 7B has a large data of 78 QMs.

In this table (7B), three main types of paper are identified which include *Kashmiri* (42.30%), *Samarqandi* (38.46 %) and *Sialkoti* paper (15.38%) in order of frequency. These three types of papers have a significant value in this period. Maximum page size is 21x31.5cm and minimum page size is 7.5x12.5cm. The status of manuscripts shows that 67.71 percent QMs are complete. The sixth period is shown in the table 8 which is given below.

Table. 8AB Manuscript of Qur'an (Group A and B) Sixth Period 1800-189
Group A

S. No	QMs Ace. No	Paper Type	Page Size(cm)	Status Complete
1	5107	Delicate <i>Kashmiri</i> Buff	11x20.5	Yes
2	12241	Thick <i>Kashmiri</i> Buff	17x28	Yes
Group B				
S. No	QMs Ace. No	Paper Type	Page Size(cm)	Status Complete
1	12884	Delicate <i>Samarqandi</i> Buff	12x21.5	Yes
2	13662	Delicate <i>Kashmiri</i> Buff	16x27	Yes
3	13608	Delicate <i>Samarqandi</i> Buff	35x23	Yes

4	4327	Delicate <i>Kashmiri</i> Buff	16x22.5	Yes
5	6519	Delicate <i>Kashmiri</i> Buff	13.5x23.5	Yes
6	13696	Thick <i>Kashmiri</i> Buff	21x36	Yes
7	2691	Thick <i>Sialkoti</i> Buff	20x32.5	Yes
8	1132	Delicate Dark Yellow	21.5x29	Yes
9	1852	Thick <i>Sialkoti</i> Buff	12.5x15.5	Yes
10	760	Delicate Brown Bukhari	12x20	Yes
11	827	Delicate Brown <i>Kashmiri</i>	20x32.5	Yes
12	5982	Delicate <i>Kashmiri</i> Buff	13x22	Yes
13	3076	Delicate <i>Kashmiri</i> Buff	10x18	Yes
14	2248	Thick <i>Sialkoti</i> Buff	19x29.5	Yes
15	2251	Thick <i>Sialkoti</i> Buff	21.5x31.5	No
16	3155	Delicate <i>Samarqandi</i> Buff	15x21.5	Yes
17	2068	Thick <i>Sialkoti</i> Buff	22x34	Yes
18	7818	Thick <i>Kashmiri</i> Buff	11.5x18	No
19	12887	Delicate <i>Kashmiri</i> Buff	7x12	Yes
20	1826	Delicate <i>Kashmiri</i> Buff	14x 22	Yes
21	2005	Delicate English Buff	10x16.5	Yes
22	2076	Delicate <i>Sialkoti</i> Buff	15.5x22.5	Yes
23	2091	Delicate <i>Kashmiri</i> Buff	12x20.5	No
24	2203	Thick <i>Samarqandi</i> Buff	19x27	Yes
25	2246	Delicate <i>Kashmiri</i> Buff	16x23.5	Yes
26	2349	Thick <i>Kashmiri</i> Buff	19x27	Yes
27	2352	Thick <i>Kashmiri</i> Buff	15x25	Yes
28	2354	Delicate <i>Sialkoti</i> Buff	15x24	No
29	2376	Delicate <i>Sialkoti</i> Buff	17.5x30.5	Yes
30	2391	Delicate <i>Kashmiri</i>	18x30.5	No
31	2535	Thick <i>Sialkoti</i> Buff	11x17.5	No
32	2536	Thick <i>Sialkoti</i> Buff	11.5x18	No
33	2537	Thick <i>Sialkoti</i> Buff	11x18	No
34	2538	Thick <i>Sialkoti</i> Buff	11x17	No
35	2539	Thick <i>Sialkoti</i> Buff	11x17.5	No
36	2540	Thick <i>Sialkoti</i> Buff	11.5x18	No
37	2541	Thick <i>Sialkoti</i> Buff	11.5x17.5	No
38	3449	Thick <i>Sialkoti</i> Buff	20.5x30	Yes
39	3513	Delicate <i>Samarqandi</i> Buff	17x28	Yes

40	3583	Delicate <i>Kashmiri</i> Buff	12.5x21	No
41	3692	Thick <i>Kashmiri</i> Buff	16x24.5	Yes
42	3695	Thick <i>Sialkoti</i> Buff	17x24.5	Yes
43	3696	Delicate <i>Kashmiri</i> Buff	20.5x27.5	Yes
44	3697	Thick <i>Sia</i> Buff	19.5x30	Yes
45	3807	Thick <i>Sialkoti</i> Buff	18x28.5	Yes
46	3835	Thick <i>Sialkoti</i> Buff	18x28	Yes
47	4661	Thick <i>Sialkoti</i> Buff	19.5x26.5	Yes
48	4771	Thick <i>Sialkoti</i> Buff	18x26.5	Yes
49	4773	Thick <i>Sialkoti</i> Buff	20x27.5	Yes
50	4829	Delicate <i>Kashmiri</i> Buff	11x19	Yes
51	4862	Delicate <i>Kashmiri</i> Buff	14x24	Yes
52	4863	Thick <i>Samarqandi</i> Buff	14x22	No
53	4928	Thick <i>Sialkoti</i> Buff	17x29	Yes
54	4947	Thick English Buff	14.5x20.5	Yes
55	4949	Delicate <i>Kashmiri</i> Buff	15.5x24	Yes
56	5002	Thick <i>Samarqandi</i> Buff	18x30	Yes
57	5189	Thick <i>Sialkoti</i> Buff	22x32	Yes
58	5229	Thick <i>Kashmiri</i> Buff	18.5x31.5	Yes
59	5248	Delicate <i>Samarqandi</i> Buff	16x23.5	No
60	5297	Delicate <i>Kashmiri</i> Buff	8x11.5	No
61	6461	Delicate <i>Kashmiri</i> Buff	11.5x18	No
62	6520	Delicate <i>Kashmiri</i> Buff	10.5x17.5	Yes
63	6806	Delicate <i>Sialkoti</i> Buff	14x21	No
64	7152	Delicate <i>Samarqandi</i> Buff	19x31.5	Yes
65	7566	Delicate English Buff	13.5x20	No
66	7713	Delicate English Buff	14x20	No
67	7881	Delicate <i>Sialkoti</i> Buff	15.5x24.5	Yes
68	7888	English Buff	11x20	No
69	8062	Delicate English Buff	14x20	No
70	9516	Thick <i>Sialkoti</i> Buff	19.5x28	Yes
71	9574	English Buff	15.5x26	Yes
72	9648	Delicate <i>Kashmiri</i> Buff	10x16.5	No
73	9769	Delicate <i>Kashmiri</i> Buff	9.5x15.5	No
74	11598	Thick <i>Kashmiri</i> Buff	14x19	Yes
75	11599	Thick <i>Sialkoti</i> Buff	19x30	Yes

76	8659	Delicate <i>Kashmiri</i>	8x13	Yes
77	12182	Thick <i>Samarqandi</i> Buff	15x33	No
78	12529	Thick English White	14x21	Yes
79	12814	Thick <i>Kashmiri</i> Buff	17x24	Yes
80	13359	Delicate <i>Kashmiri</i> Buff	19x31	Yes
81	13360	Thick <i>Kashmiri</i> Buff	21x31.5	Yes
82	13401	Thick <i>Kashmiri</i> Buff	19x26	Yes
83	13402	Thick <i>Kashmiri</i> Buff	20x32.5	Yes
84	13584	Thick English Buff	20x30	Yes
85	13610	Thick <i>Kashmiri</i> Buff	16.5x27	Yes
86	13664	Thick <i>Samarqandi</i> Buff	19x13.5	No
87	13670	Delicate <i>Kashmiri</i> Buff	8x14.5	No
88	13792	Thick <i>Kashmiri</i> Buff	25x29	No
89	13800	Delicate <i>Kashmiri</i> Buff	11.5x18	Yes
90	13802	Thick <i>Kashmiri</i> Buff	19.5x28.5	Yes
91	13820	Thick <i>Kashmiri</i> Buff	14.5x22.5	Yes
92	5663	Thick English Buff	14.5x21.5	Yes
93	1630	Thick <i>Samarqandi</i> Buff	29x50	Yes
94	11565	<i>Sapahani</i>	13x23	Yes

Table. 8 Shows the unique entry of *Sapahani* paper.

Sapahani paper is used for QMs due to its superb quality but not as famous as *Sialkoti* paper.

The exploration of a new paper and the demand of *Samarqandi* and *Kashmiri* paper is going on side by side. The presence of large number of QMs is unique in paper size and shows the monopoly of *Samarqandi* and *Kashmiri* paper. The status of group B manuscripts of Qur'an indicates that 70.21 percent of manuscripts are complete. In the group A (manuscripts with Persian translation), the available number of manuscripts of Qur'an is only two which is much less than the previous time period while the manuscripts of group B are high in number. The possible explanation for this difference may be the impact of the geopolitical situation in the region during that time period. In nineteenth century, there was decline in the power of Mughal empire. Since the official

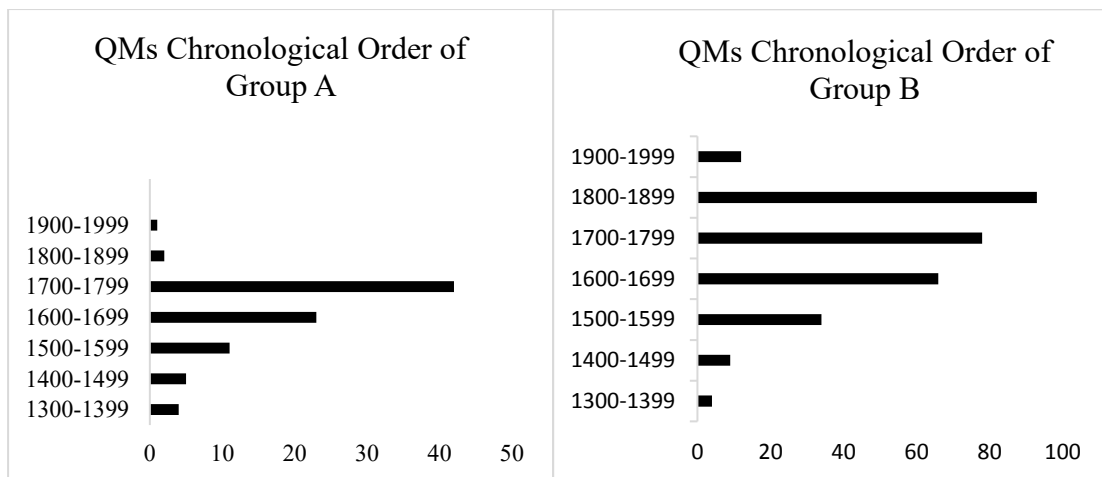
language of the Mughal government was Persian and with the decline of power, there may have been a declining trend in the learning of the official language. The second possibility may be the diminishing economy and reduced buying power of customers as the manuscripts of Qur'an included in group A have Persian translations and explanation, which may be more expensive as compared to the group B which has only the Arabic text.

Table. 9AB Manuscript of Qur'an (Group A and B) seventh Period 1900-1999
Group A

S. No	QMs Ace. No	Paper Type	Page Size(cm)	Status Complete
1	780	Delicate yellow <i>Kashmiri</i>	12.5x20	Yes
Group B				
S. No	QMs Ace. No	Paper Type	Page Size(cm)	Status Complete
1	5296	Delicate <i>Samarqandi</i> Buff	17x28	No
2	5297	Delicate <i>Samarqandi</i> Buff	8x11.5	No
3	5308	Delicate <i>Samarqandi</i> Buff	12x20	Yes
4	5577	Delicate <i>Samarqandi</i> Buff	14x21.5	No
5	5660	Thick <i>Sialkoti</i> Buff	14.5x21.5	Yes
6	5732	Thick <i>Sialkoti</i> Buff	11x16.5	No
7	5802	Delicate <i>Kashmiri</i> Buff	10.5x16.5	No
8	5817	Delicate <i>Kashmiri</i> Buff	11x17	No
9	5966	Thick English Paper	11x7.5	No
10	4164	Delicate <i>Samarqandi</i>	9.5x16	Yes
11	3263	Thick <i>Sialkoti</i> Buff	14.5x21	No
12	3888	Thick English Buff	16x21	No

Table. 9AB shows the declining trend of QMs in this period.

The sizes of the papers are not the same. Almost 70 percent QMs have missing pages either from the first, middle or last section. In fact, group B has more QMs; the sizes of the papers are medium to small. Once again, *Samarqandi* has the prominent position among the others. There is declining trend in the production of manuscripts of Qur'an during this century (graph 2).



Graph. 2 The graph A and B show the QMS production and chronological comparison between the group A and B.

The graph shows the gradual increasing QMs production in the group A and achieved highest production rate in 18th century. The group B also has a smooth and steady increased production of QMs which highest in the 19th century. The group A declining trend in the production of manuscripts in the 19th and 20th century whereas declining trend is observed in group B during the 20th century. This rapid change in the production of manuscript may be linked to the development of printing and its associated industry which resulted in replacement of handmade paper by the machine-made paper and scribe work is done by the printing press. Illuminated QMs are rare in 19th till 20th century due to the decline of patronage and skilled person. In the history of subcontinent 20th century is very important, as there was emergence of the three states India, Islamic Republic of Pakistan and Bangladesh. This territorial division has great influence on the overall social, political and economic values of the region. The production of the QMs also suffers in this situation.

4. Qur'an Manuscript (QMs) Binding/ Cover

The term book-binding mentions the cover of a book that is usually made of cardboard coated by different materials (leather, paper and fabric). This activity prevents the book pages from fragmentation and deterioration.

The present study observes the GBL collection of QMs decoration, development and expansion between the 14th till the 20th century. This collection of illuminated QMs has a variety of bindings styles.

The binding styles of the QMs studies on the bases of reason. Firstly, the data of QMs is being observed for the overall explanation of the QMs book-binding as a part of the codicological study, secondly for the physical analysis to identify the regional and hybrid styles. Thirdly, the QMs is to be put in the chronological frame between 14th to 20th century. QMs bindings are made with different material, by using different techniques. Many styles are produced by these techniques in terms of evolution and development. The present study makes the comparison among the QMs of different periods.

4.1 Historical Background of Bindings

M.Paul Laeroix defined book-binding as “the art of reuniting the leaves stitched or stuck into a moveable back, between the two squared pieces of wood, ivory, metal or leather” (Laeroix 2006: 471). Generally, ordinary books were covered strongly from the back as compared to the front. The wooden boards were used for the sides and leather for the cover. Book-binding skill was well known from the very beginning probably when the book was formed. In medieval times Byzantine book covers⁹ were very rich in style and material. Monks, being a literate person had the authority to choose the cover design and sometimes they preferred simplicity or illumination for many reasons (Diehl 1980). Joseph W. Zaehnsdore mentions that crusaders¹⁰ brought the eastern manuscripts of binding to the west in the middle ages and monks took the idea of beautification from those specimens (Zaehnsdore 1890). An amalgamation of

⁹ Precious stones and metals such as gold and silver were used for book covers.

¹⁰ The religious warrior, the crusade is a series of religious war sanctioned by the Latin Church in medieval period.

these ideas developed different styles with different materials such as the use of oak wood¹¹, coloured leather, engraving and printing (Deroche 2006). Gradually, the art of book-binding made progress and became an asset. Great improvement took place over a period of time and finest binding specimens were produced named as Morocco, Calf, Levant, Crushed and Niger¹² (Bosh 1981).

By the time new techniques of decoration were adopted by the artisans such as Diced, Marbled, Mottled¹³, Paneled, Polished (calfskin polished to make it smooth) and Spanish (red and green acid and dye to bright stain spots of colour in the binding). This process initially started in Spain called Speckled and Tree Calf¹⁴.

Artist mostly preferred Morocco as compared to calf binding (without grains) because the calf binding shows all the creases in the back made by the opening.

The craftsmen migrated from Greece and Near East to Italy, they transferred their skills to the western binder. With the fall of Constantinople, Arabic Muslim captured the massive land (Alexandria, Antioch, North Africa, Spain, Asia Minor and Balkans). Arabic bookbinder replaced the wooden board with the lightweight paste in the board on gold tooling (Bosh 1981). This innovative skill inspired the west, it probably reached through Spain and Italy. Initially, Coptic/conventional style is adopted by the Arabs (Bosh 1981). Gradually, they established their own style. Tabriz, Baghdad, Shiraz and

¹¹ Oak wood is strong, heavy and durable. It was used for book cover due to its dense constitution and long living nature.

¹² French and English artisan applied the blind tooling techniques on the surface of soft leather. Morocco is made of goatskin, dyed in bold/ strong colours and known for durability. Calfskin is fashioned in Europe in the sixteenth century. Levant binding prepared by the calfskin. Crushed, the leather has a smooth surface without grain and has a light brown colour. Niger is highly polished and large grain morocco binding.

¹³ A decorative design of diamonds/square on leather. Marbling is a technique, stained with a diluted acid to produce the effect of spinning. Mottled is a design produced by sponging it with dyes or acid on calfskin.

¹⁴ This technique is used to form the pattern of small dark spots on leather. Tree calf was an 18th century technique that produces a dark tree- such as pattern on the leather surface.

Herat were the famous centers for book-binding in the 15th century (Ashrafi 1996). Each centre maintained its style and identity. Indian artisan has some influence from the Middle Eastern style (Jacobs 2008). This borrowed style has been changed in the 16th century when the Mughal ruled to Indian land. Less use of leather, lacquer in fashion, gold tooling, stamping, gilding, fabric coloured paper and pasteboard covers. Ornamentation of binding was diminishing gradually. Mostly, a highly illuminated manuscript of the Qur'an has well- decorated binding. Decorated covers also attract the attention of the buyer.

Researchers have built up a significant relationship between the Coptic bindings and Mamluk book-binding. The whole decoration was done with lines and geomaterial shapes (Jacobs 2008). Most researchers believed that the art of book-binding was started from Egypt and flourished in Herat and reached far-flung areas of the Muslim community. The art and craft were started by the Syrian and Egyptian craftsmen gathered by the Timur at one place (Aslanapa 1979: 58). Many techniques¹⁵ were introduced in Mamluk art but now associated with the Herat art of binding due to the transformation of techniques and skills in Herat. Under the patronage of Prince Shah Rukh (Son of Timur), book-binding was progressed as precious artwork in Herat in the 14th century. During the fifty years of time span at Herat of Shah Rukh and his son Baysunghur¹⁶ promoted the art and craft with great interest. Their sponsorship brought the new dimensions for artists and skilled persons. They set up art and craft, academies, encouraged the skilled person and valued their work by giving a high status in the society. The characteristics of Herat bindings are very sophisticated and innovative. Instead of moulding techniques, block printing, pressing, engraving, filigree, foliage

¹⁵ Leather binding, filigree decorated with geomaterial shapes, binding is decorated by pressing and moulding with tools/stamps.

¹⁶ He himself a calligrapher and artist.

design and lacquer printing is practised for the decoration of binding (Schefer 2015). After a century of academic and economic ruling by the Herat academy, its decline started during the period of Shaybanids (taken over the rule in the 16th century). Bindings of Herat belong to high-class work for the royal and religious book. Book covers from Herat are unique in style and distinguished among others because it is formed by the world known artisan which, king Timur gathered from his whole conquered land. Shiraz and Tabriz school of art flourished at the same way as Herat.

4.2 Characteristics of QMs Bindings

The QMs of GBL has different binding' s style and techniques. It does not belong to the specific period and region of subcontinent. Many factors affected the quality of work and their expansion such as religion, social and economic values that played the vital role in the progress of the book illumination and book-binding. Book-binding is an important and valuable industry of the subcontinent. The market value of binding materials is very high. Only worthy manuscripts are selected for binding. Binding designs are distinctive in colour combination, techniques (lacquer, filigree) and materials. Analysis of book-binding of QMs indicated that the horizontal¹⁷ format of Qur'an is not present in this collection from the 14th to 20th century. The transformation from horizontal to vertical may be fashioned after the introduction of handmade paper. Initially, Qur'an was written on different mediums and formed in horizontal appearance. The horizontal Qur'an is heavy and large in size which is quite difficult to carry. Gradually, it is transformed into a vertical format which is easily transferable. The vertical style has many sizes which include small, medium and large size. These sizes vary in their volumes in different time periods. The large, medium and small sizes of manuscripts of Qur'an of 14th century differ from the 15th and 16th century Qur'anic

¹⁷ Mostly made of wooden boards.

manuscripts. The leather is a very common material for book covers. Qur'an binding mostly found in red-brown sheep-skin. Binding was also ornamented by using different materials and techniques. The leather cover is decorated before attachment.



A

B

Figure. 5 A and B QMs Acc. No 12885 Group "B". The estimated production year is 1688. It is a simple leather binding and QMs Acc. No, 13703 belong to the same group. The estimated production year is 1785.

Simple covers are very rare in the QMs bindings in the 14-16th century but, also found in the 17th and 18th century (Fig. 5A and B). Initially, bindings were decorated with blind¹⁸ tooling of simple geometrical elements and the addition of gold, gilding and stamping technique practiced in the subcontinent. It would be difficult for the researcher to classify the manuscripts of the binding when some private/ institutional owners change the damaged/ undamaged covers according to their taste.

4.3 Process of Book-Binding

Book-binding is a laborious and time-consuming process. Different types of tools and stitching techniques are involved. Metal foot rule, large and small shears, backing hammer, tenon saw, band nippers, pencil and dividers are main tools for binding. For

¹⁸ Blind tooling is carried out by heated tools or metal stamp beaten by the hammer for impression on leather.

better cutting, the position of the knife is always straight. Book-bindings were as illuminated and beautified as decorated inner side of the book. Initially, book-binding industry was running by the skilled persons and gradually it flourished under the patronage of the royal court. Book lovers, artist and rulers were the best promoters of the well-decorated book and its binding. Sacred books were distinguished from the others by their presentation of binding with expensive material. Royal documentation is also bound in a special way which could be quite expensive. The process of binding was old, with the passage of time it was progressed by adopting many techniques and reforms. Different types were introduced such as box binding, simple and flap binding was very common (Deroche 2006). The types of bindings also known as regional and material-oriented names such as Coptic binding¹⁹, Ethiopian binding²⁰, book cover with flap, wooden board binding, Limp vellum²¹, long stitch book-binding, calf binding, paper case binding, in board cloth binding and cased cloth binding. Adhesive materials are very important in the binding process. It holds the sections, right placement of cord, application of final cover is also made possible because of the glue (Bosh 1981). It became dry within one or two hours. Glue is obtained from animals and plant source. For book-binding gelatin (obtained from the animal) is preferable due to its effectiveness and water-soluble quality. The drawbacks of this glue are also in front of a binder as, (Fig. 5) by the time it would become thick, shrink when it dries, dark in colour and have a potential to harm wood, leather, paper and artwork. Pile of papers contains 3, 5, 7 sheets or more in one rim. The manuscripts with large volume contain five to seven sheets in a rim while the smaller one has three sheets in the rim. At first,

¹⁹ In this binding page were sewing together.

²⁰ In this technique chain stitch join the multi-section of the book.

²¹ Very informal method of binding, in which the book has flexible cloth, leather/ vellum or paper sides.it is initially practiced in 14th century.

the back of the book is sawn in kettle stitch with Tennon saw. The size or thickness of the cord is dependent upon the thickness of the pages and size of the book. To strengthen the cord, the glue is used if it is loose (due to big holes in the bindings). When the two bands are used, then the thread is twisted twice round (as one for the initial section and second for the next section). The last section is fastened with the double knot. Stitching techniques are simplified during the time (Fig. 6A and B). In last manuscript (Fig. 6C) random stitching shows the hastiness of the sewing master, as it is done later for preservation purpose or just to hold all pages of the manuscript.

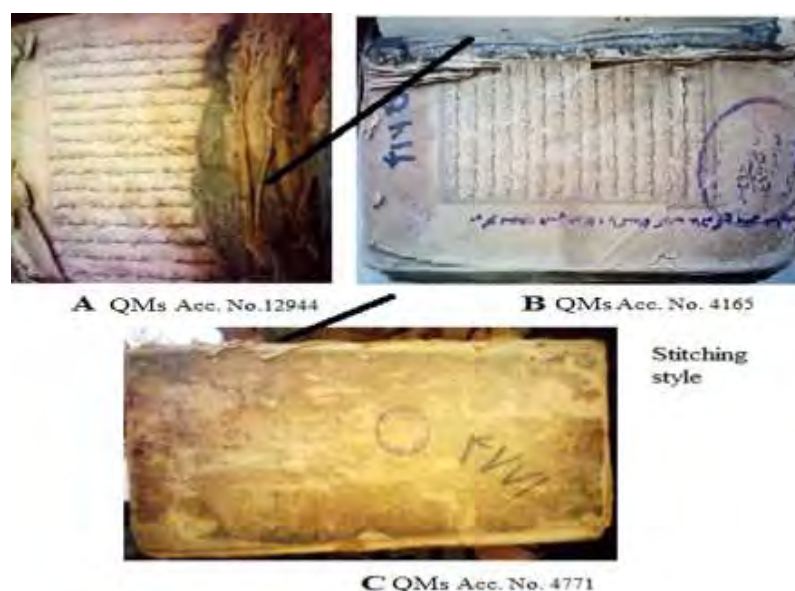


Figure. 6 A QMs Acc. No.12944. Main two stitching threads involved in disorganized stitching. In B QMs Acc.No.416, the estimated production year is 1591. C QMs Acc. No. 4771. The estimated production year is 1882. It is paper paste binding with random stitching. The QMs (A, B and C) belong to the group B.

Endpapers are chosen by the buyer, binder and depend upon the style of binding. Endpapers are the best inside supporter of the recto and verso of the binding. Many types of the endpapers are used such as Cobb²² paper, surface paper²³, marbled paper, coloured paste paper²⁴ etc.

²² It is a water absorbent paper; its name derives from a binder who first use it.

²³ It's one side is prepared of brush strokes with different colours, available in dull and glazed also. The dark coloured paper is generally used for the religious books.

²⁴ Selected colours are mixed with an adhesive and few quantities of soap. It is spread between the two sheets when one of them is separated both sheets has a wavy pattern on them. It is very famous in Germany for the book cover.

4.4 Chronological Study and Binding Styles of QMs

For better understanding, QMs is divided into the chronological period of the 14th century to 20th century. The overall gesture of design is identical from one period to another with addition or subtraction of some patterns/ motifs. QMs composition of design is not complex and over decorated. Organic shapes and geometric shapes are incorporated with overall binding composition, central medallion (pear-shaped and geometrical such as Square and Diamond etc.) quarter medallion, border frame and “L” shaped margins. Borders are filled with different patterns of foliage and geometrical lacework. The surface of the book cover is well distributed and designed. Sometimes artist covers the whole surface of binding with interlaced design without any care of the medallion and pendants. QMs binding decoration, gilt edges are seen that formed in a different way, such as in rounds, “L” shaped and designed stripes. The significance of gilt edges is to heavy the cover/ to put some weight on the pages so that these pages could be straight without crimple or fold. It hence the beauty of the binding as well. The paper used for binding was also burnished²⁵. The addition of gold leaf has increased the beauty and value of the binding. Gold leaf production factories produced, high, low and cheap quality. The subcontinent was rich in gold due to the trade and economic power of raw material and products. According to Pausanias Periegete²⁶, a lot of gold achieved by the Indian traders from the Roman empire (from the ancient time). Gold in the form of powder and leaf was used in the illumination process of a book. Gradually pure gold was less used for decoration because it was very precious, and the design made of pure gold was not durable. Later on, the alloy of gold (gold mixed with other

²⁵ It is burnished in a different way such as one cup of water mixed with an egg white well and leave for hours to settle. It is applied to the old piece of linen on the surface of binding is then scraped with steel scrapers. Because proper and even scraping enhance the gilding quality.

²⁶ A Greek traveler and geographer of the 2nd century.

metal silver, or copper) was used for the decoration purpose. Alloy gold becomes black by the atmospheric action during the time. It was provided to the artisan in a ribbon, square and rod form. The artisan applied it as design demanded by the client.

4.4.1 Binding style of the 14th Century (Group A and B)

The features of binding of QMs are shown in the figure 7. The front cover opens from the right side and back cover opens from the left side. Empty spaces are seen in this binding style. Three main patterns are identified which include almond shape (called mandorla), two pendants adjacent to mandorla and corner motifs in each corner of the binding. The technique used for this decoration is called onlays. Deroche defines the onlays as a piece of paper or leather that is pasted on the surface of binding in a decorative way (Deroche et al. 2006: 282).



Figure. 7 QMs Acc. No 623 *Group "A"*. The estimated production year is 1388. A leather binding with central almond shape medallion and gilt edges (onlays).

QMs has full cover decoration. The overall presentation of this binding is symmetrical. Central mandorla is filled with foliage interlaced design. According to the Gacek, mandorla type medallion was present on the Egyptian binding of small-sized manuscripts (Gacek 1990: 91-110).

4.4.2 Transformation of Motifs in 15th to 16th Century (Group A and B)

The overall layout of the design is same in the both QMs (988 and 13826). The major difference prevails in technique and motifs. The transition (lobed almond shape into diamond shape) in mandorla motif and addition of stamping technique is observed in the QMs of 16th century. The place of mandorla (in the middle of the cover) is also changed. It is presented at the top or bottom of the binding. Both QMs binding has full decoration. QMs Acc. No 13826 has symmetrical design alignment such as ruled frames, motif placed at the corner, borders and pendant at the top and bottom of the mandorla. Deep red/ maroon colour of the binding creates the shadows inside the motifs (created by the stamping techniques). This QMs binding is without flap, but the designing of front and back is present in the same way.

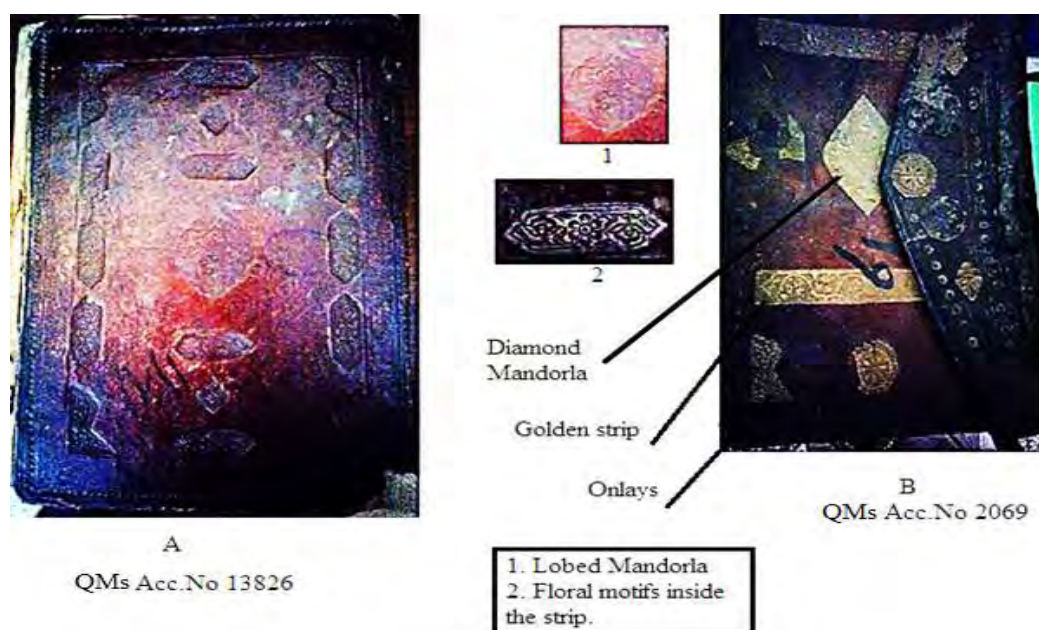


Figure. 8 QMs Acc. No 13826 (15th century, group B) and QMs Acc. No 2069 (16th century, group A).

The gilded onlays of the QMs Acc. No 2069 are examined in this figure 8 the colour of the binding is brown. This binding design is asymmetrical. The central mandorla (enclosed with gilded strips) now moves a little bit towards the top and a (curvy) pendant located at the bottom. Inside design of onlays is noticed as symmetrical and

motif managed in a simple repeat. No doubt, these inner design increases the beauty of onlays. Three rounded pendants are positioned in the middle and two small gilded diamond incorporate with them on the binding flap. This decorated work shows the gesture of an artist that he has liked to decorate the flap and back cover of the book as well. It would take more time and expenses, but it has been done either as a presentation of a new idea or making fortunate.

4.4.3 Comparative Study of the 14th - 16th Century (group A and B)

QMs onlays design progressed till the 16th century with modification. Firstly, the visual presentation of motifs is transforming from vertical to horizontal, secondly, corner onlays scattered and sometimes combines with mandorla or strips, thirdly, lobed almond shape mandorla formed in a diamond.

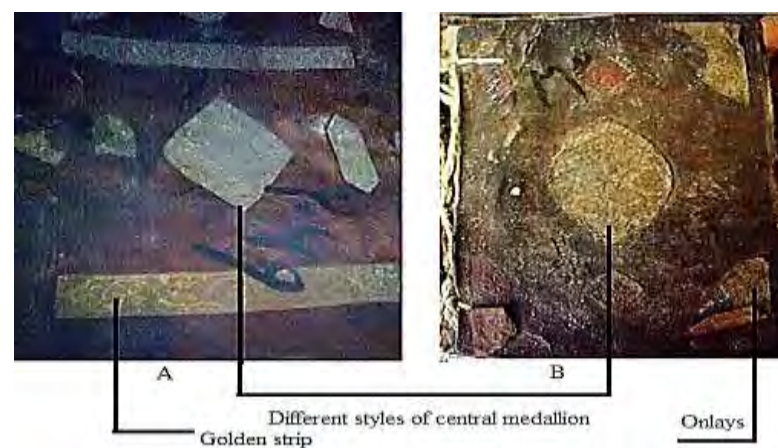


Figure. 9 A and B represents the 14th till 16th century style of binding.

Binding design of figure 9A is a refined form of 16th century onlays design and figure 9B is the 14th century. Both bindings are designed on leather. The spaces between the corner motifs and central mandorla remain empty. The central position of mandorla is very common in the 14th and 16th QMs.

4.4.4 Binding Style of 17th Century QMs (Group A and B)

The 17th century brought significant changes in the layout of the bindings. The work in lines and geometric shapes produced the simple design instead of complex. The

orientation of binding design is vertical (Fig. 10). The central (rectangle) box encircles with gilded border and further divided into four empty (without any motif) triangles. The wide rectangular layout of the binding design, with lines and shapes, took very importance as mandorla and pendant design had in the previous centuries (14th till 16th century).



Figure. 10 QMs Acc. No 4948 *Group "B"*. The estimated production year is 1688. Leather binding, ruled gilt. Simple Mamluk style is adopted by the artisan of Mughal period. 6A is detailed drawing of figure 6.

The decreasing point of ornamentation is seen in figure 10. Corner panels and the border is now replaced by the wide ruled frame or enclosed border.

The presence of medallion/mandorla was in fashion in 14th till 16th century (Fig. 8-9) but vanished in the 17th century bindings of QMs.

4.4.5 Variation in the Binding Styles of 18th Century QMs (Group A and B)

The presences of a variety of binding styles inaugurate the comparative study amongst the bindings of QMs. In figure 11, QMs A, B and C have the same design orientation, however the line work, size of the medallion and ruled frames designed in a different way.

QMs A has three golden ruled frames and small pendant placed in the centre of the rectangular box. Similarly, QMs B has centred pendant (a little bit bigger than A's pendant) and two ruled frames (one wide frame cover the edges of the binding whereas second enclosed the pendant/ medallion). The third QMs denoted as C has centred

(brown colour) small pendant inside the small rectangular box. The edges of the binding are tanned with a dark colour.

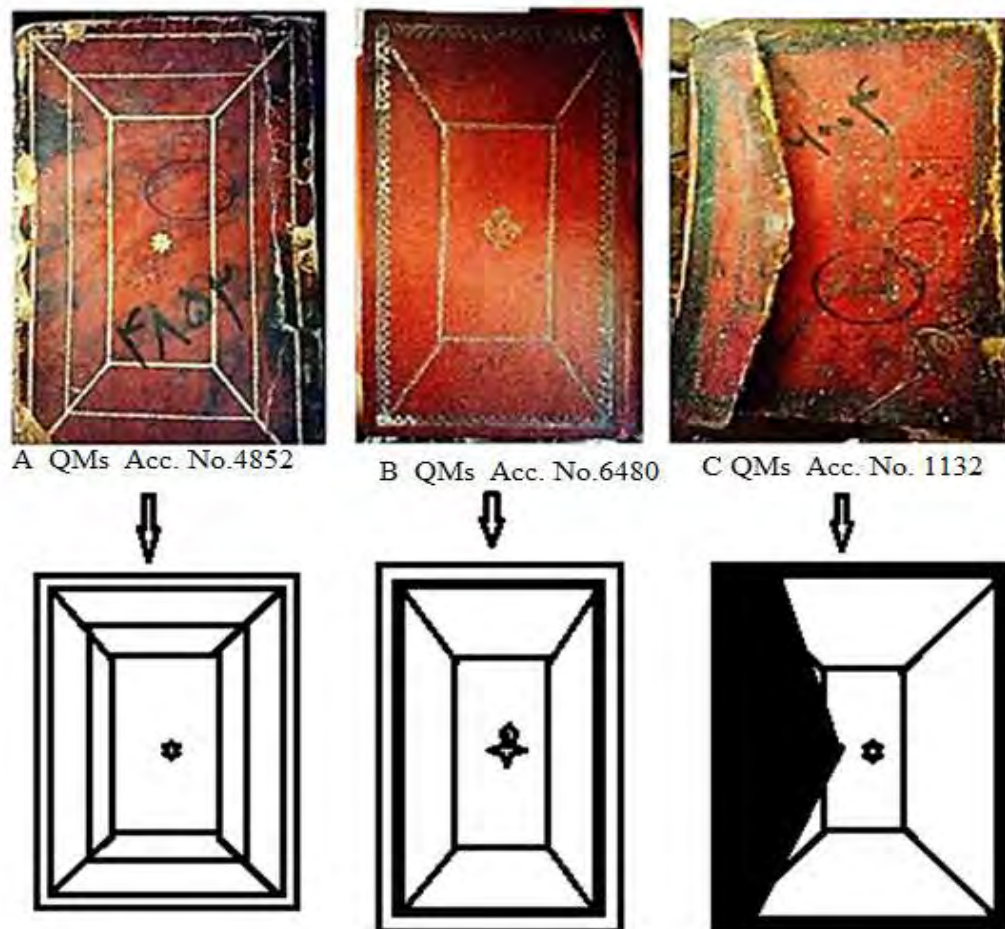


Figure. 11 A QMs, Group “A”. The estimated production year is 1771. A leather binding has very simple decoration, made by the artisan of the 18th century. B and C belongs to the same group and chronology (year 1785).

In figure 11, the binding shows reduction in the size of centred pendant/mandorla motifs and variation of panels in QMs A, B and C. In the late 18th century a revival of 14th - 16th century binding style is seen in figure 12.

The lobed mandorla again placed in the middle and pendants that ends with an additional pointed line is presenting a hybrid style of binding. Lobed pendant, pointed line and spaces between them were present in the 15th century ottoman bindings (Rukanci 2012).

The revival of onlays technique is also examined in this period. QMs A and C have the gilded corners.



Leather binding with gold stamping and gilding

Figure. 12 QMs Acc. No 10091 Group A, production year is 1785 and QMs. Acc. No 13662, production year is 1801. QMs Acc. No 2091, production year is 1882. Leather binding with gold edges. Both belong to group B.

Leather Binding Stamping Technique

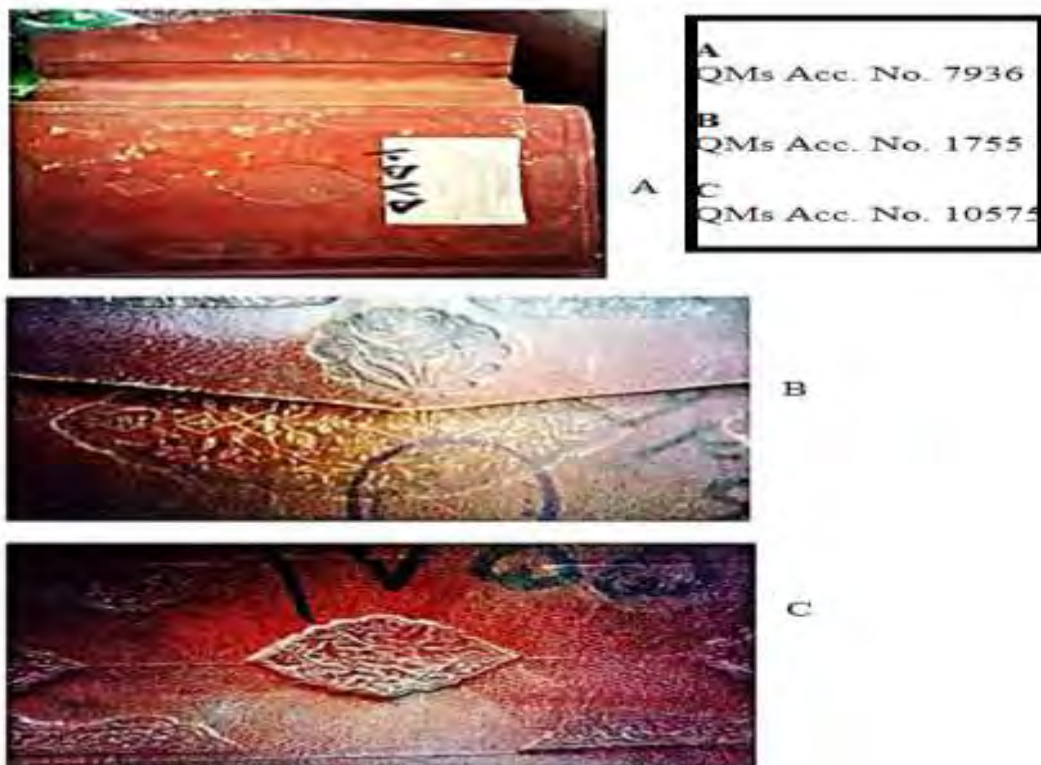


Figure. 13 A QMs Acc. No 7936 (A and C belongs to group A) and B (group B) has same chronology (1785) and technique (stamping on leather binding). The C QMs is 17th century (year 1688) manuscript.

In figure 13, QMs A, B and C have the centred lobed mandorla with incorporate motifs of pendants, panels and L shaped corner. Stamping technique (without gilding) is applied on the deep red and brown leather surface of the QMs. The leather is preferable material for the binding. It can be dyed, stamped and gilded. Most of the QMs has leather binding. Valerie Cloonan defines the leather quality as it is a good material for binding because it could be survived for centuries (Cloonan 1995). The figure 14 shows another type of designing and layout of the binding. This century has a lot of margins for the upcoming researchers and artist to study each QMs separately. QMs A and B has different orientation of binding (A is vertical and B horizontal) and design. QMs A has a simple design of centre aligned mandorla with pendants, enclosed in two gilded ruled frames and a lot of empty spaces. Whereas QMs B has maintained the symmetry of overall binding layout. Corner pieces and pendant are filled with arabesque/ interlace motifs. The production QMs B binding shows, it is designed for the high class.

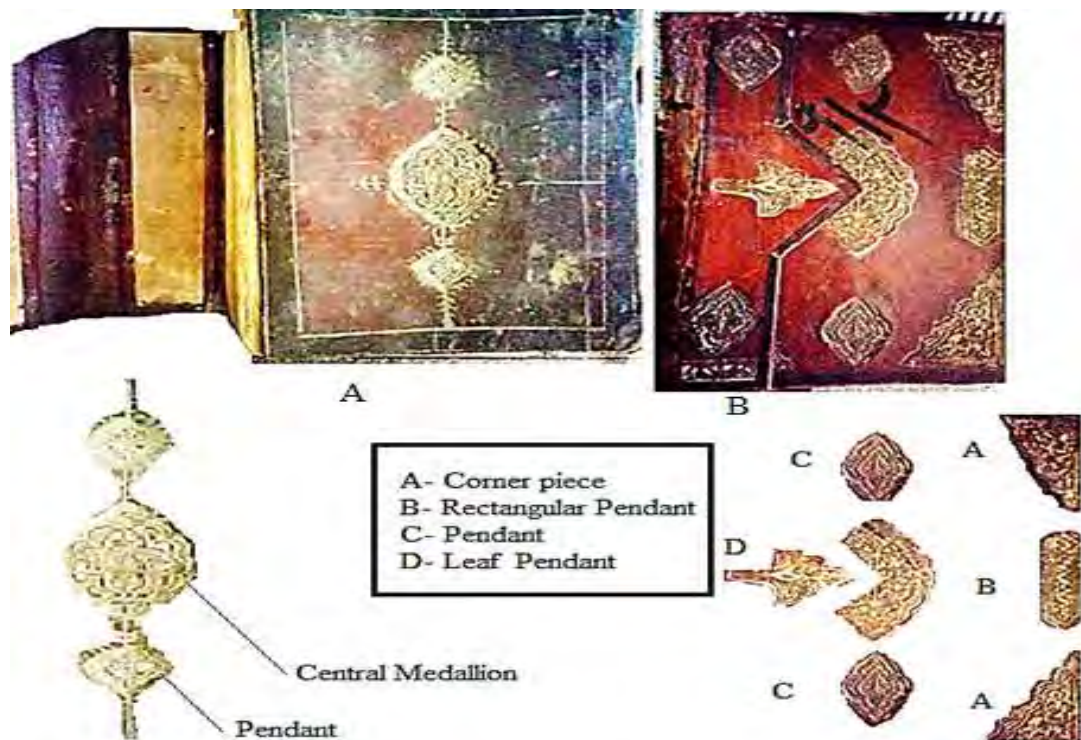


Figure. 14 A QMs Acc. No 2872 Group A, production year is 1785. B QMs Acc. No 1912 belongs to Group B, production year is 1785, gold stamping on leather binding.

QMs A design is inspired from the 15th-16th century Ottoman binding style. The inspiration showed in pendants, pointed ending of the pendant, mandorla filled with symmetrical motif either with floral or arabesques, small leaf/ lines connected with the mandorla and empty spaces in the overall layout of the design.

Persian influence is also noticed here in the motifs of the QMs B and overall binding layout along with empty spaces. According to the Rukanci, the whole binding (during the 16th century) was covered with motifs without leaving any empty spaces (Rukanci 2012).

Deroche and Regemorter mention that the binding style of the whole Eastern side of the Mediterranean zone are same and derives from the Egyptian binding techniques (Deroche 2006). Another view regarding the binding style is presented by Adolf Grohman that the early Islamic bindings are inspired from the Coptic binding.

4.4.6 The Design of 19th - 20th Century QMs (Group A and B)

The techniques used for binding in this century are very unique and affordable. Most of the 19th and 20th bindings are decorated in the filigree design on pasteboard with the application of lacquer. Paperboard/ papier-mâché, lacquer and filigree are very common in Persian bindings (Schefer 2015).

In figure 15, QMs A and B have the same technique but different in the design layout. QMs A filigree design is enclosed with border whereas QMs B has an arch-shaped border. Dark background and contrast foreground created the effect of chiaroscuro which enhances the beauty of the QMs binding.

In figure 16, QMs B has the overall look of a carpet. Such as four-sided border, floral spray and centre medallion. While the other one has the foliage, filigree surrounded by the border.

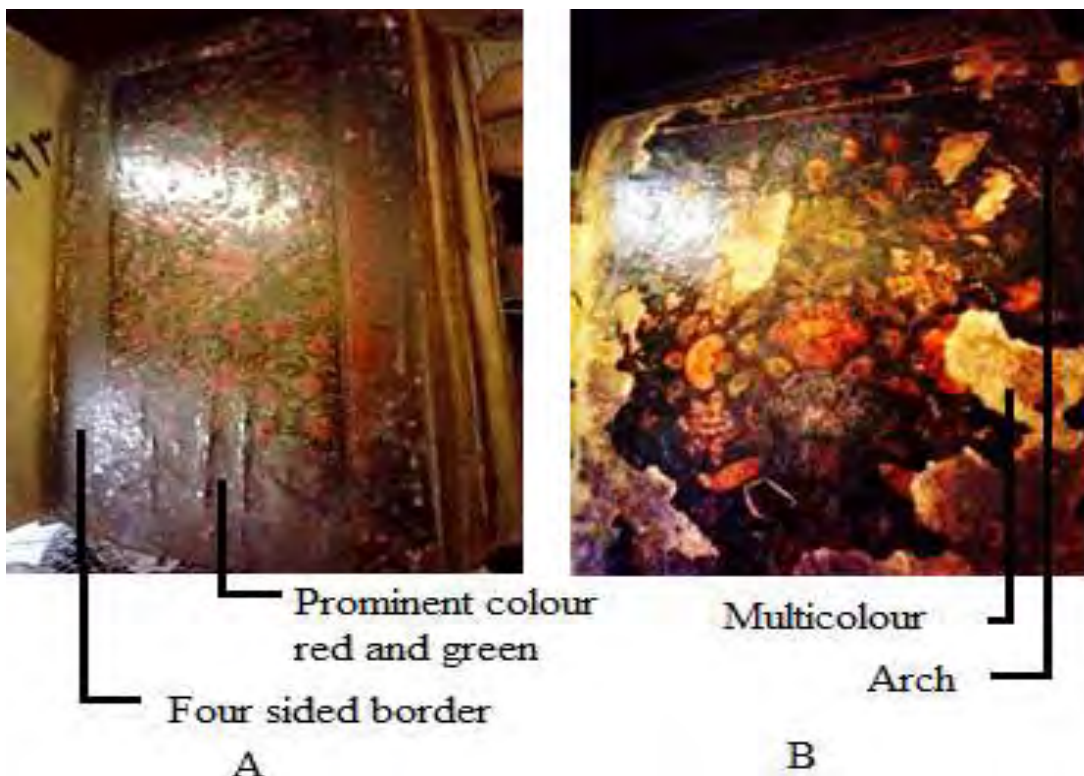


Figure. 15 QMs Acc. No 827 (belong to 1840 century) and QMs Acc. No 4844 (produced in 1785) both from Group "B". Filigree design on papier mache lacquer binding.

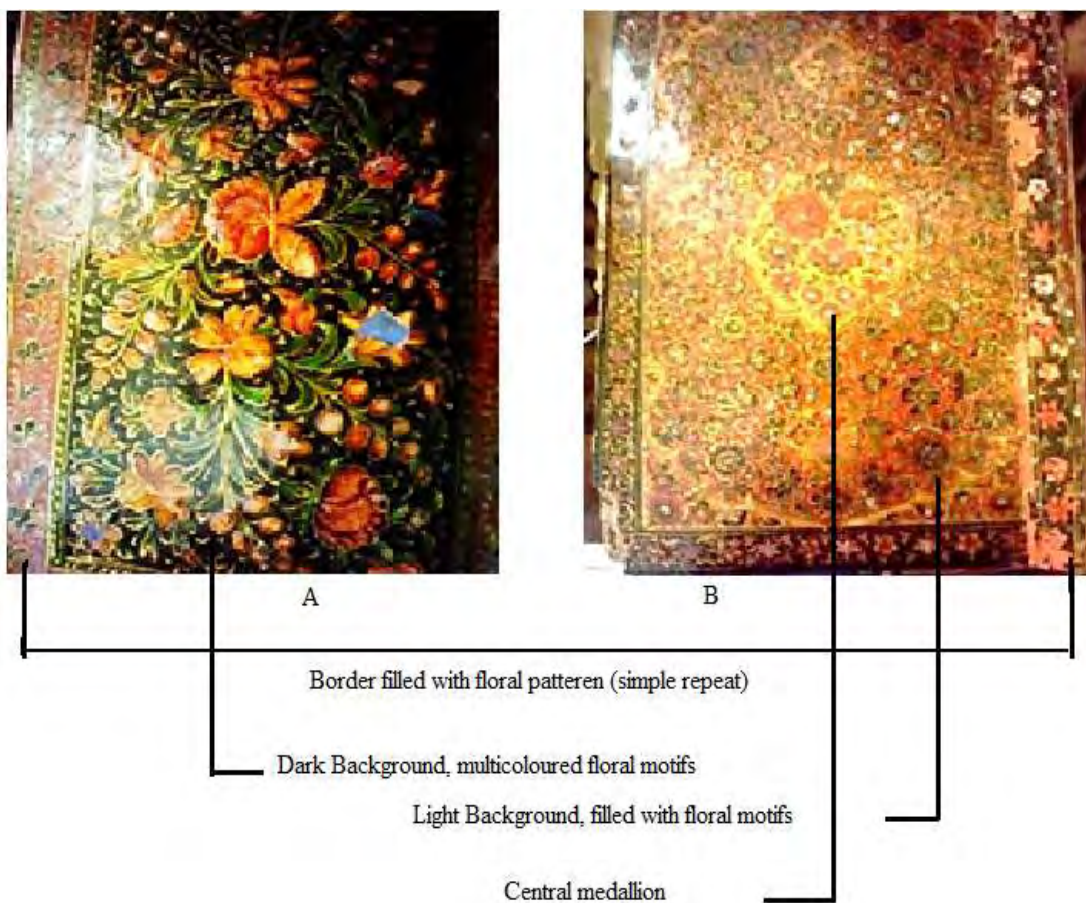


Figure. 16 A QMs. Acc. No 4164 Group B, B QMs Acc. No 780 Group A, both QMs from the 20th century. Lacquer filigree design on papier-mâché binding.

The chronological order of the QMs, indicating that every century has a different style of work. But it is also noticed that within the century, along with the similarities, different work is done by the artist and artisan. Physical analysis of QMs has identified the techniques which includes stamping, gilding and onlays and the identified material of binding includes leather, fabric, paper and pasteboard. The motifs used in QMs bindings are modified forms of some common patterns of subcontinent regions, Persian, Turkish and Central Asian.

The medallion or mandorla is common in the whole Islamic art but presented in a different way such as shamsa medallion, rosette, almond and diamond. No doubt the revival of traditions became strong when it was revised by the upcoming artists, QMs of GBL have shown these endeavours in the 16th century and 18th century. Acceptable changes occur in the physical appearance of the manuscripts in response to the new materials and techniques that generate the variety of sizes and design.

Chapter 4

Palaeographic Evaluation of Qur'an Manuscript (QMs) Present in the Ganjbkhsh Library (GBL)

The study of old historic handwriting is known as palaeography. The word of palaeography is derived from two Greek words *palaios* and *graphien*. The Greek word *palaios* means old and the *graphien* means to write. Jean Mabillon was a French scholar who wrote *De Re Diplomatica* which was published in 1681 (Catholic Encyclopedia 1913). He has been regarded as founder of palaeography but the term of palaeography (palaeography) was introduced by Bernard de Montfaucon in his book *Palaographia Graeca* which was published in Paris in 1708 CE (Encyclopedia of Middle Ages 2000).

The Palaeographic study deals with the formation of a text (Calligraphy), style and layout of a manuscript (Design).

One of the main purposes of paleographic study is to accurately read the old texts along with localization of handwriting and to date these writings. Palaeography is an important skill which enables us to read, understand, authenticate and date the old historic texts. It also enriches our knowledge regarding the methods of ancient writings and book productions. Palaeographic studies have received paramount importance for the philologists and historians. The palaeographic evaluation of the manuscripts requires sound knowledge of a particular language, different writing styles of alphabets of that language, symbols of abbreviations, regional vocabulary along with grammar and materials used for writings in a specific time period.

This chapter is comprised of palaeographic evaluation of the QMs of GBL collection which includes study of Arabic script style, scribes of Quran, illumination styles, chronological order and physical examination.

Further analysis of QMs text is adopted for the understanding of calligraphy of Qur'an, *sura* heading, translation, colophons, ownership notes and other marginalia, such as marks for textual division and recitation sign etc. Manuscript design examination is basically analysis of Illumination such as patterns (geometric and foliage), colours and ink.

1. Historical Background of Arabic Calligraphy

There are many opinions about the origin of the Arabic script and writing style. The famous scholars, Ibn Hashem Qalbi and Ibn Hashim, think that six persons¹ named *Abu jau* (*Abjad* ا ب ج د ه و ز ح ط ي ك ل م), *Hawaz* (ه و ز), *Hati* (ح ط ي), *Kalamoon* (ك ل م ن), *Zazigh* (ض ظ غ) and *Qarishat* (ق ر ش ت) were belonging to an Arab clan². Initially, they used their name's letter (ا ب ج د ه و ز ح ط ي ك ل م) for the Arabic alphabets and phonetic sound. Later on, some other alphabets were added such as *tha* (ث), *kha* (خ), *zhl* (ذ), *sheen* (ش), *zhl* (ذ) and *ghain* (غ) called *haroof-i-rawadif* (from the glossary /*Fahrist*) of Ibn al Nadeem, which was translated by M Ishaq Bhatti in 1929. Ibn al Hashem argues about the presence of these personalities. He says that they were decayed in Prophet Shuaib's time. Kaab has a different view. He narrates that they were from the Prophet Adam's period.

Another point of view is in the favour of prophet Ismail that he received the knowledge of writing from the heaven. He wrote on the clay tablets and backed them to preserve it for future generation. Ibn Abbas mentioned that three persons from Bolan clan, their names, *Mramer bin Mira*, *Aslim bin Sidra* and *Amir bin Jidrah*³ took initiative for the development of the Arabic script. Above mentioned views are only clues towards the development of Arabic script. There

¹ Ibn Hashem called these six people as Shahan-i-Madiyan.

² They were the people belonging to the last caravan that stayed in Adnan bin u reign.

³ Mira developed the letters. Sidrah made possible alignment of the letters. Jidrah introduced the dots to differentiate the letters.

is no complete result when, where and who formed the Arabic script. It is not a one-man or a short time activity. It took a lot of time and the developmental process that is still going on from generation to generation. Another two distinct approaches towards Arabic script, that it is Nabatean, or Syriac originated script (Abbott 1930).

Arabic language has a stronger oral tradition instead of written and writing was not considered as good skill among the Arabs before Islam. They considered, to write a document as a weakness of the memory. In the city of Makkah, only sixteen people belong to Quraish could read and write at the end of the 6th century (Hakim 1934: 51).

The time of the Prophet Muhammad, Qur'an was written on different accessible materials. This written activity has opened the door for the progress of the Arabic language. Muhammad bin Ishaq mentions that when the Qur'an scribe on different medium, then it spread the Arabic language throughout the world that made the Arabic language stronger in many ways (Ishaq 1929: 9). Writing of Qur'an was not an easy job. This work has been done with the help of a few literate people. According to Ibn-al-Nadeem, it was a difficult task and not done without practice (Ishaq 1929: 13). Islam spread rapidly beyond the boundaries of Arabian Peninsula that allowed different script to communicate and integrate. Identical and common script has a capacity to spread the knowledge and keep the religious manuscript alive. For the writing of the Qur'an calligraphic style was developed, the size of calligraphy, dependent upon the size of the Qur'an manuscript (Ishaq 1929: 13). A scribe receives a highly paid job at royal court. Their innovative ideas regarding Arabic script improved day by day. The addition of new efforts was made for the further refinement of Arabic script. This resulted in new Arabic script style which is called *Iraqi* style. It flourished and admired by the scribes of Mamnoon -ur-Rasheed court. According to Ibn-al-Nadeem Arabic script progressed in two forums such as for religious scriptures and for the administrative documentation of rulers. Ibn-al-Nadeem also

highlights the importance of *Qalam al Jalil* as it was used for the friendly communication of rulers. It was beautiful but very difficult to write. It progressed from one to twenty-four types (Ishaq 1929: 15). Many more styles of Arabic scripts were inaugurated by the scholars and scribes after *Hijazi* (*Makki* and *Madani*), *Hiri*, *Kufi* and *Iraqi*. Their new formation has different names such as *Sajlat*, *Dibaj*, *Marsa*, *Naskh*, *Thuluth*, *Rihani*, *Muhaqqaq*, *Riq'a*, *Ta'liq* and *Nasta'liq*.

2. Scribes of Qur'an and Arabic Calligraphy in the Subcontinent

Calligraphy may be defined as beautifully written/ formation of letters on any medium such as paper, stone and skin etc. Arabic calligraphy has a bright past and future because it is practiced as pious act. Arabic calligraphy reached its zenith in Iran, Turkey, Central Asian countries, Pakistan and India. The piece of land now called Pakistan⁴ has many styles of writing before the advent of Arabic calligraphy. Arabic calligraphy reached here in progressed form, the Arabic script and calligraphic style inspired the local writing system. A calligrapher always enjoyed a high status and awarded the titles⁵ among the other professionals. A scribe was considered as respectable religious person and upper class supported them. A skilled master of calligraphy can easily bring up a new generation of calligraphers. A scribe did different jobs at the royal court, as a historian, letter writing, religious documents, royal orders and preparation of manuscripts for royal libraries. Sometimes they were commissioned as a teacher for the princes, princesses and courtiers.

In return, the royal nobilities provided the patronage to the scribe's work (Blair 2006). There is a possibility that a saint or king can be a good calligrapher, but every calligrapher may not

⁴ Pakistan received the light of Islam at first in two different regions (Baluchistan and *Sindh*). At that time the Arabic calligraphy was limited to inscription on stone and manuscript.

⁵ Abdul Haq was awarded the title of Amant Khan by the King Shah Jahan.

be a saint or a king. Many famous calligraphers and scribe of Qur'an were kings, princes, princesses, scholars, *businessmen*, students and soldiers.

Qur'an Manuscript was produced for many reasons, for the royal court, for the present, common men, mosques, scholars, students and for commercial point of view. Such as Muhammad bin Ishaq mentions a person named Khalid bin Abu Ailayaj⁶ as a famous calligrapher of Umar bin Abdul-Aziz's regime (717-720) and famous Abu Yahya⁷ named Malik bin Dinar adopted this skill professionally and made fortunate. Many calligraphers set up their own schools to develop the skill of calligraphy for earning purpose (Blair 2006). Tariq Masud mentions that several schools for Islamic teaching⁸, are established in the years of 1030-1040 CE (at the time of Mahmood's son Masud) in the areas between Attock and Hassanabdal (Masud 1982). Ancient Qur'an folios have been discovered from the mosque of Mansura⁹. It indicates that the angular *Kufic* is introduced in Pakistan in the early period of Islam (Iqbal 2007). The calligraphic expression such as *Thuluth*, *Naskh*, *Kufic* and *Thuluth* with *Kufic* was known to Ghaznavid (1022-1186 CE) period. Muhammad bin Idris was a famous calligrapher of *Naskh* and *Thuluth* script and renowned scribe of the Qur'an¹⁰.

Sultan Ibrahim bin Masud¹¹ was also a skilled calligrapher. Other famous calligraphers of that period were Naji-bud-din, Abu Bakr, Jamaluddin Lahore and Abu Hamid (Dar 1981). As Delhi

⁶ The calligrapher who wrote the last sura of Qur'an on Masjid -i-Nabvi with gold water. He also scribes the Qur'an for the Umar bin Abdul-Aziz, but it was returned to him due to its heavy demand/cost by the calligrapher.

⁷ A slave of Osama bin Loi.

⁸ These schools were under the charge of the Sarugh (A military officer).

⁹ An Arab populated city near shahdadpur in *Sindh* in 8th century.

¹⁰ He preferred thin paper, black ink, design with golden borders and used calligraphic style as *Thuluth* for heading of sura and *Naskh* for the whole text.

¹¹ Fragments of inscriptions from the tomb of sultan Masud I and Ibrahim at Ghazna indicated that variety of *Naskh* script (ornamental and simple) is used frequently.

became the capital city in Ghaurid's time (1148-1215). The art centre was shifted from Lahore to the capital city. Sultan Nasir-ud -Din Muhammad (1246-1265) belonged to Slave/Mamluk Dynasty. He himself was a good calligrapher of Qur'an manuscript. He also acknowledged the innovative work of calligraphers. Sultan Balban (1266-1287) encouraged the calligraphers especially Qur'an scribe by paying them heavy amounts. Khan Shaheed bin Sultan Balban such as to scribe the Qur'an. He was very fond of manuscript collecting. He collected about 20,000 couplets of renowned calligraphers of his time (Dar 1981: 17)

. Khilji period (1290-1320 CE) is considered most suitable for the development of Architecture, literature, art and craft in the subcontinent. Malik Alauddin and Shihab-ud-Din received fame as best calligraphers of Khilji period. *Naskh* transform in many styles (bold, vigorous and elegant) and leading to the Bengali *tughra* style. Three styles prevailed in calligraphy, practised by the calligraphers, such as Delhi imperial style¹², Bengal and Provincial. Yazdani generates an argument regarding Provincial style as it came into being just because of distance from the core (where a style originated from) such as a script being good enough in the core region, becomes somewhat rugged at nearby the core and clumsy at distant from the core.

But in Khilji period Provincial style has admirable and good features. Sultan Muhammad Tughlug (1320-1412 CE) made it sure that every big Mosque has an adjacent library in every city (Dar 1981: 18).

Provincial style¹³ has the unique formation of letters. The famous styles belonging to Firuz Shah Tughlug 's regime was *Naskh*, *Thuluth* and ornamented *Kufi* mix *Thuluth*. Syeds (1414-1443) and Lodhis (1451-1526) promoted the traditional styles and took influence from Turkish

¹² This style is a mixture of *Kufi* and *Thuluth*.

¹³ Letter *Alif* /upper portion of vertical stroke were thick, and the lower part is thin. This style was common in 13-14 th century.

calligrapher Yaqut Al-Mustasimi (Dar 1981). A very high standard *Naskh* was used for copying the Qur'an. But in other documents, it is very low. The most innovative style of calligraphy in Sultanate period is *Khatt-i-Bihari*¹⁴ (earliest date manuscript bears the date 1277). Dar discusses that *khatt-i-Bihari* is originated in Pakistan in the 9th century, spread out from its boundaries and reached central Asia, where it is called *Thuluth -i- Turkistani* or *Shaiva-i-Turkistani* (Dar 1981).

Mughal period (1526-1712) is called the zenith period of Muslim calligraphy. Great development in art and craft is reported. It was due to the personal interest of royalty and nobility regarding calligraphy. Master calligraphers were appointed for the translation of official documents of business, religion, communication and for the interior of Public/ Private building decoration. They worked as tutors of royal families and served the community school attached to a Mosque (centre of manuscript production). Babur is said to have had a great love for calligraphy. This great devotion toward calligraphy had transferred to his lineage such as Jahangir, Shah Jahan and his four sons to Bahadur Shah Zafar were renowned for best calligraphy (Iqbal 2007). Mughals invited the Persian and central Asian calligraphers along with the local talent for illuminated manuscripts. As King Akbar established the independent department for manuscript illumination under the supervision of Khawaja Abdu's Samad and Mir Syed Ali Tabriz. Initially, Mughals were inspired by the Persian calligrapher's work and style, particularly formation of letters in the form of circles and dots composition. In the late 16th century, Persian calligraphers took influence from Turkish calligraphers. However, Deccan school of calligraphy inspired the Delhi calligraphers due to the quality of work. The reforms in the calligraphic script also took place as "*Nasta'liq*" replaced *Naskh* for casual writing (Iqbal 2007). The court calligrapher of Shah Jahan, Mirza Muhammad Hussain

¹⁴ This style was very popular in Bengal. It is a mixture of *Naskh* and *Thuluth*.

invented the *shikasta*¹⁵ that was used for royal decisions and literature. During the Mughal period, calligraphy centres were Agra, Fatehpur Sikri, Thatta in Sindh¹⁶, Multan¹⁷ and Lahore in Punjab, Kashmir¹⁸ and Deccan. During and after the Mughal rule, Lahore received special importance from the Raja Ranjit Singh who made this city as a centre of art and crafts. Saif-ur-Rahman Dar describes that the art of calligraphy declined due to the downfall of the Mughal empire, rising of the British rule in the Subcontinent and the invention of the printing press.

Among others, Lucknow¹⁹, Delhi and Lahore were the living centres of calligraphy. Due to the lack of interest/patronage and communication, these centers have no connection (each developed their own style) (Dar 1981). Karachi²⁰, Lahore and Peshawar schools are important centres for calligraphy development. Many skilled calligraphers migrated to the newborn state of Pakistan in 1947. They practised the *Naskh* and *Nasta'liq* style of writing. Only one style (*Nasta'liq*) out of seven was in fashion in the 20th century.

Peshawar school of calligraphy set up by the M.M. Sharif (a nephew of renowned calligrapher of Gujranwala) Maulvi Ali Minhas with a modified style of calligraphic script. His son continued his mission in a most possible way.

¹⁵ Mirza Muhammad Jafar and Jalal-ud-din Yusuf were the masters of *Shikasta* style.

¹⁶ Calligraphers from *Sindh* were Mir Masum Bukhari, Mir Mahmud, Sheikh Mir Muhammad, Sheikh Abdul Wahab, Sheikh Bayazid Purani, Qutb-ud-din bin Mahmud, Ahmad Ansari, Tahir bin Hassan sayyed Ali, Shaikh Muhammad Fadhil.

¹⁷ Calligrapher from Multan, Sayyed Himayatullah Bulhari and Zakariya bin Ustad Muhammad bin Jiwan Multani.

¹⁸ Calligraphers from Kashmir has a series of calligraphers attached to the Mughal court such as Muhammad Hussain Kashmiri Zarrin Qalam.

¹⁹ It was started by the Nawab Shuja-ud- Daula (1752-1774) and progressed by Nawab Asaf-ud-Daula (1774-1798). He gave the high status to the calligraphers such as Hafiz nur Ullah, Abad Ullah Baig and Qazi Naimatullah Lahori.

²⁰ Muhammad Yusuf migrated to Karachi and set up Karachi school of Calligraphy.

3. The Arabic Script Styles GBL's Qur'an Manuscripts

GBL has a variety of calligraphic styles and their sub styles. The common style is *Naskh* and its varieties. *Thuluth* is mostly used for the headings and beautification purpose. An Indian originated style called *Bihari/Bihari* (Fig.2) is also found in QMs but mostly of translated Qur'an. It is a mixture of *Naskh* and *Thuluth*, readable as *Naskh* and elongated as *Thuluth*. All styles have some different attributes of letters and style of pen. Ibn Muqla introduced the right oblique trimmed nib of the reed pen for beautiful writing. Sheila S. Blair mentions the ten basic principles of writing such as *Tahqiq*, *Tahdiq*, *Tawiq*, *Takhriq*, *Ta'riq*, *Tashqiq*, *Tanmiq*, *Tawfiq*, *Tadqiq* and *Tafriq*²¹ (Blair 2006).

Naskh style of script is modest (*Naskh* beautiful, mature, mix with *Thuluth*, *Yaquti*, *Bihari*, *Kufi* and *Turkistani* etc.). It has many shapes from its beginning till now, such as broken cursive, *Khatt-i-badi* and rounded script. It is also associated with the name of calligraphers and places. For beautiful writing, many rules and regulation were set up. One of them was to use the *alif* (ا) as unit, other letters such as *ba*, is made of two strokes, one horizontal and other vertical. The sum of these strokes is equal to the *alif* (ا). The ratio between the vertical versus horizontal can be 1:1 and 1:5 or changed due to the size of the writing. Another attempt is done for the formation of letters and its method. A Persian historian Najm-al Din Abu Bakar Muhammad Ravandi defined the construction of letters in a rounded script (*Naskh*, *Thuluth*, *Riq'a* and

²¹ *Tahqiq* means precision, due to this rule each letter has its own shape of identification. *Tahdiq* means making eyeballs, here a letter of rounded shape has space in the middle. *Tawiq* is a rounded front, middle and last part of the letter, such as *waw* and *fa* etc. *Takhriq* keeps the lops of letters such as *ha*, *ayn* and similar. *Tariq* is lengthening of the letters such as *nun*, *mim*, *ya* etc. *Tashqiq* defined the proportion and equilibrium of the letters. *Tanmiq*, writing all letters very neatly. *Tawfiq* shows that all letters are in straight line. *Tadqiq*, writing the letters last part with the edge of the pen and *Tafriq* keeping the letters separate.

Muhaqqaq) is due to the circle, segments of a circle, diameter and straight line. But the application of this method is difficult for all letters of alphabets.

The letters in broken cursive of Ibn Maqla’s style indicating of elongated bodies (formed horizontally) of *sad* (ص), *kaf* (ق) and *ha* (ح), *ya* (ي) turned backwards under the proceeding word. GBL’s QMs has *nun* (ن), *ya* (ي), *sin* (س), *ṣad* (ص), *ḍuad* (ض) *waw* (و), *kaf* (ق) and *mem* (م) designed as the above-mentioned style of *ya* (ي) (for example, GBL QMs Access numbers are 3738, 4846,6517,2390,10583, 11728, 4224, 1755, 3644, 3924, 11595, 12242, 13092, 13665, 1132, 827, 3696, 13401, 13402, 12558,14264 and 7936).



Figure. 1 A QMs Ace. No 3738, *Naskh* mixed with *Thuluth* (Juxtaposed of *Muhaqqaq* style of writing), Both A and B has same production year is 1591.

In figure 1 Arabic text is enclosed within ruled frame. A is indicating the alignment of the text as end letter of the word written in elongated way that covers the next word’s first or two letters such as *ba* (ب) and *ha* (ح) inside the letter *ya* (ي), B showed the letter *nun* (ن), C is showing the *sin* (س) and *waw* (و) (D) and E indicates the *waw* (و), *ya* (ي) and *Ra* (ر) and *sin* (س). QMs (Fig.

1) shows the features of the *Muhaqqaq* style. *Muhaqqaq* is one of the old styles of Arabic script.

According to the Qalqashandi *Muhaqqaq* style was used for the copying of Qur'an in 13th century (Qalqashandi 1963). At the beginning of the 13th century, *Muhaqqaq* style was written in a formal way and became a part of Mamluk tradition.

According to Soucek this style was beautified with the help of one-third pen stroke's curve and straight lines (Soucek 1979).

In *Muhaqqaq* *alif* is straight with a pointed end and slanted to right. The combination of *lam* (ل) and *alif* (ا) was written in *al-warraqiyah* (.) in Mamluk *Muhaqqaq* style (Gacek 2009).

Whereas QMs has written *lam* (ل) and *alif* (ا) together in *al-muhaqqaqah* (ﻻ) style, that is a characteristic of Indian *Naskh*. This QMs has both qualities of *Naskh* and *Muhaqqaq*.

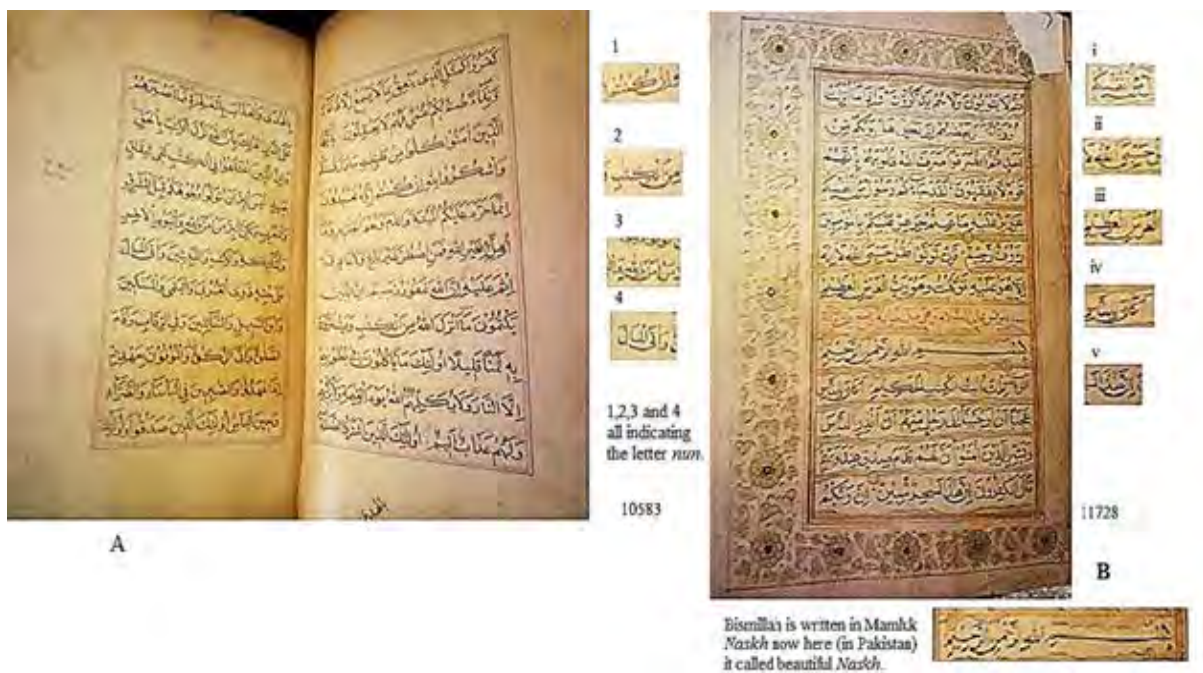


Figure. 2 QMs A, *Naskh* mature. Only *nun* and *ya* (1,2,3,4) is grasp the other letter. Both A and B has same production year 1688, in B, *nun* (i, iv, v), *ya* (ii) and *sheen* (iii) are main letter used to cover the up to next letter.

In figure 2 QMs A and B have both style of *al-muhaqqaqah* (ﻻ) and *al-warraqiyah* (لا) in each page of the QMs. Both QMs has the same year of production and same writing style. s



Figure. 3 A QMs Acc. No 4846, style of *Naskh* mature. Year of production is 1591, B QMs Acc. No. 11559 *Turkistani Bihar/Bihari*. Translation is done under the Arabic text.

The important features of *Naskh* include a fine rounded script and letter formation based on a short horizontal stem. In broken cursive, the tail of letters is very thin (curve line) and *nun* (ن) sweep below the next word. The words generally established in good space. In (Fig. 3) B QMs calligraphic style looks such as a *Bihar Turkistani*. It is written without spaces. Mostly *Muhaqqaq* and *Thuluth* have no spaces between the words. The characteristics of *Bihari* are quietly different from both styles. Such as *Bihari* is written with spaces, wedged shape letters not congested and maximum lines per page is 9-11. In (Fig. 2) QMs indicating the 17 lines per page and (Fig. 2-1,2,3,4) pointed the *nun* (ن), *sin* (س) and *waw* (و) which grasps the other letters of the next word. This *Naskh* is written in a bold style that gives the impact of *Bihari*, but some features of *Muhaqqaq* or *Rihani* style. Both styles (*Muhaqqaq* and *Rihani*) have the close resemblance to the *Naskh*.

Rounded scripts such as *Naskh* and *Rihani* have similarities as well as differences in many ways. Both are small, *alif* (ا) is written by the measuring of five dots of selected pen. Both have unpainted letters and some letters written below the text such as *ayn* (ع), *ṣad* (ص), *ta* and *za* (ط,

ظ). Vocalization and *tinwin* (ٲٲٲٲ) is large. Both have very clear differences as well such as *Rihani* is straight-lined and simple, but, *Naskh* is opposite to it. Serif²² is used in *alif* and *lam* (ٲ, ٲ) in *Rihani* but not in *Naskh*. The other characteristics of *Rihani* are, flat *mim* (ٲ), straight tail of *ra* (ٲ), proportionally larger *dal* (ٲ), the bowls of final *sin* and *nun* (ٲ, ٲ) are flat on the bottom. However, in *Naskh sin* and *nun* (ٲ, ٲ) letters on the top. *Rihani* considered as it is a medium of roundness and weight between the *Thuluth* and *Muhaqqaq* (Blair 2006: 245).

During the 12th century *Naskh* mixed with *Thuluth* and broken cursive. This elegant style is adopted by Ali ibn-Jafar²³ as a display script, however, at that time a rounded script was preferred for the manuscript of the Qur'an. He also used the diagonal strokes of vocalization as Ibn al Bawwab used it for heading (Blair 2006)

The *Rihani* style used by the great calligrapher Yaqut-al-Mustasimi was more delicate. The style of writing reformed by changing the size of the pen's nib. Khalifa Sheemy says that a calligrapher designs a reed pen according to his/her hand, and first two finger's height creates a slant or angle.

This method is basically indicating the angle of a pen, that to be cut in different size. Ibn al Bawwab used the right-angled pen, however, Yaqut prefer the oblique, long pointed and thick cut of the pen. Qazi Ahmad praised the style of Yaqut as it is more graceful than that of his master. Yaqut used the thin, and long serifs which break the tradition of thick curled serifs of his time (Blair 2006).

Yaqut's *Rihani* script is more stylish than his juxtaposed script and traditional rounded script of his time. In Pakistan, Yaquti style is replicated by many calligraphers in the script style of

²² A short line joined to an alphabet near the top/bottom.

²³ A famous calligrapher of Abu -al- Qasim Mahmud- ibn- Zangi's court.

Naskh, *Thuluth* and *Naskh Jali* script, in Figure 4A, look such as *Thuluth* script as hook added at the tail of final *ra*(ر).

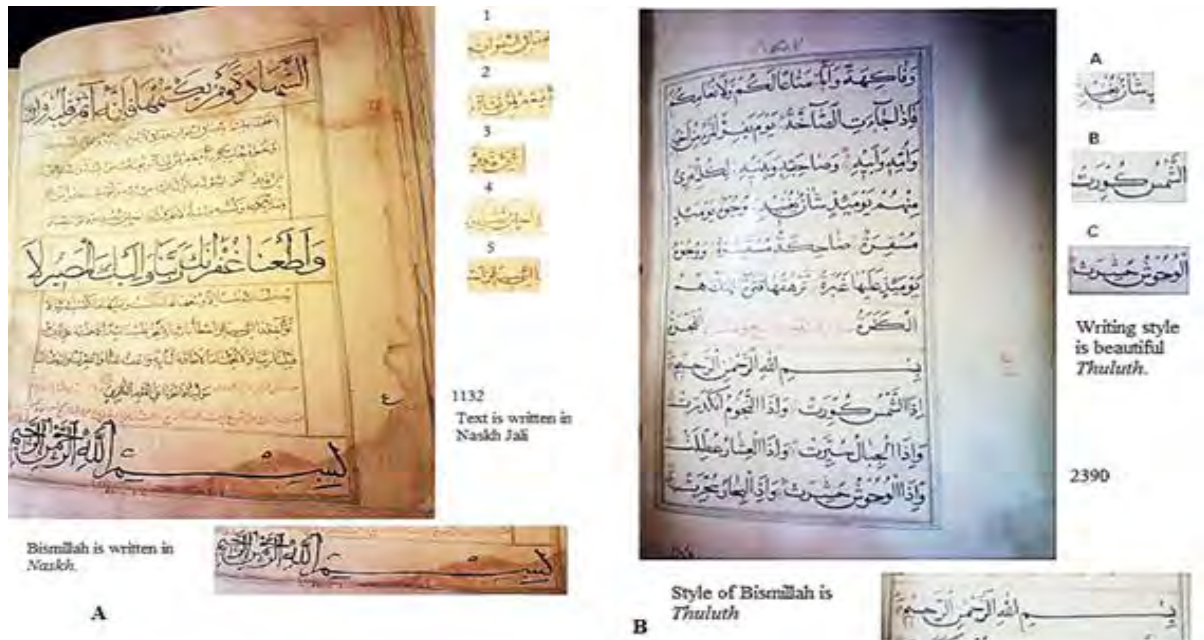


Figure. 4 A QMs year of production is 1659. (A *nun*, B *sin* and C indicates the letter *shen*). *Ra* in b, c, *waw* in b, c a hook is added to the letters. B QMs. Production date 1830, text style is *Naskh Jali*. Hook is attached at the tail of the final *ra*, as in *Thuluth* style.

Final *nun* (ن) sweeping below the next word, *alif* (ا) and *lam* (ل) connected to the other word (Fig. 4 A) such as in *diwani* style considered to be a style of *Riq'a*²⁴ (its larger counterpart is *Tawaqi*). Ibn-al-Nadeem mentioned this style as it is derived from the *Khafi -fal- Thuluth al kabir*, used for signing edicts. Such as *Thuluth*, *Riq'a alif* is also bent towards the bottom left. The final *ha* (ح) is presented as in *Muhaqqaq* style (Blair 2006: 207). Connected *ha* (ح) is noted in *bismillah* بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ (Fig. 3, 4 and 5). It means all QMs collected from GBL have some characteristics of *Muhaqqaq* style incorporate with *Naskh* and *Thuluth*.

The features of *Thuluth* is also noticed in QMs. *Thuluth* mean three, the name probably kept for it due to its third size of another famous script of its contemporary. It was used for

²⁴ Mean to patch, repair and piece together. This script is used by the secretaries of Abbasid court.

decorative purpose in architecture, inscriptions, heading, marginal marks and colophons but rarely in Qur'an manuscript. It was formulated in Umayyad period but received fame at Abbasid time. Formation of letters in *Thuluth* are inclined relatively far below the baseline. In descending, letters such as *lam* and *nun* are shallow and elliptical in shape due to formation of letters (Blair 2006: 246). Sometimes calligraphers add a hook at the end of *ra*, *waw*, and final *ya* (ي, و, ر) (Fig. 4 B).



Figure. 5 A QMs, Production year is 1722. 1,2,3,4,5 and 6 showed the letters, nun, ya and *sin*, B QMs production year is 1785. C QMs. 1,2,3 4 shows the elongated *nun*. Both C and D has the same production year, 1785. B QMs.1,2,3,4,5,6 shows the *nun* that hold the other word.

These manuscript shows (Fig.1-5) the traditional values of the old style which is also prevailed in the late 16th century to 19th century along with modification.

The question arises why it is practised (one letter holds the next one). The possible reason may include lack of skill, space, just to emphasise the letter, regional preference, transitional transformation of cursive style to *Naskh* style or it became famous and scribed by the other (his followers or students etc.).

Naskh created many styles of writing. *Thuluth* is called elongated *Naskh*. *Muhaqqaq /Rihani* is a small and congested script of *Naskh*. Each ending letters has a long tail which holds the next word, half or quarter. Ibn-al-Bawwab is famous for *Muhaqqaq* script for the manuscript of the Qur'an. In the beautiful *Naskh* (Total 166 beautiful *Naskh*) the letter *nun* (Fig. 1-5) is in cursive style but slightly elongated. Now manuscripts are to be judged by the formation of long vowels *alif*, *waw* and *ya* (ا, و, ي) and the style of vocalization (short vowels are *Fat'ha*, *Kasra* and *Dam'ha* (َ ِ ِ)). Pair of script are used from the 10th century such as one style for heading and other for text, or one for Arabic text and other for translation and explanation. Several styles are introduced by the calligraphers for that purpose. Explanation and translation written in the left, right, top and bottom margin in a simple or oblique style (Fig. 5B), in another style both text design in the same line (one phrase in Arabic followed by the vernacular translation as in Fig. 3B) Blair discuss it as this style allows the teacher to recite the Qur'anic verses and student (seated beside the teacher) can follow the meaning (Blair 2006). The main difference between the translation and explanation is very clear. Translation is meaning of the Arabic text (it is short) however the explanation is a long description of the verse (sometimes it exceeds from one page). For better understanding, teacher preferred the manuscript of Qur'an with translation and explanation for the student. These Qur'an especially, were scribes for the teacher and student.

3.1 Types and Sub Types of GBL collection QMS

QMs are arranged in the typology of the Arabic script style. After close observation and physical analysis of QMs, divided into group A (with translation and explanation) and B

(without translation and explanation). The most identified scripts style of QMs is *Naskh*, *Thuluth*, *Bihari*. These styles of Arabic script (QMs) have sub-types along with hybrid text such as *Naskh Kufi*, *Muhaqqaq Amikhta* and *Nasta'liq* etc. Table 1 indicates the types of *Naskh*, that are identified in this study.

Table 1 Type of *Naskh*

Sub Type of <i>Naskh</i>	Frequency
<i>Naskh</i> Beautiful	168
<i>Naskh</i> Mature	80
<i>Naskh</i>	46
<i>Naskh Turkistani</i>	3
<i>Naskh Turkistani Bihari</i>	2
<i>Naskh</i> Yaquti	2
<i>Naskh Turkistani</i> Beautiful	2
<i>Naskh Jali</i>	1
<i>Naskh</i> such as <i>Kufi</i>	1
Total	305

Table shows the frequency of *Naskh* and its type.

QMs group A has many manuscripts written in *Naskh* beautiful such as QMs 4007, 2069, 682, 773,825, 5176, 6891, 3603, 3119, 3229, 310, 2503, 2519, 2545, 2951, 6224, 6489, 9243, 10575, 12627, 13781, 4041, 4852, 8145, 5105, 1530, 1949, 2217, 2471, 2872, 3305, 3752, 4114, 4599, 5334, 4074, 8531, 10091, 10576, 12690, 13828, 780, 12241(total 43 QMs which is 14.09%).

QMs group “B” numbers are 781,4738, 5331,13667, 324, 1524, 2434, 2586, 4165, 5063, 6067, 6517, 1586, 12888, 13786, 3077, 1791, 13280, 1406, 12725, 1601, 1612, 1614, 2070, 2075, 2275, 2583, 3070, 4192, 4195, 4508, 4509, 4542, 4739, 4923, 4948, 5138, 5876, 6110, 6247, 9565, 7412, 10071, 11728, 11745, 12626, 12884, 12885, 12886, 13312, 13666, 13782, 13784, 902, 1754, 3334, 2670, 4196, 1687, 5295, 8450, 1740, 1755, 1756, 1757, 1790, 2668, 2722,

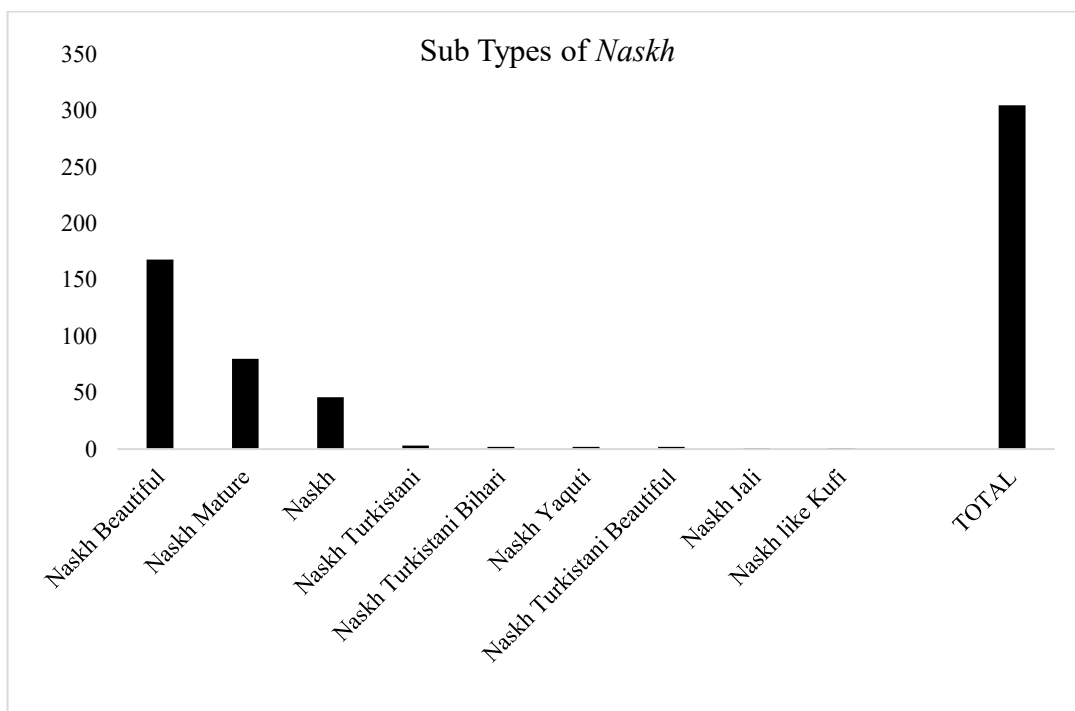
3644, 3924, 4218, 8406, 4844, 4921, 5660, 5732, 5802, 5817, 5966, 6004, 6464, 8605, 8607, 6942, 7463, 7826, 7817, 11595, 11743, 12242, 12647, 12812, 13092, 13662, 13608, 13696, 1852, 827, 5982, 7818, 2203, 6461, 6806, 7566, 9648, 12529, 13402, 13584, 13610, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 3583, 3692, 3695, 4829, 3263, 11643, 12558, 11597 (total 125 QMs almost 40.89%).

Group “A” QMs of *Naskh* mature are 13671, 4106, 11629, 3442, 12941, 5059, 7692, 12092, 3609 (total 9 which is 2.9 %).

QMs of group “B” are 4166, 3510, 4846, 12071, 4655, 10583, 10584, 10585, 11528, 13609, 5905, 1998, 2065, 2247, 2548, 3691, 3722, 4559, 4654, 4708, 4713, 4922, 4929, 5151, 5296, 5297, 6225, 11744, 12240, 12699, 13783, 13803, 3444, 4327, 6519, 2691, 3076, 2248, 2251, 3155, 1826, 2076, 2246, 2349, 2352, 5297, 6520, 7152, 7881, 7888, 8062, 8659, 3360, 13800, 2354, 2376, 3696, 3697, 3835, 4164, 4661, 4771, 4773, 4862, 4863, 4928, 4947, 4949, 5002, 5189, 5229 (total 71, that is 22.84%).

Total *Naskh* QMs of “A” are 12 (3.9%). Their assigned numbers are 6623, 3330, 10577, 1632, 1633, 1529, 3557, 7378, 7936, 10661, 12085, 11564.

Total *Naskh* QMs of “B” are 35 (11.5%). QMs Ace. No are 13791, 2844, 9570, 13827, 9517, 3447, 10049, 12168, 13663, 13665, 13703, 12887, 2005, 3449, 3513, 9516, 9574, 9769, 11598, 11599, 12182, 13359, 13401, 13664, 13670, 13792, 13802, 13820, 5663, 11528, 13583, 11563, 13655, 13683, 14264.



Graph.1 Shows the frequency of sub types of *Naskh*. It is generated in Microsoft Excel 2003.

Naskh Turkistani QMs from “B” are 5671, 1792, 2306. *Naskh Turkistani Bihari* QMs from “B” 7310, 7891. *Naskh Turkistani Beautiful* and *Naskh Yaquiti* has two QMs of “B” 1616, 2079 and 13672, 13677. *Naskh* such as *Kufi* 7713 and *Naskh Jali* 1132. Overall *Naskh* QMs has the top score (305/396, that is 72.26 %).

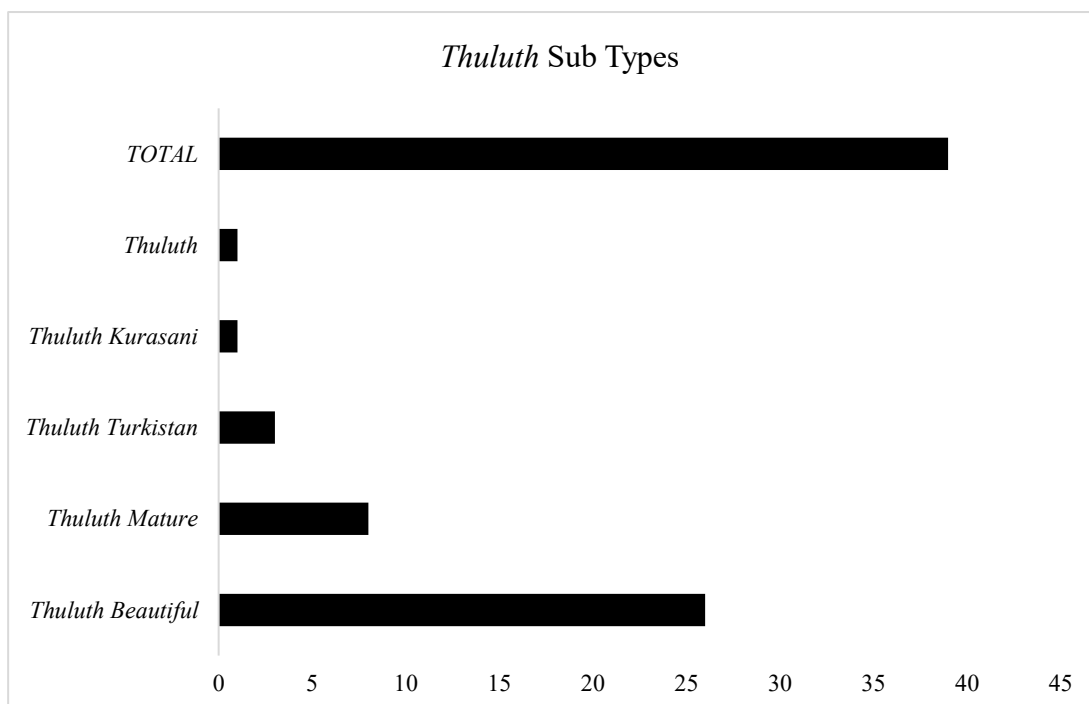
Table. 2 Types of *Thuluth*

Sub Types of <i>Thuluth</i>	Frequency
<i>Thuluth Beautiful</i>	27
<i>Thuluth Mature</i>	8
<i>Thuluth Turkistani</i>	3
<i>Thuluth Kurasani</i>	2
<i>Thuluth</i>	1
TOTAL	41

Table. 2 indicates the types of *Thuluth*.

QMs of *Thuluth Beautiful* of “A” are 623, 4100, 2064, 2530, 1615, 3074, 2217, 5185 (total 8).

Group “B” QMs are 760, 6234, 2068, 2391, 9559, 13826, 1031, 3646, 7191, 7937, 13804, 2390, 1176, 1523, 2468, 4542, 10581, 1646, 1912 (total 19).



Graph.2 It shows the frequency of sub types of *Thuluth*. It is generated in Microsoft Excel 2003

Thuluth Mature QMs are all from “B” 1627, 1784, 5308, 5966, 2091, 3807, 1630, 3888.

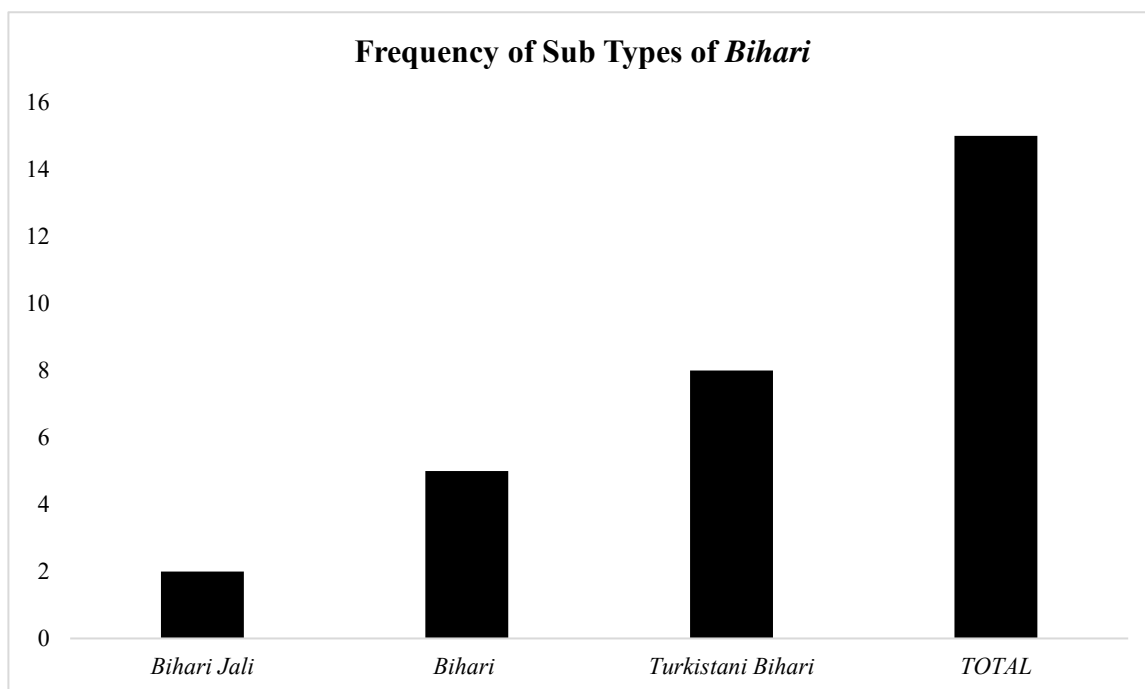
Thuluth Turkistani “A” has one sample 1597 and “B” two 2245, 1631. *Thuluth* has one 1405 and *Thuluth Kurasani* two QMs from “B” 2051, 5108.

Table. 3 Types of *Bihari*

Sub Types of <i>Bihari</i>	Frequency
<i>Bihari Jali</i>	2
<i>Bihari</i>	5
<i>Turkistani Bihari</i>	8
Total	15

Table. 3 shows the types of *Bihari* style.

Bihari Jali “A” QMs 787 and for “B” QMs 320 (Total 02) *Bihari* (Total 05), “A” has one 513 and “B” has four 1379, 11596, 13785, 12295 and *Turkistani Bihari* has 7 from “A” 2698, 1618, 4170, 1599, 1598, 824, 11559 and one from “B” 3587.



Graph.3 Graph is about the frequency of sub types of *Bihari*. It is generated in Microsoft Excel 2003.

Table. 4 Miscellaneous Calligraphy Type

Miscellaneous Calligraphy Type	Frequency
<i>Naskh and Thuluth</i>	28
<i>Naskh and Nasta'liq</i>	3
<i>Nasta'liq</i>	1
<i>Kufi</i>	1
<i>Muhaqqaq Amikhta</i>	1
Total	34

Table. 4 Indicates the other types of the Arabic script style.

QMs *Naskh and Thuluth* from “A” 4107, 2209, 1619, 4772, 5107 “B” 986, 3073, 3100, 3738, 3856, 3849, 4008, 4845, 899, 2350, 3450, 3684, 3737, 5065, 3448, 6659, 4224, 2219, 2656, 5577, 6480, 10925, 5248.

Naskh and Nasta'liq QMs is “A” 12913, 13256, 13656. *Nasta'liq, Kufi* and *Muhaqqaq Amikhta* has only one QMs (B) 11565, 12944, 988.

4. Illumination Style, Chronological Order and Physical Examination of QMs

Illumination is a process of beautification. Most of these QMs are illuminated with different colours, designs and signs of indicators. Indicators are added for the better understanding of the Qur'an by the non- Arabic Muslims. The indicator signs are placed at the beginning of the *juz* /part and *sura*, *aya* stop, *manazils*, for a bunch of 5, 8 or ten *ayat* (*raku*), bow (*sajda*) etc. Initially, these signs were in the form of rosette, star, three dots (red, yellow, black or golden) and triangular shape etc.

The aya marks are formed of many shapes from simple to complex (foliage and geometric). Initially, dots and lines were introduced at the end of *aya*, gradually it was transformed into 4, 5, 6 and 8 dots of rounds and flowers in golden, blue and red colour. With the formation and development of Innovative art, colour combination and aesthetic are involved in the illumination process. These are done by the artists at their own will or it may be under the patronage of the royal court.

Social values and economic condition of a region have a capacity to improve or reduce the quality of art and craft. Theoder W. Adorno's aesthetic theory correlates the art with society (Adorno 2002). It may refer to the change in the art forms due to the change of values, ways, fashion and behaviour of a society.

Sometimes a variety of art forms of the different societies are present in a territory. No doubt, transformation of art forms is based on changing times, fashion and public mood. It can be produced for the communication and beautification of an object. These designs are used for both purposes in the manuscripts of Qur'an available in the Ganjbkhsh Library, Islamabad. However zoomorphic signs are not used in all of these Qur'an manuscripts.

Oleg Grabar divided art forms into two types, secular²⁵ and sacred²⁶ art. Islamic art forms are sacred, but not far from secular art forms (Grabar 1913).

QMs of GBL indicates that the art forms (14th till 20th century) have absorbed the regional effects and cultural exchange within acceptable circumstances of Subcontinent. The present study of Qur'an Manuscripts of GBL shows that the expansion of art forms in QMs has no boundaries. But it has some values that show the stratification of QMs due to territory, environment, colour, position and wealth.

Islamic art grasps the whole world due to space and acceptance policy. The activity of an artist starts from the spiritual activity with the help of concept, investigation and aesthetic. Sometimes his/her activity not only for the sake of art but show his devotion to God (Aziz 2004). In Qur'an manuscript production, the artist feels proud as he/she is doing a pious act and society acknowledge their work and position.

The manuscripts of Qur'an present in the collection of Ganjbkhsh Library, Islamabad indicate that valuable material is used to produce manuscripts. The texture, design, colour and techniques are all well presented.

4.1 Illumination Styles and Chronological Order

The present study includes the evaluation of three hundred and ninety-six manuscripts of Qur'an which are available in the collection of Ganjbkhsh Library, Islamabad.

These manuscripts of Qur'an are divided into two groups A and B (as shown in Table 1 and 2). These Qur'anic manuscripts are further subdivided on the basis of chronological order. The

²⁵ When these art forms are defined in social and individual terms.

²⁶ Defined as spiritual and cultural terms.

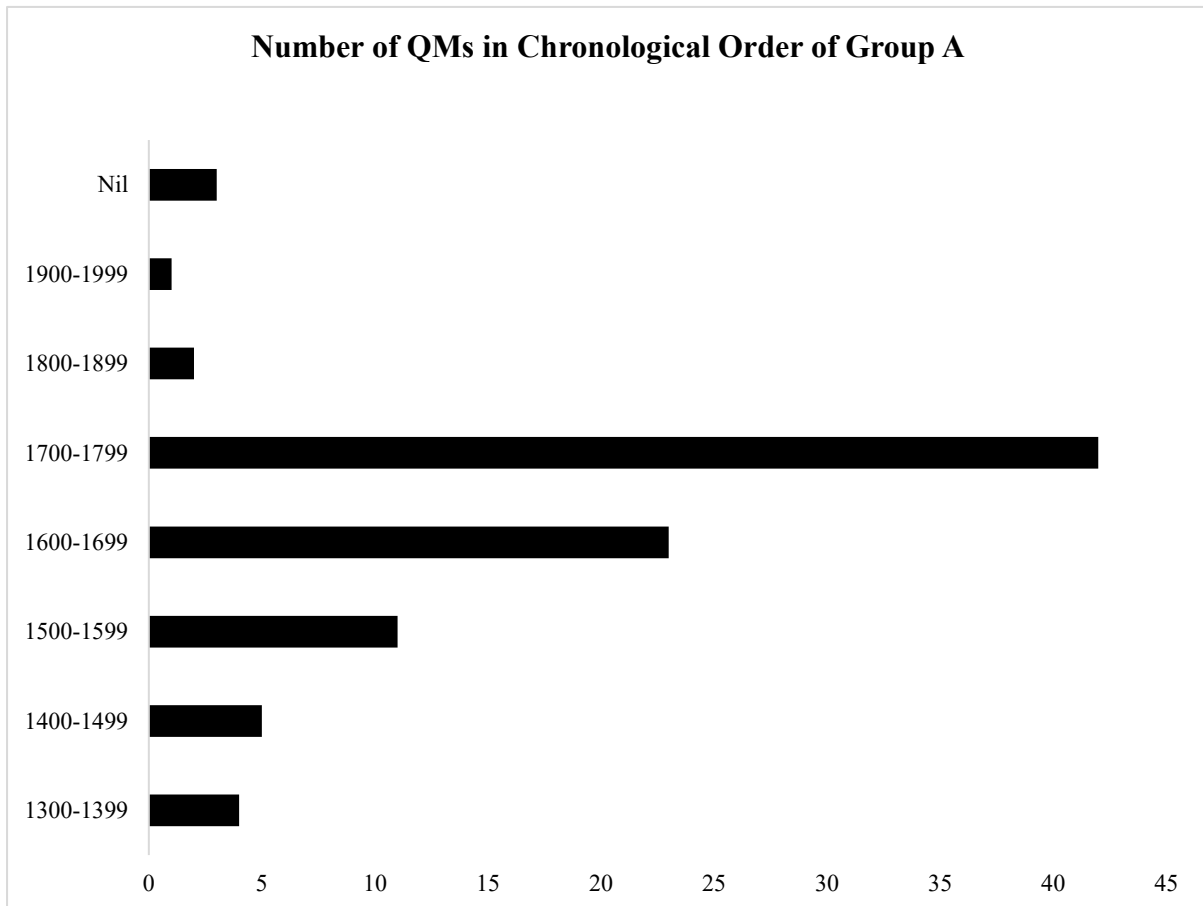
study reveals that there are four manuscripts of Qur'an belonging to group A from 14th century CE and similar number (four manuscripts of Qur'an) is available from the group B from the same period with a ratio of 1:1 between the group A and B. The manuscripts from the 15th century include five from group A and nine from group B with a ratio of 1:1.8. There are 11 manuscripts of Qur'an from group A and 34 manuscripts from group B with a ratio of 1: 3.1 which belong to the 16th century. The ratio between manuscripts of group A and B belonging to 17th century is 1:2.9. The ratio is 1:1.9 between the Qur'anic manuscripts of group A and B from the 18th century and similarly the ratio is 1:47 between the group A and B manuscripts of Qur'an belonging to the 19th century. There is only one available manuscript of Qur'an which belongs to group A while there are 12 manuscripts which belongs to group B from the 20th century with a ratio of 1:12. There are 11 manuscripts in which the date of production cannot be assessed. These include 3 from group a and 8 from group B. The significant difference is noticed in the chronological order of these manuscripts of Qur'an which starts from the 16th to 19th century. This difference may be attributed to the following possible factors such as increased production of QMs and better survival of QMs in 16th to 19th century. The other finding of the present study is that the collected QMs belonging to group A are less in number as compared to group B. The group A has 91 total QMs (22.97%) and B group has 305 (77.02%) manuscripts of Qur'an. The manuscripts belonging to group A have increased amount of text because of translation and require more volume of paper which likely possibilities may be along with other factors for the less production or availability of these manuscripts. The results have been shown in table 5 and 6 and depicted in graph 4 and 5.

Table. 5 QMs of group A

1300-99	1400-99	1500-99	1600-99	1700-99	1800-99	1900-99	Nil
4	5	11	23	42	2	1	3

Table. 5 shows the details of group A QMs and their chronological order.

The result shows the attribute of collected data that is observed under the framework of physical analysis and organized in chronological order. It does not derive the result or support a hypothesis that more Qur'an are produced in the 18th century rather than other centuries. It may be possible that the most surviving of produced specimens are from the 18th century.



Graph. 4 Shows the numbers of QMs belong to the different centuries.

The graph 4 shows the production²⁷ rate of the QMs found in the collection of GBL. Available data is distributed from the 14th century till 20th century. The graph indicates the high score of the 18th century than the 17th and 16th century. The QMs access numbers assigned by the GBL is arranged according to the chronological order, given below.

²⁷ In the recent study, the word production of QMS and survival of QMS has been used in the same context.

Year 1300-1399: 1598, 1599, 4007, 4170.

Year 1400-1499: 787, 824, 1597, 1618, 1615.

Year 1500-1599

2069, 623, 773, 825, 4100, 4107, 5176, 6623, 6891, 13671, 3603.

Year 1600-1699

513, 2698, 3119, 2209, 3229, 310, 2064, 2503, 2519, 2530, 2545, 2547, 2951, 3330, 4106, 6224, 6489, 9243, 10575, 11559, 11629, 12627, 13781.

Year 1700-1799

4041, 3442, 10577, 12941, 4852, 8145, 5105, 1632, 1633, 1405, 1529, 1530, 1619,

1949, 2217, 2471, 2872, 3074, 3305, 3557, 3752, 4114, 4599, 4772, 5059, 5185, 5334, 4074,

7378, 7692, 7936, 8531, 10091, 10576, 10661, 12085, 12092, 12690, 13828, 3609, 13656.

Year 1800-1899: 5107, 12241.

Year 1900-1999: 780.

Year not specified (Nil): 11564, 12913, 1325.

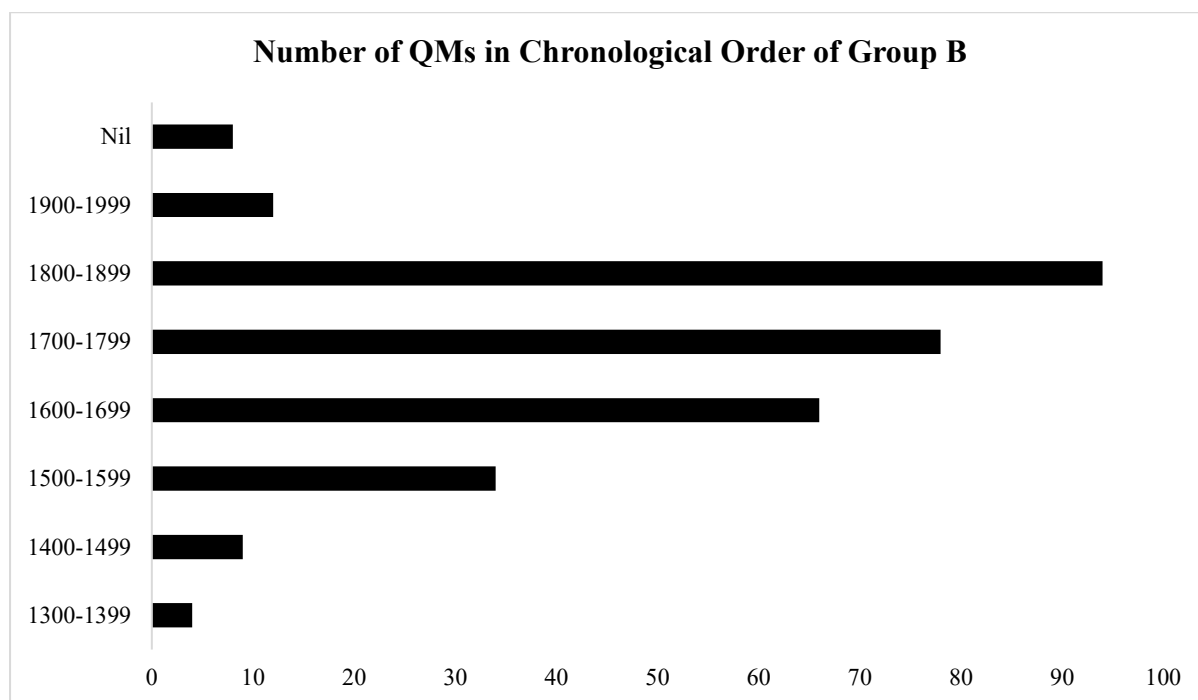
Table. 6 QMs Group B

1300-99	1400-99	1500-99	1600-99	1700-99	1800-99	1900-99	Nil
04	09	34	66	78	94	12	08

Table. 6 it indicates the chronological explanation and classification of the QMs.

Table 2 shows the number of QMs produced over the centuries. Such as the high rate of production is noticed in the 19th century. Initially, there is gradual increase in the number of QMs but later that number declined rapidly.

The growth rate of QMs is high in 16th to 17th century (66-34=32) and 18th to 19th century it is declining as (94-78=16). The declining growth rate of QMs is identified in 19th to 20th century as (12-94=-82). It means the overall production is high in the 19th century but growth rate indicated the 17th century.



Graph. 5 Indicating the more QMs is from the 1800-1899.

In each century QMs are produced in a different way, use of different motifs and overall decoration. It is noticed that category “B” QMs are more decorative and variant in size than the group A. These QMs belong to different centuries but more associated with 1600-1899. These QMs are not as much illuminated as 1300-1599 century QMs. The chronological division of QMs group B is given below.

Year 1300-1399: 781,986, 9559,13790.

Year 1400-1499: 13826, 988, 320, 2245, 3587, 4738, 5331, 13667, 13791.

Year 1500-1599

4166, 324, 1031, 1524, 2434, 2686, 2844, 3073, 3100, 3510, 3646, 3738, 3856, 3849, 4008, 4165, 4845, 4846, 5063, 6067, 6517, 6899, 7191, 7310, 7891, 7937, 1586, 11596, 12071, 12888, 13785, 13786, 13804, 3077.

Year 1600-1699

1791, 13280, 1406, 2390, 4655, 12725, 1176, 1523, 1601, 1612, 1614, 1616, 1627, 1631, 2051, 2070, 2075, 2079, 2275, 2350, 2468, 2583, 3070, 3450, 3684, 3737, 4192, 4195, 4477, 4508, 4509, 4542, 4739, 4923, 4948, 5065, 5108, 5138, 5671, 5872, 6110, 6247, 9565, 7412, 9570, 10071, 10581, 10583, 10584, 10585, 11528, 11728, 11745, 12295, 12626, 12885, 12886, 13312, 13609, 13666, 13782, 13784, 902, 3448, 1754, 14264.

Year 1700-1799

3334, 6659, 13827, 2670, 9517, 5905, 4196, 4224, 1687, 5295, 1646, 8450, 1740, 1755, 1756, 1757, 1784, 1790, 1792, 1912, 1998, 2065, 2219, 2247, 2306, 2548, 2656, 2668, 2722, 3447, 3644, 3691, 3694, 3722, 3924, 4218, 4559, 4654, 4708, 4806, 4713, 4844, 4921, 4922, 4929, 5151, 6004, 6225, 6234, 6464, 6480, 8605, 8607, 6942, 7463, 7826, 7817, 10049, 10925, 11595, 11743, 11744, 12168, 12240, 12242, 12647, 12699, 12812, 13092, 13663, 13665, 13672, 13677, 13703, 13783, 13803, 3444, 13655.

Year 1800-1899

12884, 13662, 4327, 6519, 13696, 2691, 1132, 1852, 760, 827, 5982, 3076, 2248, 2251, 3155, 2068, 7818, 12887, 1826, 2005, 2076, 2091, 2203, 2246, 2349, 2352, 2354, 2376, 2391, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 3449, 3513, 3583, 3692, 3695, 3696, 3697, 3807, 3835, 4661, 4771, 4773, 4829, 4862, 4863, 4928, 4947, 4949, 5002, 5189, 5229, 5248, 5297, 6461, 6520, 6806, 7152, 7566, 7713, 7881, 7888, 8062, 9516, 9574, 9648, 9769, 11598, 11599, 8659,

12182, 12529, 12814, 13359, 13360, 13401, 13402, 13584, 13610, 13664, 13670, 13792, 13800, 13802, 13820, 5663, 1630, 11565, 13608.

Year 1900-1999

5296, 5297, 5308, 5577, 5660, 5732, 5802, 5817, 5966, 4164, 3263, 3888,

Nil (Year not identified)

11528, 13583, 11563, 11643, 12944, 12558, 11597, 13683.

4.2 Elements of Illumination and Style in QMs

The manuscripts of Qur'an from the GBL are evaluated for the elements of illumination and style. These manuscripts are divided into two groups. These manuscripts have a disparity in frequency, colour combination, margin design, *aya* indicator and overall page layout. There are certain similarities such as text ink, *sura* heading and inter linear translation. Indicators were set for the analysis of QMs design and colour combination in the present study. With the help of these set indicators result of both group, A and B are compiled in table 3 and 4.

Most of QMs are decorated with single or double frontispieces, incipits, middle, every 5th, 7th or 10th part and last pages. These illuminated pages division may be a regional style of presentation.

The following indicators are used for group A.

1. Illuminated *Sura* heading, R /Red, B /Blue, G/ Gold, H for Brown background.
2. A for single frontispieces and B with last two illuminated pages. AB for both
3. *Sura* and Marginal indicator shapes, A/ Pear, B/ Sun, C/ Round, D/ Elongated, E/ Foliage.
4. Translation, text Ink colour, A/ Black, B/ Brown, C/ Red.

5. Arabic Text Ink Colour A /Black, B/ Brown, C/ Red, D /Blue, E/ Gold.

6. *Ayat* marks R/ Red, B/ Blue, G/ Gold, L/ Black, N/ Brown.

Table. 7 Group “A”

S. N0	GBL QMs Number	Sura heading	Illuminated Pages	Sura indicator	Translation text Ink	Arabic text ink	<i>Ayat</i> marks
1	1598	Nil	Nil	Nil	C	A	6 dot flower RGB
2	1599	RBG	A	AC	C	AC & AE	6 dot flower LG
3	4007	RB	Nil	D	C	A	8 dot flower RGB
4	4170	RBG	Nil	ABC	C	AC &AE	6 dot flower RGB
5	787	Nil	Nil	A	A	A	6 dot flower RGB
6	824	Nil	Nil	BC	AC	AE	6 dot flower RGB
7	1597	RBG	Nil	AC	AC	AE	6 dot flower RGB
8	1618	RBG	AB	E	AC	A	Round L
9	2069	H	A	BCD	A	A	Round G

		RBG	A	ABC	C	AE	6 dot flower RGB
10	513						
11	623	Nil	Nil	Nil	A C	A	Nil
		RBG	A	CD	AC	A	5 Dot round BG
12	682						
		RBG	AB	ACD	AC	A	4 Dot round BG
13	773						
		RBG	AB	CD	AC	A	Round GL
14	825						
		Nil	Nil	Nil	AC	A	Round GL
15	4100						
		G	A	D	AC	A	5 Dot round BG
16	4107						
17	5176	Nil	A	D	AC	A	Nil
18	6623	Nil	Nil	Nil	AC	AC	Nil
		Nil	A	Nil	AC	A	Round GL
19	6891						
20	13671	Nil	Nil	Nil	C	A	Nil
		BG	AB	Nil	AC	A	6 dot flower RGB
21	3603						
		RBG	AB	ABCD	C	AC	Round R
22	2698						
		RB	A	Nil	AC	A	4 Dot round BG
23	3119						
		RB	A	C	C	A	Round L
24	2209						
		G	A	C	C	A	Round L
25	3229						
		RBG	AB	Nil	A	A	Round G
26	310						

		RB	A	C	C	A	Round
27	2064						GL
		RB	A	Nil	C	A	Round
28	2503						G
29	2519	R	Nil	Nil	C	A	Nil
		R	A	C	AC	A	Round
30	2530						GL
		R	A	C	C	A	4 dot flower
31	2545						BG
32	2547	R	Nil	Nil	C	AC	Nil
		R	A	Nil	AC	A	Round
33	2951						GL
		R	A	Nil	C	A	Round
34	3330						GL
35	4106	R	Nil	Nil	AC	A	Nil
							4 dot
		BG	Nil	Nil	C	A	Round
36	6224						GL
		B	A	Nil	AC	A	Round
37	6489						GL
		R	A	C	C	A	Round
38	9243						GL
		R	A	C	AC	A	Round
39	10575						GL
		R	A	Nil	C	A	Round
40	11559						GL
41	11629	R	Nil	Nil	C	A	Nil
		RG	AB	DE	C	A	Round
42	12627						GL
		RG	A	B	C	A	Round
43	13781						GL
		RBG	AB	DE	AC	A	Round
44	4041						GL
		RG	A	B	C	A	Round
45	3442						GL

		G	Nil	Nil	AC	A	Round
46	10577						GL
47	12941	R	A	Nil	AC	A	Nil
		R	A	B	AC	A	Round
48	4852						GL
49	8145	R	Nil	Nil	AC	A	Nil
50	5105	R	Nil	Nil	C	A	Nil
		RG	A	B	C	A	Round
51	1632						GL
		RG	A	BE	C	A	Round
52	1633						GL
		R	AB	C	C	A	Round
53	1405						GL
		Nil	Nil	Nil	A	A	Round
54	1529						GL
							5 dot
		R	Nil	B	AC	A	round
55	1530						RBG
		G	AB	B	C	A	Round
56	1615						GL
		RG	A	Nil	AC	A	Round
57	1619						GL
58	1949	R	A	Nil	C	A	Nil
		R	A	Nil	AC	A	Round
59	2217						GL
		R	A	B	C	A	Round
60	2471						GL
61	2872	RG	AB	C	C	A	Nil
		R	A	B	C	A	Round
62	3074						GL
		R	AB	B	C	A	Round
63	3305						GL
		RG	AB	C	C	A	Round
64	3557						GL
		R	A	C	C	A	Round
65	3752						GL

		R	AB	BE	C	A	Round
66	4114						GL
		R	Nil	B	C	A	Round
67	4599						GL
		R	A	Nil	C	A	Round
68	4772						GL
69	5059	R	Nil	Nil	AC	A	Nil
70	5185	R	A	Nil	C	A	Nil
		R	A	C	C	A	Round
71	5334						GL
		R	AB	C	C	A	Round
72	6074						GL
73	7358	R	Nil	Nil	C	A	Nil
74	7692	R	Nil	Nil	A	A	Nil
							5 dot
		RBG	AB	E	AC	A	flower
75	7936						&Roun
							d GL
76	8531	R	Nil	Nil	C	A	Nil
		R	A	B	AC	A	Round
77	10091						GL
		R	A	Nil	C	A	Round
78	10576						GL
		R	AB	E	C	A	Round
79	10661						GL
80	12085	R	A	Nil	C	A	Nil
81	12092	R	A	Nil	C	A	Nil
		R	Nil	BC	C	A	Round
82	12690						N
		R	Nil	C	A	A	Round
83	13828						GL
		BG	AB	BE	AC	A	Round
84	780						GL
85	3609	R	Nil	Nil	C	A	Nil
		R	A	Nil	C	A	Round
86	5107						GL

		R	A	Nil	AC	A	Round
87	12241						GL
88	11564	G	AB	DE	C	A	Nil
		R	A	B	AC	A	Round
89	12913						GL
90	13256	R	Nil	Nil	C	A	Nil
		R	A	B	C	A	Round
91	13656						GL

Table. 7 shows the frequency of each decorative element with the help of indicator.

Indicators used for group B are

1. Illuminated *Sura* heading, R/ Red, B/ Blue, G/ Gold, H for Brown background I/ Green.
2. A for Only *Single* frontispiece and B for last two illuminated pages (AB for both).
3. *Sura* and Marginal indicator shapes, A/ Pear, B/ Sun, C/ Ha/Ayn, D/ Round, E/ Foliage, F/ Star.
4. For Golden Clouds A to Yes and B for No.
5. Arabic Text Ink Colour A/ Black, B/ Brown, C/ Red, D/ Blue, E/ Gold.
6. *Ayat* marks R/ Red, B/ Blue, G/ Gold, L/ Black, N/ Brown.

Table 8 Group B

S. N0	GBL QMs number	Illuminated <i>Sura</i> heading	Illuminated Pages	<i>Sura</i> indicator	Golden clouds	Arabic text ink	<i>Ayat</i> marks
		RBG	AB	CD	A	A	Round
1	781						GL
		RBG	A	BCDEF	B	AE	6 dot
							Round
2	986						GB

		RBG	Nil	A	B	AC	6 dot Round GB
3	9559						
4	13790	Nil	Nil	Nil	B	AC	Nil
		Nil	A	Nil	A	A	8 dot Round GB
5	13826						
		BG	A	ACD	A	A	8 dot flower GB
6	988						
7	320	Nil	Nil	Nil	B	A	Nil
		RBG	Nil	ABCD	B	AE	8 dot flower GB
8	2245						
		R	Nil	C	B	AC	4dot Round GR
9	3587						
		R	A	C	A	A	5 dot Round GL
10	4738						
		G	A	C	B	AE	6 dot Round GB
11	5331						
		RG	A	D	B	A	4 dot Round GB
12	13667						
		Nil	Nil	ABC	B	A	6 dot Round GB
13	13791						
		BG	A	CD	A	A	Round GL
14	4166						
		RG	AB	BC	B	A	Round GL
15	324						
		RG	A	D	A	A	Round GL
16	1031						

		R	AB	C	A	A	Round
17	1524						GL
18	2434	Nil	Nil	C	B	AC	Nil
		BG	A	CD	B	A	Round
19	2686						GL
20	2844	Nil	Nil	C	B	A	Nil
		R	Nil	Nil	B	A	6 dot
							Round
21	3073						GB
		R	A	CD	B	A	Round
22	3100						GL
23	3510	R	Nil	C	B	AC	Nil
		RBG	A	BCDF	A	ACD	8dot
							Round
24	3646						GB
		RBG	A	D	B	A	4dot
							Round
25	3738						GL
		R	Nil	C	B	A	4 dot
							Round
26	3756						RL
		R	A	C	B	AC	Round
27	3849						GL
		G	Nil	B	B	AC	6 dot
							flower
28	4008						GB
		G	Nil	CD	B	A	Round
29	4165						GL
		RBG	A	ABCD	B	A	Round
30	4845						GL
31	4846	BG	A	C	B	A	Nil
		R	Nil	C	B	A	Round
32	5063						GL
		RBG	AB	CD	B	A	Round
33	6067						GL

		BG	A	C	B	A	5 dot Round GB
34	6517	R	A	C	B	A	6 dot Round GB
35	6899	RBG	A	C	B	A	4 dot Round GB
36	7191						GB
37	7310	Nil	Nil	C	B	A	Nil
38	7891	R	Nil	Nil	B	A	Nil
		G	A	CD	B	A	Round GL
39	7937	R	A	Nil	B	A	Round GL
40	1586	R	Nil	C	B	A	Round GL
41	11596	RBG	AB	D	B	A	Round GL
42	12071	G	Nil	C	B	A	Round GL
43	12888	R	Nil	C	B	A	4 dot Round GB
44	13785	R	A	C	A	AC	Round GL
45	13786	G	Nil	E	B	A	Round GB
46	13804	BG	A	D	B	A	5 dot Round GB
47	3077						GB
48	1791	R	Nil	C	B	A	Nil
		RG	A	DF	A	A	Round GB
49	13280						GB
50	1406	RG	A	D	B	AC	Nil

		R	A	C	A	A	Round
51	2390						GB
52	4655	R	A	C	B	A	Nil
53	12725	R	Nil	C	B	A	Nil
		RBG	AB	F	A	A	5 dot
							Round
54	1176						GB
		R	AB	D	A	A	Round
55	1523						GB
		R	AB	CD	A	A	Round
56	1601						GB
57	1612	R	Nil	C	B	A	Nil
		RBG	AB	CEF	A	A	Round
58	1614						GL
		RBGI	AB	ACD	B	AC	Round
59	1616						GL
60	1627	Nil	Nil	C	B	A	Nil
61	1631	R	Nil	Nil	B	A	Nil
62	2051	R	Nil	C	B	A	Nil
		R	A	BC	B	A	Round
63	2070						GL
64	2075	R	A	C	B	A	Nil
		R	A	C	B	A	Round
65	2079						GL
		RG	A	C	B	A	Round
66	2275						GL
		R	A	C	B	AC	Round
67	2350						GL
		RG	A	CD	A	A	Round
68	2468						GL
		BG	AB	E	A	A	Round
69	2583						GL
		R	Nil	CD	B	A	Round
70	3070						GL
		R	A	D	A	A	Round
71	3450						GL

72	3684	R	Nil	C	B	AC	Nil
73	3737	R	Nil	C	B	A	Nil
		B	A	C	A	A	Round
74	4192						GL
		G	A	D	B	A	Round
75	4195						GL
		RBG	AB	CE	A	A	5 dot
							Round
76	4488						GL
		RG	A	BC	A	A	Round
77	4508						GB
		G	A	Nil	A	A	Round
78	4509						GL
		G	AB	C	B	A	Round
79	4542						GL
		R	A	C	A	A	4 dot
							Round
80	4739						GB
		R	A	CD	A	A	Round
81	4923						GL
		BG	A	CD	A	A	Round
82	4948						GL
		R	A	CD	B	A	Round
83	5065						GL
		R	A	C	B	AC	5 dot
							Round
84	5108						GL
		R	A	C	B	A	Round
85	5138						GL
86	5671	R	Nil	C	B	A	Nil
		G	AB	DE	A	A	Round
87	5872						GL
		RG	AB	D	A	A	Round
88	6110						GL
89	6247	Nil	Nil	C	B	A	Nil

		R	A	C	B	A	Round
90	9565						GL
91	7412	R	Nil	Nil	B	A	Nil
		R	A	D	A	A	Round
92	9570						GL
		G	AB	DE	A	A	Round
93	10071						GL
94	10581	R	Nil	C	B	A	Nil
		Nil	Nil	C	A	A	Round
95	10583						GL
96	10584	Nil	Nil	C	B	A	Nil
97	10585	R	Nil	C	B	A	Nil
98	11528	R	Nil	Nil	B	A	Nil
		R	AB	CD	A	A	Round
99	11728						GL
		R	A	C	A	A	Round
100	11745						GL
101	12295	R	Nil	C	B	A	Nil
		R	AB	B	B	A	Round
102	12626						GL
103	12884	R	A	C	A	A	Nil
104	12885	R	A	C	A	A	Nil
		R	Nil	E	B	A	Round
105	12886						GL
		R	A	CDE	A	A	Round
106	13312						GL
107	13609	R	A	C	A	A	Nil
		Nil	Nil	C	B	A	Round
108	13666						GL
		R	A	CD	A	A	5 dot Round
109	13782						GL
		R	A	CD	A	A	Round
110	13784						GL
		RG	A	CDE	A	A	Round
111	902						GL

		R	A	C	B	AC	5 dot Round GL
112	3448						GL
113	1754	R	Nil	Nil	B	A	Nil
		G	Nil	CD	B	A	Round
114	3334						GL
		R	A	C	B	A	Round
115	6659						GL
		R	A	C	A	A	Round
116	13827						GL
		BG	Nil	CD	B	A	Round
117	2670						GL
		R	Nil	CD	B	A	Round
118	9517						GL
119	5905	R	Nil	C	B	A	Nil
		R	A	C	A	A	Round
120	4196						GL
		R	Nil	C	B	A	Round
121	4224						GL
122	1687	R	Nil	C	B	A	Nil
		R	A	BCD	B	A	Round
123	5295						GL
		RBG	AB	CDE	A	A	Round
124	1646						GL
		R	A	C	A	A	Round
125	8450						GL
126	1740	R	Nil	C	B	A	Nil
		R	A	C	B	A	Round
127	1755						GL
128	1756	R	Nil	Nil	B	A	Nil
129	1757	R	Nil	C	B	A	Nil
		R	B	C	B	A	5 dot Round
130	1784						GR
131	1790	R	Nil	C	B	A	Nil
132	1792	R	Nil	C	B	A	Nil

		R	A	C	A	A	Round
133	1912						GL
134	1998	RBGI	AB	C	A	A	Nil
135	2065	Nil	Nil	C	B	A	Nil
		R	B	C	B	A	5dot
							Round
136	2219						GB
		R	Nil	C	B	A	Round
137	2247						GB
138	2306	R	Nil	Nil	B	AC	Nil
139	2548	R	Nil	C	B	A	Nil
		RG	AB	BDE	A	A	5 dot
							Round
140	2656						GL
		R	A	CF	A	A	5 dot
							Round
141	2668						GL
		R	Nil	CF	B	A	Round
142	2722						GL
143	3447	R	A	C	B	A	Nil
		R	A	BC	B	A	Round
144	3644						GL
145	3691	R	A	C	A	A	Nil
		R	Nil	BC	B	A	Round
146	3694						GL
147	3722	R	A	C	B	A	Nil
		RBGI	B	ABCDE	B	A	Round
148	3924						GB
		G	A	BC	A	A	Round
149	4218						GL
		R	A	C	B	A	Round
150	4559						GL
		R	A	C	B	A	Round
151	4654						GL
		R	Nil	BC	B	A	Round
152	4708						GL

		G	AB	B	B	A	Round
153	4806						GL
154	4713	R	Nil	C	B	A	Nil
		GB	AB	BEF	A	A	Round
155	4844						GL
156	4921	R	A	C	B	A	Nil
157	4922	R	A	C	B	A	Nil
		RGB	AB	C	B	A	Round
158	4929						GL
		G	Nil	CDE	B	A	Round
159	5151						GL
		GB	AB	D	B	A	Round
160	5296						GL
161	5297	R	Nil	C	B	A	Nil
		R	Nil	C	B	A	Round
162	5308						GL
		R	Nil	C	B	A	Round
163	5577						GL
164	5660	R	Nil	C	B	A	Nil
165	5732	R	Nil	Nil	B	A	Nil
166	5802	R	Nil	Nil	B	A	Nil
167	5817	R	Nil	Nil	B	A	Nil
		R	Nil	Nil	B	A	Round
168	5966						R
169	6004	R	Nil	Nil	B	AC	Nil
		R	AB	ABCD	A	A	Round
170	6225						GL
171	6234	R	Nil	Nil	B	A	Nil
172	6464	R	Nil	C	B	A	Nil
		R	A	CDE	A	A	Round
173	6480						GL
174	6805	R	Nil	Nil	B	A	Nil
175	6807	R	Nil	Nil	B	A	Nil
176	6942	R	Nil	C	B	A	Nil
		R	A	C	B	A	Round
177	7463						GL

178	7826	R	Nil	Nil	B	A	Nil
179	7817	Nil	Nil	Nil	B	A	Nil
		G	AB	CD	A	A	Round
180	10069						GL
		BG	Nil	E	B	A	4 dot
							Round
181	10925						GL
		G	AB	D	A	A	Round
182	11595						GL
183	11743	R	A	C	B	A	Nil
		R	A	C	A	A	Round
184	11744						GL
185	12168	R	A	C	B	A	Nil
186	12240	R	AB	C	A	A	Nil
		R	AB	C	B	A	Round
187	12242						GL
		GR	A	BCD	A	A	Round
188	12647						GL
189	12699	GR	A	C	B	A	Nil
		GR	A	BC	A	A	Round
190	12812						GL
191	13092	R	A	C	B	A	Nil
192	13663	R	AB	C	B	A	Nil
193	13665	R	AB	C	B	A	Nil
		R	Nil	C	B	A	Round
194	13672						R
195	13677	R	Nil	C	B	A	Nil
196	13703	R	Nil	Nil	B	A	Nil
		R	A	BC	B	A	Round
197	13783						GL
		R	Nil	C	B	A	4 dot
							Round
198	13803						GL
199	3444	R	A	C	B	A	Nil
200	13662	R	A	C	B	A	Nil

							Round GL only first 2 and last pages
		R	A	C	B	A	
201	13608						Round GL
		R	A	C	B	A	
202	4327						Round GL
203	6519	GB	AB	C	B	A	Nil
204	13696	R	A	C	B	A	Nil
205	2691	R	A	Nil	B	A	Nil
		R	A	C	A	A	Round GL
206	1132						Round GL
207	1852	R	Nil	C	B	A	Nil 4 red dot
		RBG	AB	BCE	A	A	Round GB
208	760						Round GL
		RBG	AB	BCE	A	A	Round GL
209	827						Blue red flower & Round GL
		RBG	AB	E	A	A	Round GL
210	5982						Round GL
		R	AB	BCD	A	A	Round GL
211	3076						Round GL
212	2248	R	A	C	B	A	Nil
213	2251	R	A	C	B	A	Nil
		G	A	C	A	A	Round GL
214	3155						Round GL
		RB	A	C	B	A	Round R
215	2068						Round R
216	7818	Nil	Nil	Nil	B	A	Nil
217	12887	R	Nil	C	B	A	Nil

218	1826	R	A	C	B	A	Nil
		R	A	C	B	A	Round
219	2005						R
		R	A	BC	B	A	Round
220	2076						GL
221	2091	R	Nil	C	B	A	Nil
		R	Nil	C	B	A	Round
222	2203						GL
223	2246	R	Nil	C	B	A	Nil
224	2349	R	A	C	A	A	Nil
225	2352	R	Nil	C	B	A	Nil
		R	Nil	C	B	A	Round
226	2354						GL
227	2376	R	Nil	C	B	A	Nil
		G	B	DE	B	A	Round
228	2391						GL
229	2535	R	Nil	Nil	B	A	Nil
230	2536	R	Nil	C	B	A	Nil
231	2537	R	A	Nil	B	A	Nil
232	2538	R	Nil	C	B	A	Nil
233	2539	R	Nil	C	B	A	Nil
234	2540	R	Nil	C	B	A	Nil
235	2541	R	Nil	C	B	A	Nil
236	3449	R	A	C	B	A	Nil
237	3513	R	Nil	C	B	A	Nil
238	3583	R	A	C	B	A	Nil
239	3692	R	A	C	A	A	Nil
240	3695	R	Nil	C	B	A	Nil
		R	A	C	B	A	Round
241	3696						R
		R	A	C	B	AC	Round
242	3697						GL
		R	A	C	B	A	Round
243	3807						GL
		R	A	BCD	B	A	Round
244	3835						GL

		BG	AB	CE	A	A	Round
245	4164						GL
		R	A	C	B	A	Round
246	4661						R
247	4771	R	Nil	C	B	A	Nil
248	4773	R	A	C	B	A	Nil
249	4829	R	A	C	B	A	Nil
250	4862	R	Nil	C	B	A	Nil
251	4863	R	Nil	C	B	A	Nil
252	4928	R	Nil	C	B	A	Nil
		R	A	C	B	A	Round
253	4947						R
		R	Nil	C	B	A	Round
254	4949						R
255	5002	R	AB	C	B	A	Nil
256	5189	R	A	C	B	A	Nil
257	5229	R	Nil	C	B	A	Nil
		RG	B	CE	B	A	Round
258	5248						GL
259	5297	R	Nil	Nil	B	A	Nil
260	6461	R	Nil	Nil	B	A	Nil
		GB	AB	CE	B	A	Round
261	6520						GL
262	6806	R	Nil	Nil	B	A	Nil
		R	AB	C	B	A	Round
263	7152						R
264	7566	Nil	Nil	Nil	B	A	Nil
		R	Nil	Nil	B	A	Round
265	7713						R
		R	A	C	B	A	Round
266	7881						R
267	7888	R	Nil	Nil	B	A	Nil
		R	Nil	C	B	A	Round
268	8062						GL
269	9516	R	A	C	A	A	Nil

		R	A	C	B	A	Round
270	9574						R
		RG	A	CE	B	A	Round
271	9648						GL
		RG	Nil	Nil	B	A	Round
272	9769						GL
273	11598	R	Nil	C	B	A	Nil
274	11599	R	Nil	C	B	A	Nil
275	8659	R	Nil	Nil	B	A	Nil
276	12182	R	Nil	C	B	A	Nil
		RG	AB	BE	A	A	Round
277	12529						GL
278	12814	R	Nil	Nil	B	A	Nil
279	13359	R	A	C	B	A	Nil
280	13360	R	Nil	Nil	B	A	Nil
		R	A	C	B	A	Round
281	13401						R
282	13402	R	AB	C	B	A	Nil
		R	Nil	C	B	A	Round
283	13584						R
284	13610	R	Nil	Nil	B	A	Nil
285	13664	R	Nil	Nil	B	A	Nil
286	13670	R	Nil	C	B	A	Nil
287	13792	R	Nil	C	B	A	Nil
		R	A	C	B	A	Round
288	13800						GL
289	13802	R	AB	C	B	A	Nil
290	13820	R	A	C	A	A	Nil
291	5663	R	Nil	C	B	A	Nil
292	1630	R	Nil	Nil	B	A	Nil
293	3263	R	Nil	C	B	A	Nil
294	3888	R	Nil	Nil	B	A	Nil
295	2073	R	Nil	Nil	B	A	Nil
296	13583	R	A	C	B	A	Nil
297	11563	R	AB	C	B	A	Nil

		G	A	BC	B	A	4 dot
							Round
298	11643						GL
		R	Nil	C	B	A	5 dot
							Round
299	12944						GR
		R	A	C	B	A	Round
300	12558						GL
		R	A	C	B	A	Round
301	11597						GL
		B	A	CF	B	A	Round
302	11565						GL
		R	A	BC	A	A	Round
303	13655						GL
304	13683	R	Nil	C	B	A	Nil
		R	A	BCF	A	A	Round
305	14264						GL

Table. 8 indicates the results of overall colour attributes in the group B.

Table. 7.1 Results of group A Sura heading

R	B	G	Nil	H	RBG	RB	BG	RG
47	0	05	10	1	12	05	05	8

Table. 7.1 shows the colour palette used for replication and beautification of the Qur'an.

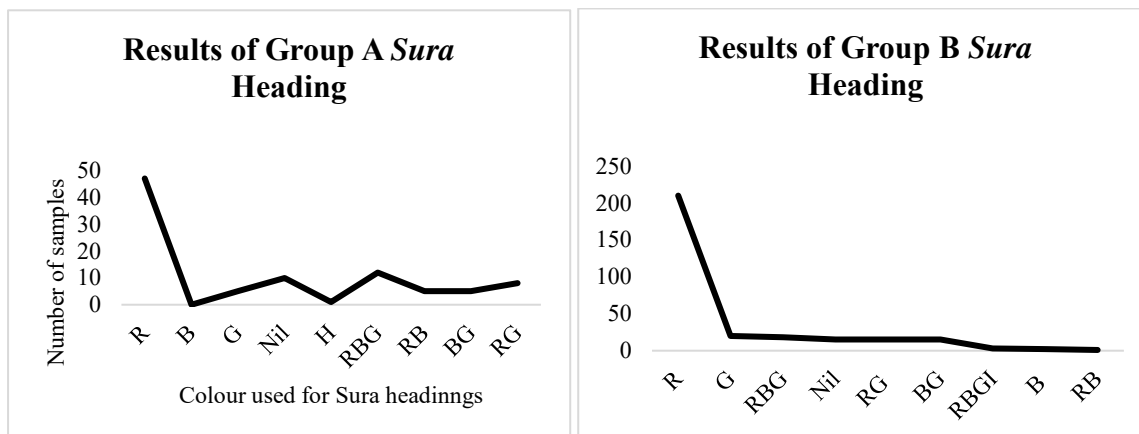
Table 8.1 Results of group B Sura heading

R	G	RBG	Nil	RG	BG	RBGI	B	RB
210	20	18	15	15	15	3	2	1

Table. 8.1 shows the detail of the QMs of group B.

Group B has a variety of QMs due to its large number of data. The first result is same as group A because the excessive use of red colour in *sura* heading. Only golden colour is also used along with multi-colour RBG (red, blue and gold).

The result shows (graph 6) that the colour palette of QMs *sura* heading is full of red, golden and blue. These colours are used in either separately or in a form of combination.



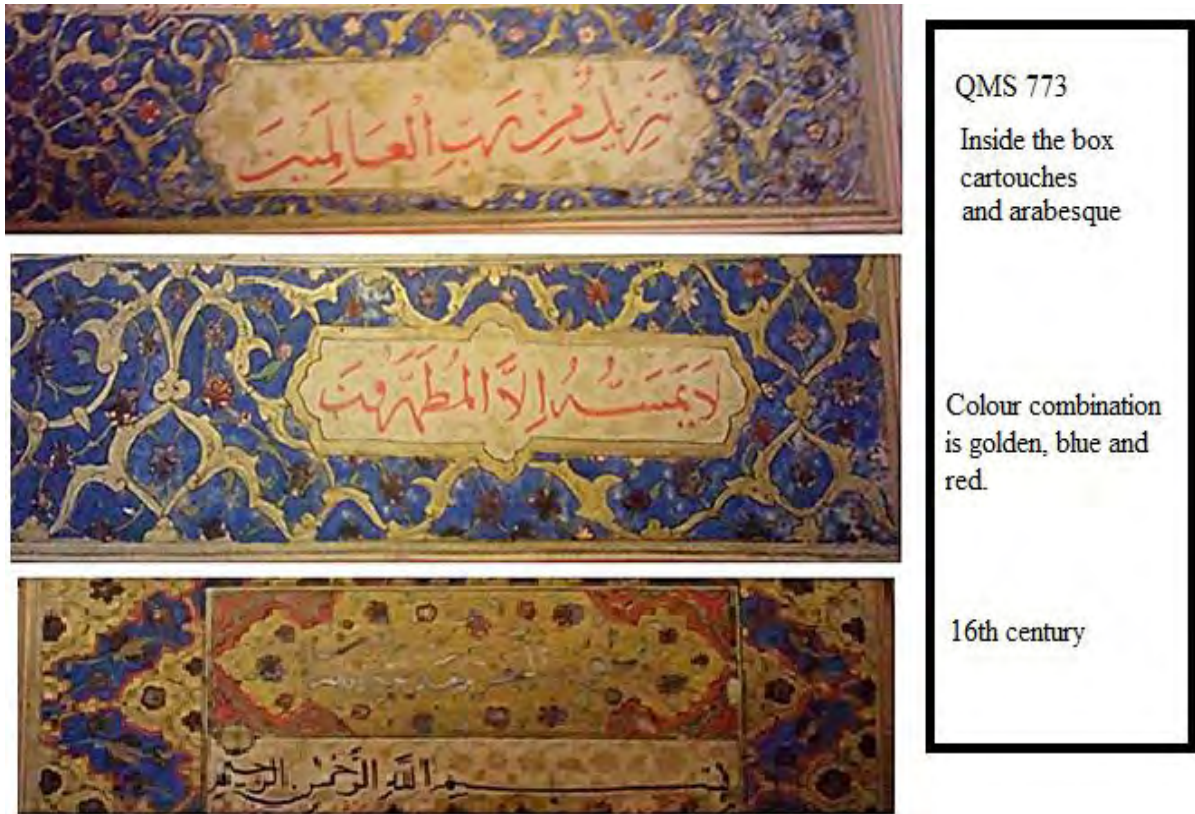
Graph.6 In group A and B vermilion (red) colour is much used for the *sura* heading, designing and Text. Gold leaf and powder were mixed in the ink to attain the golden ink for writing or decoration. Blue colour is mostly extracted from the lapis lazuli. It shows high stability to light. Both colours are very expensive and difficult to prepare. The combination of blue and golden is very old. The usage of blue tiles and the art of chrysography are very common in the history of Islamic art. Red and maroon colour are also used for the text and main heading. The technique of rubrication is very common in the history of manuscript production. It is used for making the text prominent. Red colour shows the high attribute in QMs. Indian artist such as to use this colour in manuscript in many ways. According to Anabel, for the beautification or to give prestige and royal look vermilion is used (Anabel 2005). Goethe associated red with beauty. Red colour belongs to the family of warm colours and colour theorist considered its primary colour. It is used for the painting (cave art) from the ancient time, symbolized as blood, danger and courage. In Asian countries, it is considered a colour for good luck and fortunate (Aziz 2004).

QMs *sura* heading (Fig. 6) provides the sufficient information to the reader about the *sura* name, number and its revealed place. Initially, palmette was developed in Umayyad's regime for *sura* heading. According to Syed Tajamal Hussain, these palmettes are the symbols that indicate the Qur'an is heavenly originated (Hussain 2010).



Figure. 6 A variety of *Sura* heading of group A and B, QMs from 14th century till 16th century.

Most of the *sura* heading are enclosed with geometric shapes rather than the foliage. Rectangular (Fig. 6, 7 and 8) cartouches and square shapes are filled with golden, vermillion or blue colour. Different calligraphic style such as *Kufic*, *Thuluth* and *Muhaqqaq* is adopted just to make the heading prominent and beautiful. Arabic text (an introduction of *Sura*) is either presented in multicolour or mono coloured band. Chapter (para) also bears a coloured band or clouds (Fig. 7). This band adds the beauty and enhance the value of a manuscript. It may be either an artist or consumer choice.

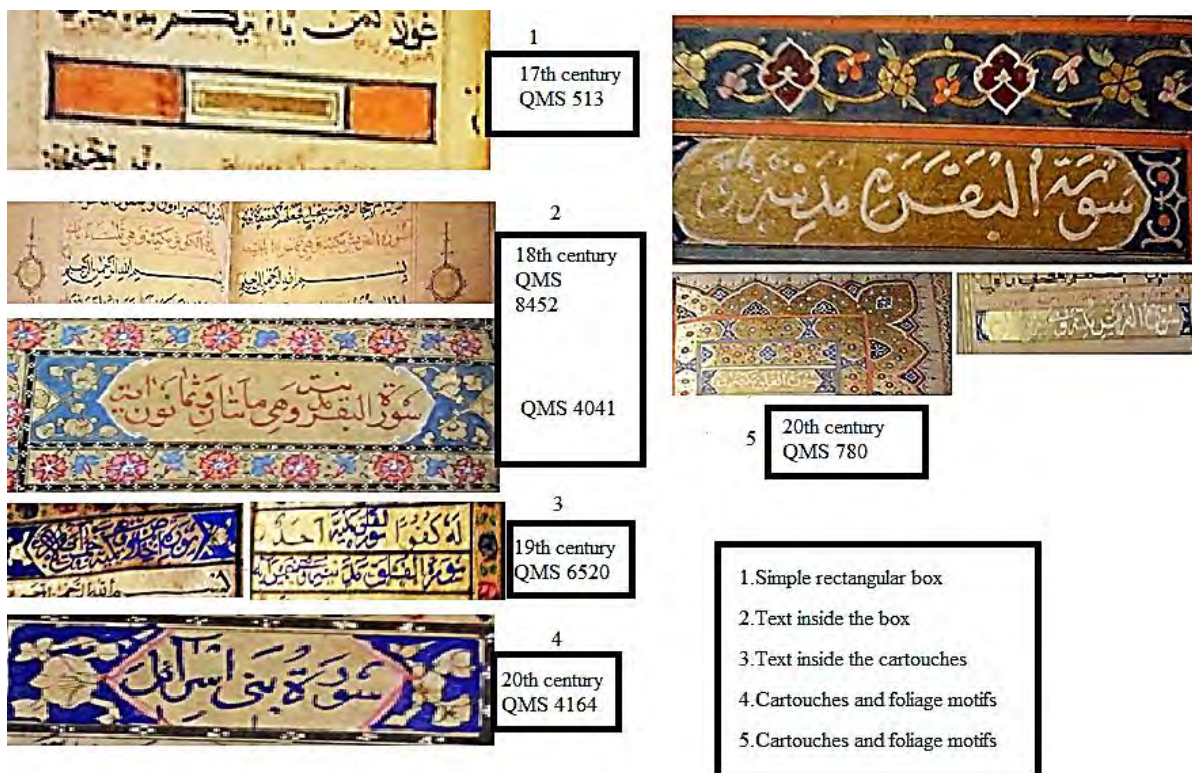


QMS 773
Inside the box
cartouches
and arabesque

Colour combination
is golden, blue and
red.

16th century

Figure. 7 Sura heading of 16th century QMs.



1
17th century
QMS 513

2
18th century
QMS 8452

QMS 4041

3
19th century
QMS 6520

4
20th century
QMS 4164

5
20th century
QMS 780

- 1. Simple rectangular box
- 2. Text inside the box
- 3. Text inside the cartouches
- 4. Cartouches and foliage motifs
- 5. Cartouches and foliage motifs

Figure. 8 Sura heading of 17th till 20th century QMs.

The result shows the highest attribute of vermilion (red) and the multicoloured band of RBG (red, blue and gold) are found in the *sura* heading.

Table. 7.2AB Results Illuminated Pages of Group “A” and “B”

A	B	AB	Nil
43	0	19	29

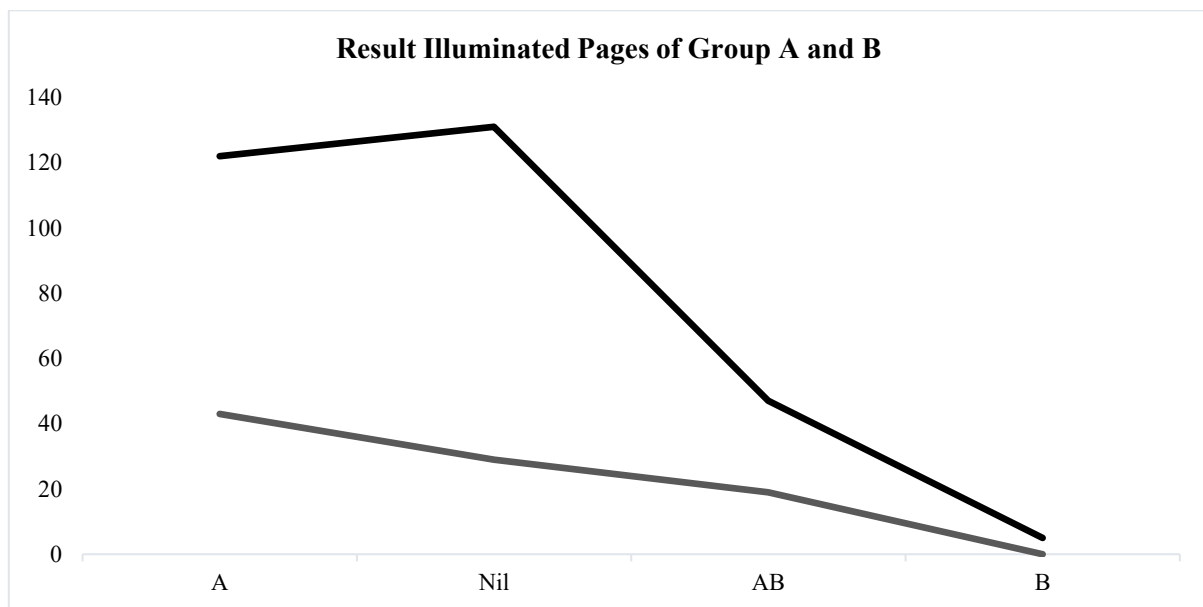
Group B

A	B	AB	Nil
122	5	47	131

Table. 7.2 shows the result of both A and B illuminated pages.

Result group A shows that 43 QMs have *single* frontispiece (starting with *sura Fatiha*), 19 has double frontispieces along with last two and 29 QMs have no starting illuminated pages or *missing* front pages.

Whereas group B shows many QMs that has *single* frontispiece as well as *missing* their frontispiece.



Graph. 7 Blue line shows the group B and orange group A

It is very common practice done by the Muslim artists that they preferred to illuminate the frontispiece of the QMs. The text box formation of these pages is same as it is enclosed in a

rectangular box, that is fixed within the decorated borders and ruled frame. Decorated borders are filled with different motifs and textures with the help of prominent colours that balanced the text box (Fig. 10-11).

These eye-catching motifs have a soothing effect for the readers as well as some symbolic meanings for the observers. Many architectural forms are also being observed in these specimens such as the dome, pillar and arch (Fig. 11, 18th century). These forms increase the beauty of the QMs.

The colour palette of QMs is not very broad. Only golden, blue, vermilion, black, yellow and green is used (Fig. 10-11). Mostly text panel has two adjacent two cartouches (at the top and bottom) for the main heading of *sura*, its revealed place (Makkah/ Medina) and *waqf*.



Figure. 9 Attributes of QMs 16th to 20th century

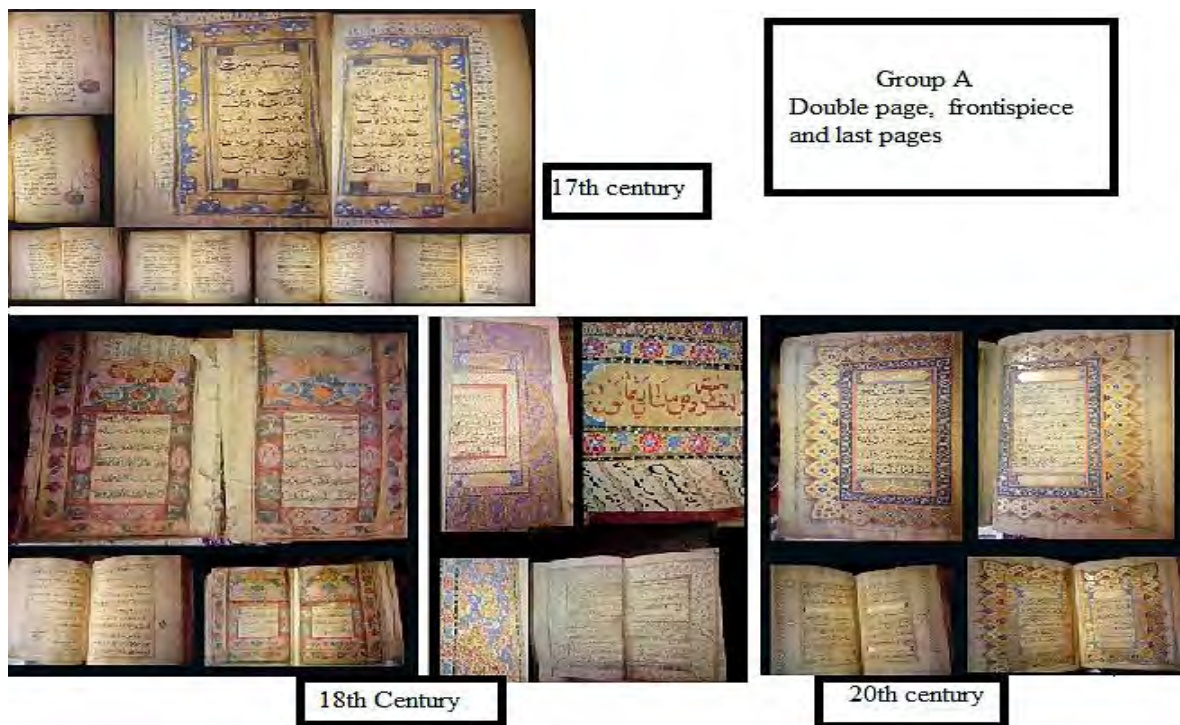


Figure. 10 QMs frontispieces design from 17th to 20th century Group A.

16th -20th century manuscripts of Qur'an have prominent golden and blue colour with symmetrical border filled with interlaced motifs. Golden cartouches carry the *sura* name, sometimes written in black ink instead of red and golden (Fig. 9-10).

Interlinear translation is written in red ink. The explanation is formed in oblique style done in the marginal half decorated panel. The bejeweled panel of crown pattern created the 3D effect. The predominant blue and golden colour along with the pearl white and red enhance the beauty of the page (Fig. 10, 18th century QMs). Sometimes tiny clouds are designed under the translation (red text in nas'taliq). It is observed that many QMs has the simple *sura* introduction written in red ink without any ornamentation.

4.3 Indicators (*Sura* and Marginal) Group "A" and "B"

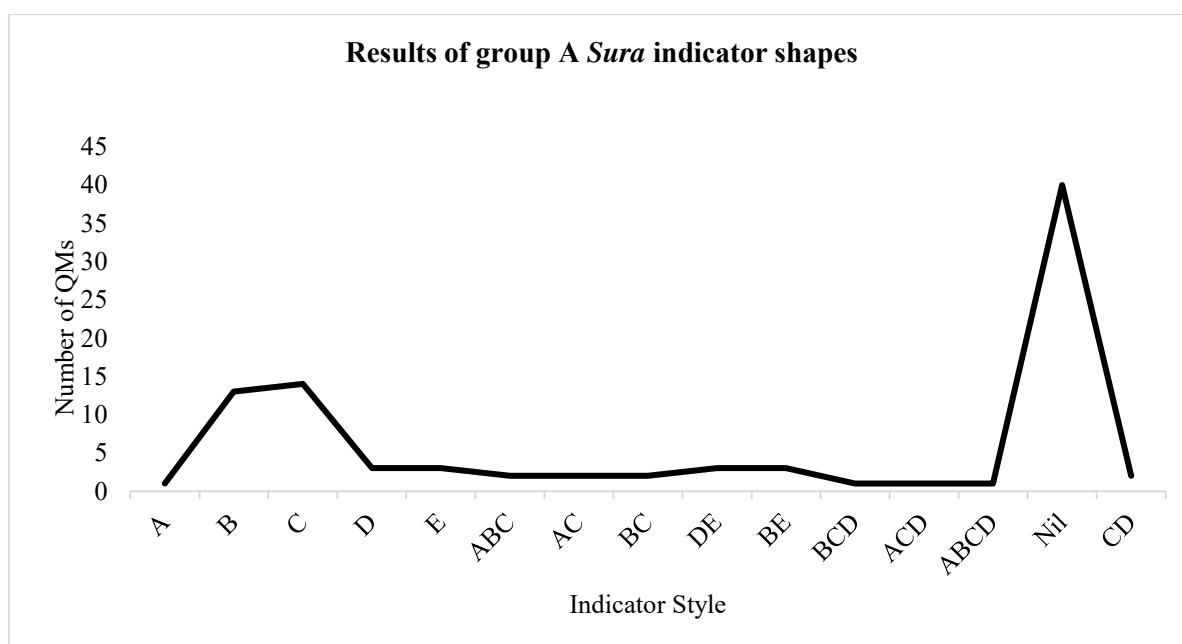
The "*Urdu Daerah Ma'arif Islamia* vol 6: 2005" is mentioned that the "first ever illuminated sign is three dot which was used as a full stop for *aya*". Then the next activity is to give a different look to each *sura*, blue, red and golden band introduced for that purpose. Gradually

these band expands with different design and flowers²⁸. Background paper/ parchment colour is used as foreground with the help of golden (Fig. 4 and 10), blue or green colour in the Abbasid period. An innovative palette of colours and layout of design is formed at the decline of the Abbasid period. Shamsa symbol is very common for the manuscript of Qur'an as a form of medallion, *sajdah* and *sura* indicator.

Table. 7.3 Results of group A *Sura* and Marginal indicator shapes

A	B	C	D	E	ABC	AC	BC	DE	BE	BCD	ACD	ABCD	Nil	CD
1	13	14	3	3	2	2	2	3	3	1	1	1	40	2

Table. 7.3 Shows the results of group A *sura* and marginal indicators shapes.



Graph. 8 Variety of *sura* indicators are present here.

Multiple indicators are also found in the QMs. Pear, sun, simple round, symmetrical and nonsymmetrical round, oval and foliage are the main examples of these indicators (Fig. 11). These indicators are designed in the margins of the text. The main purpose of these marginal

²⁸ Formation of flowers in *sura* heading starts from 2nd century Hijri to 3rd century Hijri.

indicators is to aware the reader about the recitation sign, *aya* number, *sura* and parts of the Qur'an. Results of group A QMs indicates that the most commonly used motifs are *Shamsa*/sun and rounded pendant (in 14th to 20th).



Sura and Marginal Indicator (Group A and B)



Figure. 11 *sura* and Marginal Indicator Group A and B

Table. 8.2 Results of group B *Sura* and Marginal Indicator shapes

A	B	C	D	E	F	DF	BC	DE	CD	CE	ABC	ACD	BCE	BCD
1	3	171	13	5	1	1	12	3	20	5	1	2	2	4
BCDF	CDE	BCDEF	ABCD	Nil	BEF	CF	BE	ABCDE	CEF	BCF				
1	5	1	3	43	1	3	1	1	1	1				

Table. 8.2 Shows *Sura* and Marginal indicator shapes of group B (A/ Pear, B/ Sun, C/ *Hal Ayn*, D/ Round, E/ Foliage, F/ Star).

4.4 Group "A" Translation, text Ink colour

Translation and explanation are done in a very stylish way. Colour contrast is maintained for that purpose.

QMs has translation alone (Fig.11) and with explanation as well. Translation is designed beneath the Arabic text, either word by word or sentence-wise, but the explanation is placed only in the marginal panels.

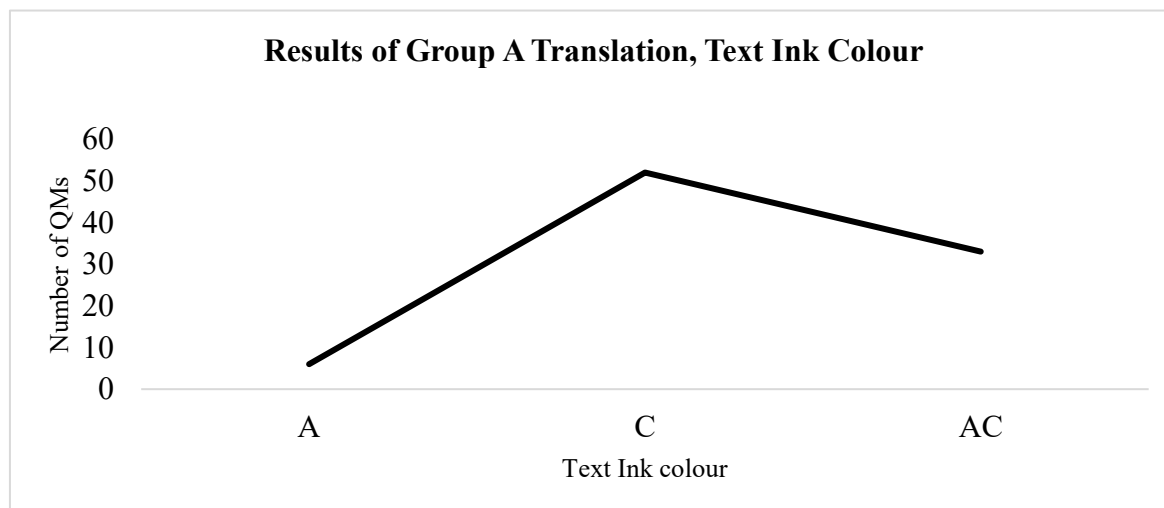
Table. 7.4 Results of group A Translation, text Ink colour

A	C	AC
6	52	33

Table 7.4 indicates the black and coloured ink used for the QMs.

Red and black colour is used for explanation in an oblique style. Black ink is used in only 6 QMs out of 91 (only 6.59%), however, red ink is much more frequently used.

The usage of red ink is seen in 52 (57.14%) manuscripts. In 33 (36.26%) manuscripts both red and black ink are used. The results are show in table 7.4 and depicted in graph 9.



Graph. 9 showed the attribute of ink colours and most common colour used for that (A group).

4.5 Arabic text Ink, Group “A” and “B”

The evaluation of QMs indicates that whole Arabic text is written with black ink. Here “A” used as an indicator of black ink “AC” as red with black “AE” black with golden ink. Some

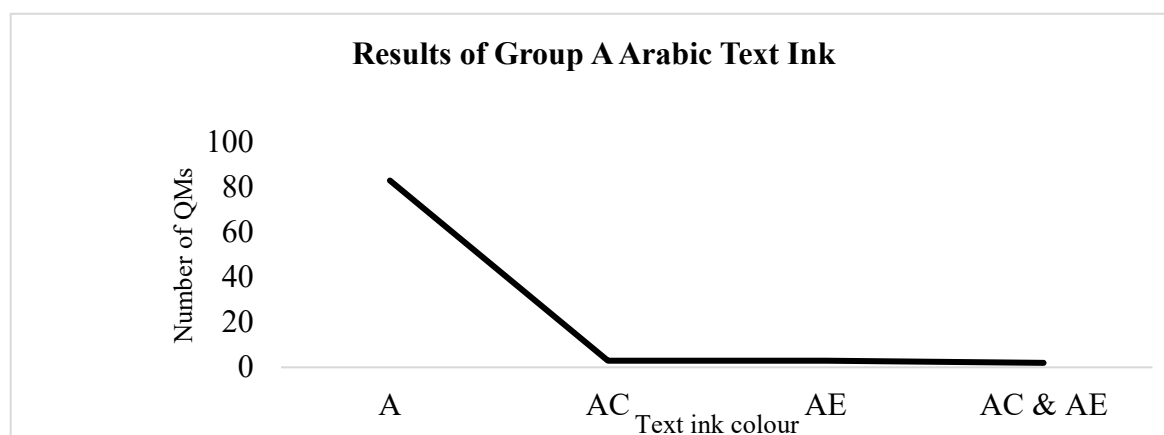
QMs have AC and AE just to highlight the special words. Out of 91 QMs 83 A, 3 AC (QMs 6623, 2698, 2547), 3 QMs of AE (QMs 824, 1597, 513) and 2 AC with AE (QMs 1599, 4170). “A” belongs to all possible centuries (from 11-20th century) however AC (QMs 6623 dated 1591 CE, QMs 2698 dated 1658 CE and QMs 2547 dated 1688CE). It denotes that the late 16th century to late 17th century has a trend to produce such as these QMs in many regions of Pakistan. These QMs are distinguishable due to their appearance.

The style of layout of QMs 6623 with some modification is similar to the Ruzbihan’s Qur’an²⁹ produced in (16th century) Shiraz (southwestern Iran) and Mughal period³⁰ Qur’an (Blare 2006).

Table. 7.5AB The Results of group A and B Arabic text Ink

Group A			
A	AC	AE	AC and AE
83	3	3	2
Group B			
A	AC	AE	ACD
284	17	3	1

Table. 7.5AB indicates the ink used for the Arabic text in QMs.



²⁹ Ruzbihan was a famous 16th century, calligrapher and illuminator belong to Shiraz.

³⁰ 16th century Qur’an produced at Lahore probably for King Akbar.

Graph. 10 Black ink is preferred for the text because its intensity makes it prominent and more visible than other colour.

Group B also shows the result in the favour of black ink. Initially, the black ink is produced from mineral and botanical sources (coal soot/ black moist powder from lamp, iron gall and Chinese/Indian ink. Arabic glue is a very important ingredient in the recipe of the ink. Glue bind the ink and helped it to stay on the surface of paper, wood and leather for a very long time. Iron gall³¹ ink turns brown with the passage of time and causes damage to the paper. Indian ink³² recipe is known by the Neolithic people of China (Woods 2000). Indian ink is paper friendly but in suitable condition. It cannot survive in humid condition. Manuscript written with Indian ink is recommended to be stored in a dry environment (Barrow 1972). In India, two types of ink are used, one lasting and other washable. First one is preferred for manuscript and another is for daily use documents (Sircar 1996). It is identified that all QMS are written with Indian/Chinese ink which may be due to its characteristic such as shining, durability and paper friendly quality.

4.6 Group A and B Aya Marks

Shamsa is designed for *aya* indicator at the time of third *Khalifa* (Hazarat Uthman bin Aafan) the main purpose of this symbol of sun to indicate the certain number of the verse count. And this symbol also represented the verses as a light of Qur'an (Tajammul 2010).

Pointed star (8, 6, 5 and 4), inspired from nature, conceptual or symbol of divine throne carried by the eight angles etc., and some researcher think it may have been taken from the Roman tile mosaics (Aziz 2004). *Aya* number is shown in it. *Khamsa* (5th) and *ashrah* (10th) *aya* indicators

³¹ Much used in Medieval period manuscripts and prominent in 12th century CE.

³² Made of coal soot/ lamp black, water and Arabic glue.

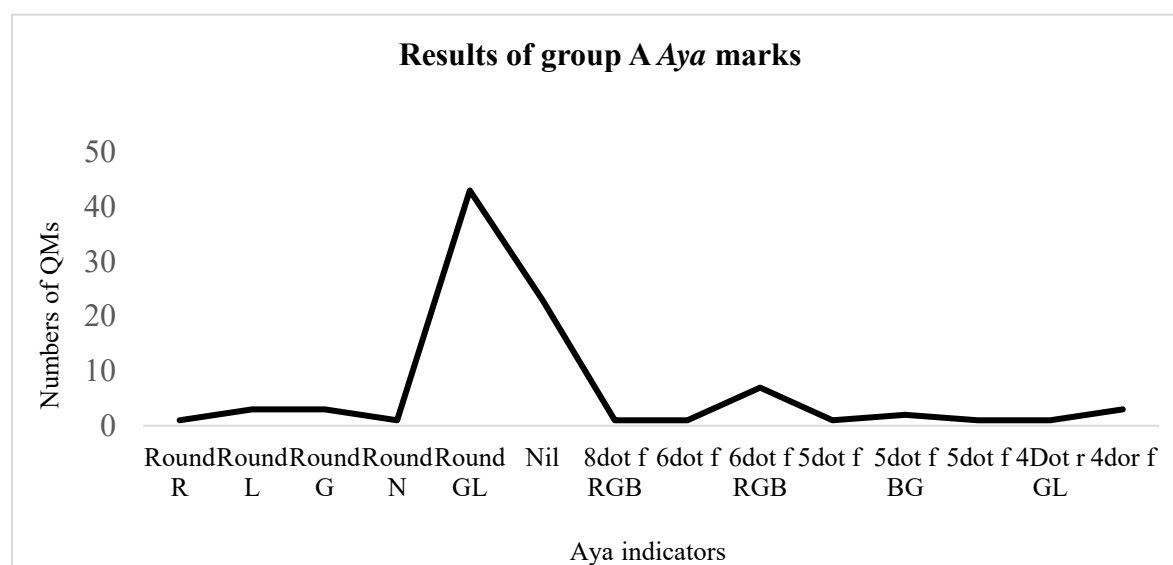
are to be set initially, such as after 5 *aya* a special symbol of *ha* (ه) presented in a square box with red *alif* (ا) or in a flower form. It would be broader or more prominent in the case of tenth *aya*. The simplest form *aya* marks is round shape of gold with black/blue or red outline.

Table. 7.6 Results of group “A” *Aya* marks

Round R	Round L	Round G	Round N	Round GL	Nil	8 dot f RGB
1	3	3	1	43	23	1
5dot f RBG	5dot f BG	5dot f GL	4dot r GL	4dot f BG	6dot f RGB	6 dot f GL
1	2	1	1	3	7	1

Table. 7.6 shows the group A’s style of *Aya* marks.

One reason behind the result is 16th-20th centuries QMs are more in numbers, secondly this style is adopted during the late 15th century. It is regularly used in Mughal period (manuscript produced in Kashmir) manuscripts of Qur’an. In the 15th century, mostly patterns are such as the Timurid period patterns, but less use of foliage/interlaced design of foliage. Addition of clouds (Chinese clouds) and excessive use of blue colour instead of golden are the main features of the late 15th century CE manuscripts of Qur’an.



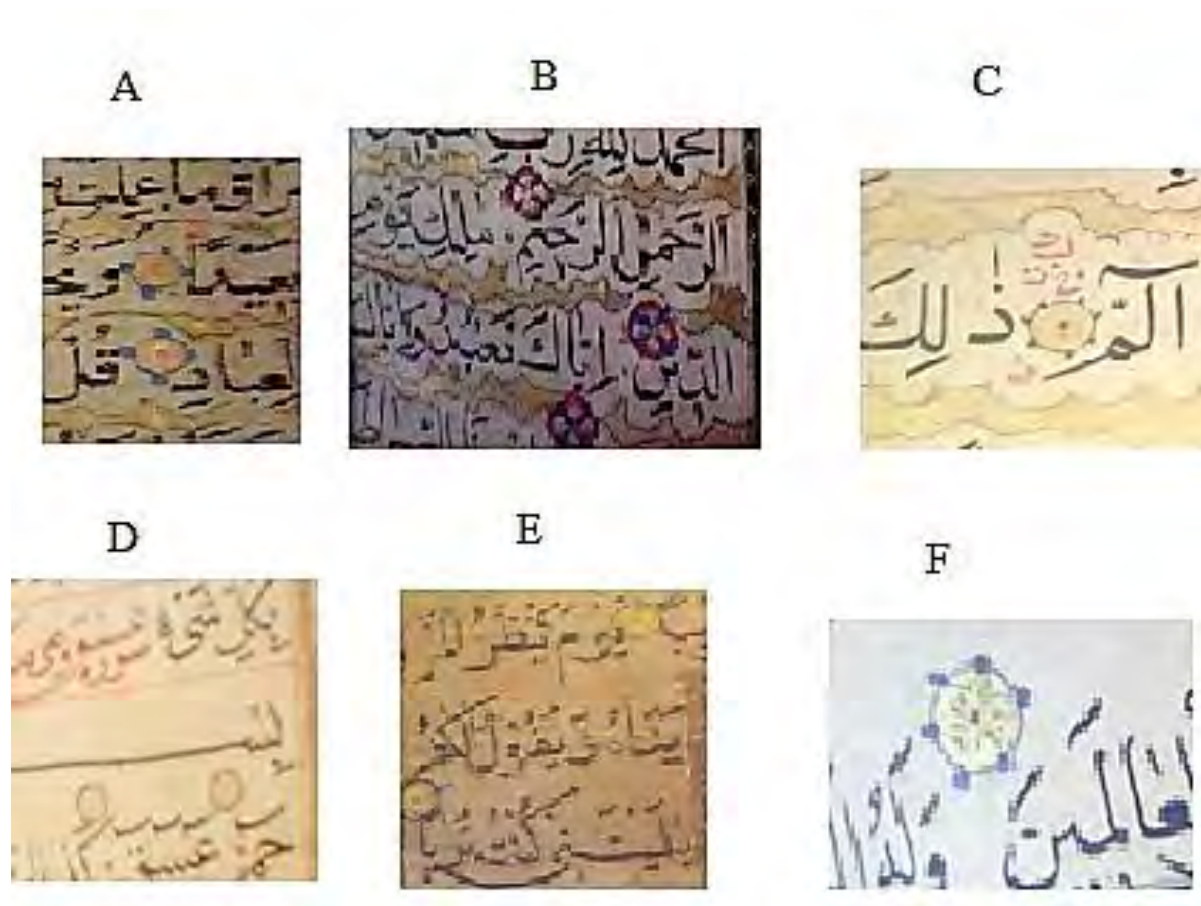
Graph. 11 Results shows that the most common *aya* mark is golden round (black outlined).

Table 8.3 Results of group B *Aya* marks

Round R	Round GB	Round GL	Nil	8dot f GB	8dot R GB	6dot R GB	6dot f GB
14	6	113	135	2	2	6	1
5dot R GL	5dot R GB	5dot R GR	4Dot R GR	4dot R GL	4dotR RL	4dot R GB	4dot R GB
7	4	2	1	4	1	3	

Table. 8.3 A variety of *Aya* marks are shown in this table.

The *aya* mark of 4 dot, 5 dot 6 dot and 8 dots are the rare in the 15th century manuscripts. Many QMs have these *aya* marks in only illuminate pages and other pages bare *aya* marks of round shape. There is a minor difference in colour combination such as golden alone and golden with other contrast colour (blue, red and green).

Figure. 12 *Aya* indicator and its different shapes

Among the 305 QMs, 113 QMs (37%) has round *aya* marks (golden with black outline). Here nil means no indicator found in shape form but in Arabic alphabet (ن ط ن لا ح م) present and works as indicators. It is a simple and ancient style but revives in 16th century manuscripts especially design for daily recitation/domestic. These manuscripts are less illuminated in nature and casually designed for middle or lower class of society.

These colourful manuscripts are a true example of Islamic art. Artists worked as spreader, supplier and donator of this art. These QMs are true examples of Persian, Ottoman and regional hybrid style promoted by the people of the Indian subcontinent. This land of subcontinent proved to be fertile for foreign scholars, artists, authors, historians and traders which resulted in more production, elevation of economy and uplifting of the living standard of the people of Indian subcontinent. High living standard allowed the artist to use the costly material and techniques for manuscript illumination and production. The Indian artist influenced by the Persian artistic work and used much golden and blue colour. Mostly miniature design was inspired from the Ottoman (Turkey) artist 's work.

Many artists classified their work by the presentation of their specimen. They are adding and subtracting some elements of design or change the page alignment. Just to present to the royal court, they add more gold leaves, double or triple design bands of minute details, ruled frame and lacework because they were aware of their reward so that they can earn more as compared to their expenses. For the community, they produced simple or less illuminated and mostly replaced the gold with yellow or brown colour. As they know the purchasing power of the common men.

Chapter 5

The Progress of Illuminated Qur'an Manuscript (QMs) in the Subcontinent through Ages

The present chapter deals with the variation in the manuscripts of Qur'an in the context of material and design which are from different periods (1300-1999 CE). The chronology of QMs of GBL is based on illumination (progressed through ages). It further includes QMs under different school of arts and relative chronology of QMs of GBL. The civilizations receive influences from the invaders, traders, migrated scholars and travellers. By making a tie with the outsiders or invasion bring the changes in culture, social norms, art forms, economic values, political and religious activities.

The value of the QMs is associated with the artist and scribe's work. Social and regional set up also influenced the artist and scribe work for several reasons. Such as modification in art forms according to the local taste. Secondly, to revive the art forms or to satisfy the royal court. The layout of QMs that can be affected by the three factors such as material, design and skill. Each factor has its own value, a material has the ability to classify the work in the context of expensive and ordinary. Design shows the aesthetic value of an artwork and skill only associated with the scribe and an artist. Skill enhances the quality and production of QMs, but it is dependent upon the availability of material and the aesthetic sense of design. These factors are affected by the political and social stability and a geographical condition of a region. The political and social stability promote the artwork and provide the suitable circumstances for the quality work. The geographical conditions of the region can be explained as the behaviour of the people towards nature and how they utilize the available material beneficially. The choice of material bears the internal and external interventions. Sometimes the choice of material is not done by the artist and the scribe, but it has some internal and

external intervention forces that form the trend. These interventions may have appeared in the forms of regional and foreign trade relation and acculturation of different societies. Many QMs done under the patronage of the royal court have the capacity to introduce the trend of high illuminated QMs in the society. The idea of design and material is approved by the royal court. Sometimes illuminator or scribe presented their work based on unique idea, either it is accepted or rejected by the royal court. As the King Timur did not such as the present of Omer Aqta (a court calligrapher of King Timur) which was a tiny size of the Qur'anic manuscript. Subsequently the Omer Aqta transcribed a very large manuscript of Qur'an which was brought to the king on a wheelbarrow. The manuscript was very much liked by the king and he admired the calligrapher with a handsome reward.

The religious activates also have effect on the art forms. The zoomorphic and human forms are forbidden in Islamic Art so, the QMs is designed with foliage without any figures. The influential personalities either religious or political, educated persons or art lovers can influence the society and its art forms.

Ibn Batuta (1360) in his writing explains the conquests of king Timur in which he captured the Isfahan, India, Damascus, Russia, Turkey and many more areas excluded China (Ahmad 2001: 367). Timur's invasion formed the vast kingdom where he gathered the high skilled and educated persons under the one roof. In his regime, art and craft flourished tremendously.

In the 14th century, seven main powers emerge on the map of the world such as Marinid sultan of Morocco, Egypt Mamluk Sultan, Ottoman Sultan in Turkey, the Il-khan of Persia, Chagatai empire in central Asia, Tughlaq in India and Ming in China (Ahmad 2001). After one century (from the 15th century) the Islamic world is shattered, central

Islamic lands are also partitioned among three main ruling powers of the Safavids, the Ottomans and Mughals. In all three regions the art of the book received fame (Blair 2006: 417).

Art (illumination, calligraphy and patterns) influenced by the political changes in a society. The political stability of a land given the chance of art forms to flourish remarkably. Otherwise, artists disperse, and the art of that area declines gradually.

In the case of the Indian subcontinent, mostly Muslim invader came one after another and made reforms in the region that was vital for the Islamic art and architecture. Muhammad Iqbal Bhutta mentions that the message of Islam spread through preaching or invasion but accepted by the community for many reasons. He further mentions that the Arabic peninsula and Central Asian countries have very long terms of trade with India from the ancient times (Iqbal 2007). The famous art and craft centres were Lahore and Delhi in Sultanate period. These centres were attracted by the artist and scribes for many centuries. The production of QMs has also had importance in these regions during the Delhi Sultanate and later, Kashmir appeared as an art centre in the Mughal period. The patronage and big reward encouraged the scribe and artist to illuminate the Qur'an in a prominent way. The illumination of Qur'an is not just an act of art, but it presents the God's word aesthetically (Iqbal 2007). Precious material is recommended for QMs illumination. The expenses of illumination are very high and only wealthy people can afford. So, every Qur'an is not extremely decorated. Due to the expenses, the QMs can be divided into three classes such as high-illuminated, illuminated and simple manuscript of the Qur'an.

1. High illuminated manuscripts of Qur'an exhibit an extraordinary decoration in the frontispiece and last folio (sometimes middle pages or incipit), There is extraordinary use of gilding with blue and red colour, marginal design, foliage motifs and patterns, floral borders, ruled frames, colourful *sura* heading. The first and last folio seems to be identical at look in the decoration.
2. In an illuminated manuscript (only first folios are decorated prominently, *sura* headings, ruled frames, marginal designs are not much decorated, many other

colour combinations are used in decorated folio instead of gold and blue), ruled frame, marginal and *aya* mark design are simple as compare to high illuminated manuscripts.

3. Simple manuscript (mostly these manuscripts have lost their pages either from the beginning, middle or end pages). only *sura* headings are prominent. The ruled frames are simple. The diacritical marks are in red or blue and ordinary marginal design in the round or Arabic alphabets.

A variety of styles in QMs is present in GBL collection and this variation may be attributed to the following reasons

1. The manuscripts of Qur'an belong to the different regions.
2. These manuscripts are commissioned by the different people of different interest.
3. There may be different requirements and intentions such as a scholar or teacher may have demanded a well understandable text font, translation or commentary bold text and large size of manuscript with less illumination. It may have designed for an educational purpose, so, in this case, the illuminator is free to choose the layout of the design with less decoration.
4. The manuscripts required by common people for daily recitation. These manuscripts have minimum or no illumination and variation in the size.
5. Affordability of the people may also be an important factor as the expenses of high illuminated Qur'an manuscripts are affordable by the rich community.

Sometimes sizes of the manuscript depend upon the owner of the manuscript who has commissioned the scribe or illuminator.

The illumination of Qur'an manuscripts promoted this profession and skilled person from time to time. A skilled person has developed its skill for seeking knowledge,

exploring new materials, techniques and earning money. A high-skilled person produces an accumulative effect on the economy (Walesh 2001). No doubt skill has a capacity to enhance the material and an artist can be paid well due to their quality of work.

At Shiraz in the 15th-16th century the calligraphers who were away from the court patronage, worked at home or in commercial institutions (Blair 2006: 419). Sometimes payment, donation and endowment are mentioned in the colophon of the manuscript. In the catalogue of GBL (1993), it is mentioned that high-illuminated QMs Acc.No1614 (a 17th century Qur'an) is traded/obtained against a hundred rupees. It is very high payment for the excellent artwork.

Blair mentions that export quality *Bihari* Qur'an was designed for Central Asian trade in the 17th century (Blair 2006). It means that it is a valuable trade of Indian QMs to Central Asia in the 17th century.

There is no evidence of theft or robbery of these manuscripts for many reasons which may include the religious and emotional attachment of people towards these manuscripts. They such as to present to each other and it is considered a pious act. Wealthy people love to donate these manuscripts to relatives, friends, scholars, students, mosques and tombs.

1. Chronology of QMs from the Collection of GBL Based on Illumination

The physical analysis and chronological order help to identify the characteristics of QMs and styles of illumination which may change through the ages. Manuscripts are from different periods that show the different modes of arts at different times along with similar attributes.

The chronology of 14th till 20th century is divided into three main ruling powers of the subcontinent, Delhi Sultanate, Mughal and British rule. In 14th and 15th century Delhi Sultanate

has three dynasties, Tughlaq (1320-1414), Sayyid (1414-51) and Lodi (1451-1526). Whereas Mughal (1526-1857) ruled by the multiple kings with seven prominent figures which includes Babur (1526-30), Humayun (1530-40 and 1555-56), Akbar (1556-1605), Jahangir (1605-1627), Shah Jahan (1628-1658), Aurangzeb (1658-1707), Shah Alam (1707-12). The East India company took control over the Bihar and Bengal province in 1793, then gradually replace the Mughal and took complete control of India in 1857. British Queen Victoria assumed the title of Empress of India.

1.1 First Period Sultanate Delhi (14th -15th Century)

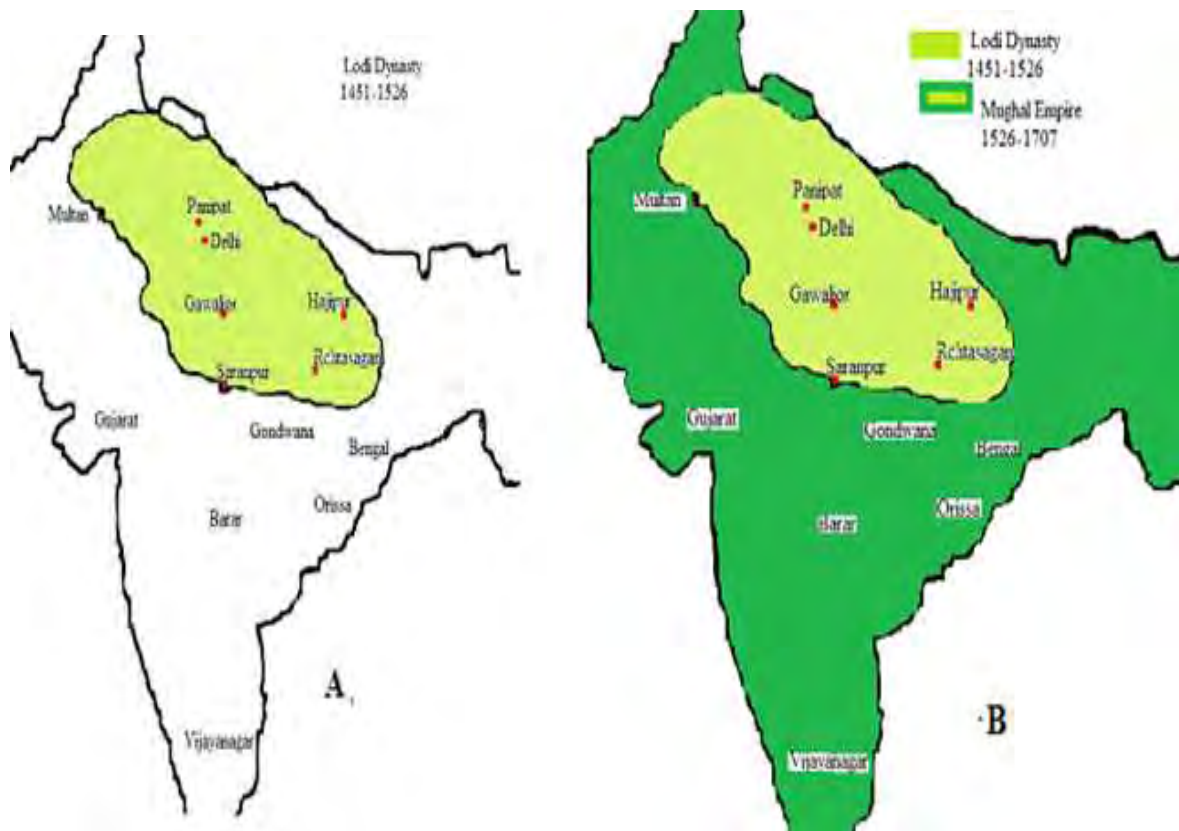
First Period ruling powers (Tughlaq 1320-1414, Sayyid 1414-51 and Lodi 1451-1526). After the Khilji dynasty, Tughlaq dynasty rise. Muhammad Tughlaq annexed the Deccan and shifted the capital from Delhi to Daultabad.

In the 14th century, Timur defeated the army of Delhi and Khizr Khan appointed as a ruler of Multan, then occupied the throne of Delhi and formed Sayyed dynasty.



Map 1 (Drawing) Tughlaq Dynasty.

Due to the conspiracy of the nobles, this dynasty also faces the downfall. Under the Tughlaq and Lodi dynasty, art workshops started their work to scribe the Arabic and Persian text on paper (quality paper from Herat, Samarqand and Kashmir) in Persian style with the fusion of Indian art forms (Welch 1985: 119). Delhi, Lahore and Daultabad were the main centres of the Sultanate of Delhi. Map 1 and 2 indicates the region under the Tughlaq and Lodi dynasty.



Map 2 (Drawing) Lodhi Dynasty(A) and the Mughal Empire (B)

Map shows the main regions which were ruled by the Lodi dynasty (Bahlul Lodi 1451-1489, Skinder Lodi 1489-1517 and Ibrahim Lodi 1517-1526 and then there was decline of Sultanate empire). Skinder Lodi shifted the capital from Delhi to Agra (Mahajan 1991). His great achievement was to annexation of Bihar (Srivastava 1966). Bihar and Gwalior were taking importance in trade and commerce. The production of *Bihari* QMs is more in numbers in GBL collection of this period. Data comprise a century tenure that is presented in the tables.

The Table 1 shows the first period that belongs to the Sultanate of Delhi.

S. No	Category	QMs Acc. No	High- illuminated	Illuminated	Simple
1	“B”	781	✓		
2	“B”	986	✓		
3	“B”	9559		✓	
4	“B”	13790		✓	
5	“A”	1598			✓
6	“A”	1599	✓		
7	“A”	4007		✓	
8	“A”	4170		✓	

Table. 1 Shows the 14th century QMs’ s style of group A and B.

The result shows that 37.5% of the manuscripts are high- illuminated (12.5% are from group “A” and 25% of “B”), 50% are illuminated (both “A” and “B” group has same numbers of arrangement 25%) whereas 12.5% are in the category of simple manuscript of Qur’an from group “A” and nil from the “B” group.

The design appearances in these illuminated manuscripts of the Qur’an are not simple. Most of the QMs are in *Bihari* style, few are in *Yaqooti* style and hybrid style. The features of *Bihari* are unique. Marginal indicators e formed in a big pear shape.

Rubrication (the word Allah is written in red or golden) is done throughout the manuscript. The QMs has frontispieces, incipits and golden clouds (under the Arabic text). Gilded borders and colourful ruled frame add the beauty in the page layout.

The margins of the QMs are filled with floral motifs with monocoloured interlaced patterns. The colour intensity of marginal design is very low. Mostly, the colour for borders is golden, pale blue/dark blue and red.

The table No. 2 represents that data from 15th century (1400 to 1499 CE).

Table. 2 **Year 1400-1499**

S. No	Category	QMs Acc. No	High- illuminated	Illuminated	Simple
1	“B”	13826	✓		
2	“B”	988		✓	
3	“B”	320		✓	
4	“B”	2245		✓	
5	“B”	3587			✓
6	“B”	4738		✓	
7	“B”	5331		✓	
8	“B”	13667		✓	
9	“B”	13791		✓	
10	“A”	787		✓	
11	“A”	824		✓	
12	“A”	1597		✓	
13	“A”	1618	✓		
14	“A”	1615	✓		

Table. 2 shows the classification of 15th century manuscripts according to the physical analysis.

The analysis of the second period (from 1400 to 1499 CE) reveals that the 21.42% of the manuscripts of Qur’an are in the category of high- illuminated manuscript (14.28% from group “A” and 7.14% from group “B”), the illuminated category comprised 71.42% (21.42% from group “A” and 50% from group “B”) of the total manuscripts, there are 7.14% of manuscripts which are in the category of simple manuscripts and all of these are from group “B”. High-illuminated QMs are less in number but superb in quality.

High quality work needed extra time and attention of the scribe and artist. This era indicates that the high-quality work is not only present in group B QMs but also found in group A. This finding shows that the translated Qur’an manuscripts are transcribed not only for the scholars but for the royal court as well.

The table 2 shows that more manuscripts belong to the category illuminated manuscript. The features of QMs in this century shows the progress in the patterns, motifs and colour combinations.

The ratio of blue and golden colour is not fixed, and it varies from one QMs to another. The complexity of design is rare in these QMs. Only a few manuscripts have some features of Mamluk style such as the complicated design and golden chain band between each border. The text box is filled with either interlaced delicate lines or motifs or golden clouds. A variety of *aya* marks (motif, geometrical shapes and coloured dots) is seen in these QMs.

Rubrication, gilding, frontispieces, mono or multicoloured ruled frame and more spaces in margins are the main features of these QMs. The overall presentation of these QMs indicates the different school of arts and styles such as *Lahori*, *Kashmiri*, *Bihari* and hybrid. Most of them are *Bihari* in styles. Some manuscripts have *waqfia* or note of donation and scribe or artist name at the end or at the beginning of the QMs. Mostly, first folio of the manuscript is fixed for the important notes regarding the importance of manuscripts, table of content, dedication, or author's name. Sometimes an author's name is found in the lower cartouche of the first folio.

1.2 Second Period, Mughal Empire (16th -19th Century)

The Mughal empire was established with the arrival of Zaheer-u-din Babur in the India who was the founder and first emperor of Mughal empire. He has devotion towards artistic writing which he inherited from his paternal and maternal forefathers (Timur and Chughtai). He also had friendly and devotional relations with scribes, calligraphers and literary people. He himself was a good calligrapher and his special style of writing called Khat-i-Baburi. He scribed the Qur'an by his own writing style and sent it to the holy city of Muslims (Makkah).

According to the Schimmel, his style of writing was not common, only Mir Abdul Haiy (from Mashhad) had adopted to practice his unusual writing style. Babur court calligraphers have

practised the six styles of writing (Schimmel 1984). Babur's artist came to be known with Central Asian and Turkish style of art mostly gilded frontispieces and incipits. They used to make clouds beneath the text and filled the patterns consisted of lines which were designed in marginal spaces of the page.

Persian and Turkish influences are seen in the Indian subcontinent during the Mughal empire. According to the historian, they firmly believe that there was a strong attachment of Humayun towards Persian calligraphers during the exile period. And when he came back to India, he was accompanied by the Shah Tahmasp's court calligraphers (Mir Syed Ali and Abd-as-Samad).

In the Indian subcontinent, 16th century brought new ideas for the artist and took deep influence from the Safavid school of art. These artists worked with regional artist and exerted their influence on the work of local art. The calligrapher's job was not only to transfers their skills but to supervise the other scribes as well.

The Persian influences took place in the colour combination and design of the QMs. The predominated colours are golden, blue and additional white. The white colour is used inside the pattern just to add the look of pearl. The white outline of the design created the 3D effect as well. Blue and golden colour is used as the alternate of one another if a background is blue then pattern and motifs are golden, and if the background is golden then foreground is designed in blue.

In the court of Mughal emperor Akbar, the calligraphers and scribes were assigned their work as *Hamza-nama* which was done by the Mir Dauri the *Katib al mulk* from Herat. An Indian scribe (of *Nasta'liq* style) Mir Nami (from Sindh) received fame in his court because he was not only a scribe but a good poet, historian and physician (Schimmel 1984: 67). During the regime of Akbar, private institutes encouraged the scribes in many ways, as the Abdur Rahim

Khan-i-Khana paid four thousand monthly salaries to the superintendent of his personal library (Zia-ud-din 1936).

Emperor Jahangir was found of *Nasta'liq* style, but he was not a good calligrapher by himself. From Herat a renowned calligrapher Abdur Rahim (*Ambreen Qalam*) joined the Jahangir's court. The Lahore was the second capital of the kingdom from Akber to Jahangir. Lahore fort has many cells for the scribes where they established workshop and taught their skills to the students. Michael Hamilton discusses that the student learnt by the paid teacher (calligraphy). These calligraphers generate money after selling their work, employing new scribes and find out commission/patronage. Sometimes these teachers lived in cells (without paying anything) nearby the mosques, forts and workshop areas (Hamilton 1987).

Royal families and rich people have their own book production workshops and libraries, where artist and scribes work under the supervision of the qualified scribe (has Ijaza/certified calligrapher) and artist. Such as, Abu al Fazal had set up an art workshop at home where King Jahangir saw that more than forty scribes were busy to work on Qur'an illumination and calligraphy (Iqbal 2007). It means the whole ruling class (king, prince, princess, noble persons, ministers) were involved in spreading the art of the book. Mughal emperor Aurangzeb set up many learning institutes in his regime. He himself was a very good calligrapher and earned money from this skill.

A renowned calligrapher of Mughal era, Syed Ali Khan titled "*Jawahar Raqam*" was his teacher. King (Aurangzeb) scribe two high illuminated Qur'an, one for the Holy mosques of Makkah and other for Madinah. Both manuscripts are prepared in seven thousand rupees of that time (Iqbal 2007). His favourite scribe Hadi-tu-llah "*Zareen Qalam*" selected as his court scribe, librarian and the teacher of his son. In his regime, hostels for students of calligraphy and religious studies were built near the grand mosque (Badshahi mosque) in Lahore.

Under the patronage of the Mughal court, Agra and Lahore became the core of the book production and Art/craft. That's why artists frequently move within the centre and acquire valuable knowledge. Persian masters are always welcomed by the Mughal court. Mughal calligraphers and illuminators of Qur'an mostly follow the style of Ahmad Nayrayzi (Persian calligrapher,1714). After the death of king Aurangzeb, the empire declined by the inside and outside disturbance in the state which also affected the production of manuscripts. In the 18th century, most of the QMs were produced with the amalgamation of old style, such as Yaqooti, Mamluk and Safavid style. In Muhammad Shah regime, librarian and calligrapher Muhamad Hafeez Khan scribed Qur'an with illumination (1780) in the *Yaqooti* style (Iqbal 2007:113).

Mulana Ilmud din Salik explained the main reason for Qur'an scribe fashioned in Subcontinent that when a person committed a sin, then he/she either scribe a Qur'an her/himself or commissioned to a scribe for that work and put it inside the shrine or mosque.

Table. 3**Year 1500-1599**

S. No	Category	QMs Acc. No	High- illuminated	Illuminated	Simple
1	"B"	4166		✓	
2	"B"	324	✓		
3	"B"	1031	✓		
4	"B"	1524	✓		
5	"B"	2434			✓
6	"B"	2686	✓		
7	"B"	2844			✓
8	"B"	3073			✓
9	"B"	3100		✓	
10	"B"	3510			✓
11	"B"	3646		✓	
12	"B"	3738			✓
13	"B"	3856			✓
14	"B"	3849			✓
15	"B"	4008			✓

16	“B”	4165		✓	
17	“B”	4845	✓		
18	“B”	4846		✓	
19	“B”	5063			✓
20	“B”	6067	✓		
21	“B”	6517	✓		
22	“B”	6899			✓
23	“B”	7191		✓	
24	“B”	7310			✓
25	“B”	7891			✓
26	“B”	7937	✓		
27	“B”	1586	✓		
28	“B”	11596			✓
29	“B”	12071		✓	
30	“B”	12888			✓
31	“B”	13785			✓
32	“B”	13786		✓	
33	“B”	13804			✓
34	“B”	3077		✓	
35	“A”	2069		✓	
36	“A”	623			✓
37	“A”	773	✓		
38	“A”	825	✓		
39	“A”	4100			✓
40	“A”	4107	✓		
41	“A”	5176		✓	
42	“A”	6623			✓
43	“A”	6891		✓	
44	“A”	13671			✓
45	“A”	3603		✓	

Table. 3 indicated the quality production of manuscript in the 16th century.

The result shows that the 26.6% of the QMs are high- illuminated manuscript (6.66% group A and 20% in group B), 28.8% are illuminated (8.88% “A” and 22.22% “B”) and 42.22 % are simple (8.88% group A and 33.33% group B). Here high-illuminated manuscripts are a little

bit less in numbers as compared to illuminated manuscripts. Overall simple manuscripts are more transcribes than others.

In the 15th century, Safavid school of art received fame in Iran with the colour combination of dark or light golden and bright blue. Golden clouds beneath the text. Now design layout has been reversed as the less use of golden colour and more use of blue (as a base colour). The influence of the Turkish and Safavid school of art is noticed in the GBL collection of QMs.

The blue colour is predominantly used in QMs (of GBL) during this century. The ruled frame's outline is also drawn in the blue colour. More spaces in the margins are seen in these manuscripts. Golden clouds on brown coloured base prepared for the Arabic text is the additional features of these QMs. The Margin signs are reduced in their sizes and mostly designed in the round shapes with pointed line. Incipits and frontispieces have a large size of shamsa where an *aya* or saying of the Prophet Muhammad is written there. There is no coordination in design of the frontispiece and the last folio, and the design of marginal signs also have no uniformity in the QMs. Rubrication and gilding is common feature of the QMs (of GBL). The QMs have some extra pages either in front or back, that has extra information for readers in the context of recitation rules, saying of prophet Muhammad or *dua khatamul Qur'an* (pray at the end of Qur'an). These QMs have *Bihari*, *Yaquti*, hybrid and *Kashmiri* style.

Blair mentions that several extra pages at the end of the Qur'an manuscripts are fashioned in 16th century onward. These ending pages are consisting of *dua-i- khatam*, recitation rules, colophons and *falnama*. These pages are written in different script styles and fonts (Blair 2006: 421).

Table.4 **Year 1600-1699**

S. No	Category	QMs Acc. No	High- illuminated	Illuminated	Simple
1	"B"	1791			✓
2	"B"	13280	✓		

3	“B”	1406		✓	
4	“B”	2390	✓		
5	“B”	4655			✓
6	“B”	12725			✓
7	“B”	1176	✓		
8	“B”	1523		✓	
9	“B”	1601		✓	
10	“B”	1612			✓
11	“B”	1614	✓		
12	“B”	1616		✓	
13	“B”	1627			✓
14	“B”	1631			✓
15	“B”	2051			✓
16	“B”	2070			✓
17	“B”	2075			✓
18	“B”	2079		✓	
19	“B”	2275			✓
20	“B”	2350		✓	
21	“B”	2468	✓		
22	“B”	2583	✓		
23	“B”	3070			✓
24	“B”	3450		✓	
25	“B”	3684		✓	
26	“B”	3737			✓
27	“B”	4192		✓	
28	“B”	4195		✓	
29	“B”	4488	✓		
30	“B”	4508		✓	
31	“B”	4509		✓	
32	“B”	4542		✓	
33	“B”	4739		✓	
34	“B”	4923		✓	
35	“B”	4948	✓		
36	“B”	5065		✓	
37	“B”	5108			✓
38	“B”	5138		✓	

39	"B"	5671			✓
40	"B"	5872		✓	
41	"B"	6110	✓		
42	"B"	6247			✓
43	"B"	9565		✓	
44	"B"	7412			✓
45	"B"	9570		✓	
46	"B"	10071	✓		
47	"B"	10581			✓
48	"B"	10583		✓	
49	"B"	10584			✓
50	"B"	10585			✓
51	"B"	11528			✓
52	"B"	11728	✓		
53	"B"	11745		✓	
54	"B"	12295			✓
55	"B"	12626			✓
56	"B"	12885		✓	
57	"B"	12886			✓
58	"B"	13312		✓	
59	"B"	13609			✓
60	"B"	13666			✓
61	"B"	13782		✓	
62	"B"	13784		✓	
63	"B"	902		✓	
64	"B"	3448		✓	
65	"B"	1754			✓
66	"B"	14264		✓	
67	"A"	513		✓	
68	"A"	2698		✓	
69	"A"	3119		✓	
70	"A"	2209			✓
71	"A"	3229		✓	
72	"A"	310	✓		
73	"A"	2064		✓	
74	"A"	2503		✓	

75	“A”	2519		✓
76	“A”	2530	✓	
77	“A”	2545	✓	
78	“A”	2547		✓
79	“A”	2951	✓	
80	“A”	3330	✓	
81	“A”	4106		✓
82	“A”	6224		✓
83	“A”	6489	✓	
84	“A”	9243		✓
85	“A”	10575		✓
86	“A”	11559		✓
87	“A”	11629		✓
88	“A”	12627	✓	
89	“A”	13781	✓	

Table. 4 shows the 17th century manuscripts.

The result shows that the High-illuminated manuscripts are 15% (group A 2.24% and 12.35% group B), 46.06 % are in the category of Illuminated (group A 13.48 % and B 32.58%) and 39.32 % are in the category of simple (group A 10.11% and B 29.21%).

17th century is very important in the history of the art of the book. Turkish and Persian influences widened the spectrum of colour of Qur'an manuscripts. Numbers of manuscripts produced during this era. There is an increase in the number of illuminated manuscripts during that period.

Most of these QMs are designed as the hybrid style of *Kashmiri* and Turkish. Marginal section is divided by the multicoloured rule frame, such as one portion for marginal sign and other remains empty. Marginal signs are designed as a series of different pendant (*shamsa*, square, parallelogram and paisley shape) with pointed lines resemble *Kashmiri* QMs. Colour palette increased by the addition of green colour particularly used in Turkish QMs. The red dot and Arabic alphabetic signs are replaced by the *aya* marks in most of QMs in this century.

Table. 5 **Year 1700-1799**

S. No	Category	QMs Acc. No	High- illuminated	Illuminated	Simple
1	"B"	3334			✓
2	"B"	6659			✓
3	"B"	13827		✓	
4	"B"	2670			✓
5	"B"	9517			✓
6	"B"	5905			✓
7	"B"	4196		✓	
8	"B"	4224	✓		
9	"B"	1687			✓
10	"B"	5295		✓	
11	"B"	1646	✓		
12	"B"	8450		✓	
13	"B"	1740			✓
14	"B"	1755		✓	
15	"B"	1756			✓
16	"B"	1757			✓
17	"B"	1784			✓
18	"B"	1790			✓
19	"B"	1792			✓
20	"B"	1912		✓	
21	"B"	1998	✓		
22	"B"	2065			✓
23	"B"	2219			✓
24	"B"	2247			✓
25	"B"	2306			✓
26	"B"	2548			✓
27	"B"	2656		✓	
28	"B"	2668		✓	
29	"B"	2722		✓	
30	"B"	3447			✓
31	"B"	3644		✓	
32	"B"	3691			✓
33	"B"	3694			✓
34	"B"	3722			✓

35	"B"	3924		✓	
36	"B"	4218	✓		
37	"B"	4559		✓	
38	"B"	4654			✓
39	"B"	4708			✓
40	"B"	4806			✓
41	"B"	4713			✓
42	"B"	4844	✓		
43	"B"	4921			✓
44	"B"	4922			✓
45	"B"	4929	✓		
46	"B"	5151			✓
47	"B"	6004			✓
48	"B"	6225	✓		
49	"B"	6234			✓
50	"B"	6464			✓
51	"B"	6480	✓		
52	"B"	8605			✓
53	"B"	8607			✓
54	"B"	6942			✓
55	"B"	7463			✓
56	"B"	7826			✓
57	"B"	7817			✓
58	"B"	10049			✓
59	"B"	10925			✓
60	"B"	11595	✓		
61	"B"	11743			✓
62	"B"	11744			✓
63	"B"	12168			✓
64	"B"	12240	✓		
65	"B"	12242	✓		
66	"B"	12647		✓	
67	"B"	12699			✓
68	"B"	12812		✓	
69	"B"	13092			✓
70	"B"	13663	✓		

71	“B”	13665	✓		
72	“B”	13672			✓
73	“B”	13677			✓
74	“B”	13703			✓
75	“B”	13783		✓	
76	“B”	13803			✓
77	“B”	3444			✓
78	“B”	13655		✓	
79	“A”	4041	✓		
80	“A”	3442		✓	
81	“A”	10577			✓
82	“A”	12941			✓
83	“A”	4852		✓	
84	“A”	8145			✓
85	“A”	5105			✓
86	“A”	1632		✓	
87	“A”	1633		✓	
88	“A”	1405	✓		
89	“A”	1529			✓
90	“A”	1530		✓	
91	“A”	1619	✓		
92	“A”	1949			✓
93	“A”	2217		✓	
94	“A”	2471		✓	
95	“A”	2872		✓	
96	“A”	3074		✓	
97	“A”	3305	✓		
98	“A”	3557	✓		
99	“A”	3752		✓	
100	“A”	4114	✓		
101	“A”	4599			✓
102	“A”	4772		✓	
103	“A”	5059			✓
104	“A”	5185		✓	
105	“A”	5334		✓	
106	“A”	6074	✓		

107	“A”	7378		✓
108	“A”	7692		✓
109	“A”	7936	✓	
110	“A”	8531		✓
112	“A”	10091		✓
113	“A”	10576		✓
114	“A”	10661	✓	
115	“A”	12085		✓
116	“A”	12092		✓
117	“A”	12690		✓
118	“A”	13828		✓
119	“A”	3609		✓
120	“A”	13656		✓

Table. 5 shown the 18th century manuscripts (GBL collection).

The analysis of the manuscripts of Qur’an from this century (1700-1799 CE) reveals that that simple category of manuscripts is significantly high in number which comprised 55% (group A 13.33% and B 41.66%) of the total manuscripts. It is followed by illuminated category which comprises 26.66% (group A 13.33% and B 13.33%) and high- illuminated category includes 18.33% (group A 7.5% and B 10.83%) of the total manuscripts of this century. In this era again, the simple manuscripts are produced in more numbers. Overall manuscript transcriptions and conservation are found at a high level in this century.

Although the printing press works for the immense production of books but somehow it was not recommended for the special book (religious) due to the possible occurrence of the mistakes and without illumination.

Most high illuminated QMs designed as these are the revival of the old style. Each QMs look such as a replica of different centuries work. Colour palette is modified day by day as black colour is also used instead of blue and maroon. Multicoloured foliage borders are enhanced by the black background. Instead of golden clouds a multicoloured foliage band designed under the Arabic text.

1.3 Third Period British Rule and Partition (19th -20th Century)

Centres of art and calligraphy established in Lahore, Delhi and Lakhnau for many years. The eighteenth century is the declining era of the Mughal empire (1526-1857) and the Sikh regime (1799-1846) while there is emergence of the British colonialism (1857-1947). The situation has changed in 19th century with the desperation, anarchy and dispersion of royal court artist. They work on wages and produced their work only for the commercial bases. The important industries that work under the patronage of royal court such as, ink making, reed/pen making, gilding, leather dying, binding, papermaking, illumination, and painting were affected by the new ruling ship of British. Only pen and ink making industry survived. In this century, Punjab produced the simple Qur'an without gilding or expensive illumination otherwise in Kashmir the Qur'an manuscripts are still decorated and illuminated but not as fine as in the Mughal regime. With the decline of the Mughal era, many famous scribes shifted from Lahore to nearby areas.

The introduction of the press may cause the reduction of illuminated QMs. Initially religious books are not recommended for printing, but later, it played a vital role for more Qur'an production in less time with less expenditures. According to Iqbal Bhutta, eight *Hafiz -i- Qur'an* were employed in the *Munshi* Ghulab Singh press and their task was to keep an eye of any omission or error in the printing of Qur'an.

Lahore is also a centre of art, craft and literature of a new-born state of Pakistan. The printing press worked well in this city and followed the styles of master calligraphers, Yaqut al Mustasmi, Sheikh Hamad Ullah, Mustifa Zada, Hafiz Usman and Mustafa Izat for the printing of Qur'an in a short time.

During this time, very less QMs are scribed by the calligraphers. Their participation proved to be vital for the manuscript production. These scribes visited many calligraphic centres inside

and outside the country just to alive the art of the book. Different regions of Punjab played incredible role in the revival of this art such as which includes Sialkot and Gujranwala's adjacent areas Pir Kot, Aadil Ghar, Kot Waris and Kilainawala (Iqbal 2007).

Table. 6 **Year 1800-1899**

S. No	Category	QMs Acc. No	High- illuminated	Illuminated	Simple
1	"B"	12884			✓
2	"B"	13662			✓
3	"B"	4327			✓
4	"B"	6519	✓		
5	"B"	13696			✓
6	"B"	2691			✓
7	"B"	1132		✓	
8	"B"	1852			✓
9	"B"	760	✓		
10	"B"	827	✓		
11	"B"	5982	✓		
12	"B"	3076	✓		
13	"B"	2248			✓
14	"B"	2251			✓
15	"B"	3155		✓	
16	"B"	2068			✓
17	"B"	7818			✓
18	"B"	12887			✓
19	"B"	1826			✓
20	"B"	2005			✓
21	"B"	2076			✓
22	"B"	2091			✓
23	"B"	2203			✓
24	"B"	2246			✓
25	"B"	2349		✓	
26	"B"	2352			✓
27	"B"	2354		✓	
28	"B"	2376			✓
29	"B"	2391			✓

30	"B"	2535		✓
31	"B"	2536		✓
32	"B"	2537	✓	
33	"B"	2538		✓
34	"B"	2539		✓
35	"B"	2540		✓
36	"B"	2541		✓
37	"B"	3449		✓
38	"B"	3513		✓
39	"B"	3583	✓	
40	"B"	3692	✓	
41	"B"	3695		✓
42	"B"	3696	✓	
43	"B"	3697		✓
44	"B"	3807	✓	
45	"B"	3835	✓	
46	"B"	4661	✓	
47	"B"	4771		✓
48	"B"	4773		✓
49	"B"	4829		✓
50	"B"	4862		✓
51	"B"	4863		✓
52	"B"	4928		✓
53	"B"	4947	✓	
54	"B"	4949		✓
55	"B"	5002	✓	
56	"B"	5189		✓
57	"B"	5229		✓
58	"B"	5248		✓
59	"B"	5297		✓
60	"B"	6461		✓
61	"B"	6520	✓	
62	"B"	6806		✓
63	"B"	7152	✓	
64	"B"	7566		✓
65	"B"	7713		✓

66	“B”	7881		✓
67	“B”	7888		✓
68	“B”	8062		✓
69	“B”	9516		✓
70	“B”	9574		✓
71	“B”	9648	✓	
72	“B”	9769		✓
73	“B”	11598		✓
74	“B”	11599		✓
75	“B”	8659		✓
76	“B”	12182		✓
77	“B”	12529	✓	
78	“B”	12814		✓
79	“B”	13359		✓
80	“B”	13360		✓
81	“B”	13401		✓
82	“B”	13402	✓	
83	“B”	13584		✓
84	“B”	13610		✓
85	“B”	13664		✓
86	“B”	13670		✓
87	“B”	13792		✓
88	“B”	13800		✓
89	“B”	13802		✓
90	“B”	13820		✓
91	“B”	5663		✓
92	“B”	1630		✓
93	“B”	11565		✓
94	“A”	12241		✓
95	“A”	5107		✓
96	“B”	13608		✓

Table. 6 indicated the classification of manuscripts that belongs to the 19th century.

High-illuminated manuscripts are 10.52 % (both group A and B), illuminated manuscripts are 17.89% (group A and B) and simple category manuscripts are 71.57% (group A and B). The

high illuminated and illuminated QMs has not maintained the expensive material such as gold and lapis lazuli (blue) and less use of gold is examined in these QMs.

The substitutional colours of gold are brown and yellow and blue is replaced with red or maroon.

Most of the simple QMs has no border or ruled frame and marginal design. Only red Arabic alphabetic sign are present in these QMs. Rubrication technique is used for *sura* heading only.

Table. 7 **Year 1900-1999**

S. No	Category	QMs Acc. No	High- illuminated	Illuminated	Simple
1	“B”	5296	✓		
2	“B”	5297			✓
3	“B”	5308			✓
4	“B”	5577			✓
5	“B”	5660			✓
6	“B”	5732			✓
7	“B”	5802			✓
8	“B”	5817			✓
9	“B”	5966			✓
10	“B”	4164	✓		
11	“B”	3263			✓
12	“B”	3888			✓
13	“A”	780	✓		

Table. 7 showed the 20th century manuscripts.

The QMs of this time period have 23.08% of high- illuminated (group A 8.3% and group B 15.38%) and 76.92% manuscripts are in the category of simple manuscripts (group A and B).

High illuminated QMs are mostly in *Kashmiri* and hybrid *Lahori* Style. This century QMs features are similar to the 19th century QMs design. The table 8 indicates that the QMs lay in each century has not equal in numbers. The values are fluctuated from high to low and low to high.

Table. 8 Physical Appearance of Manuscripts and Classification

Year	A			B		
	High Illuminated	Illuminated	Simple	High Illuminated	Illuminated	Simple
1300-99	1	2	1	2	2	0
1400-99	2	3	0	1	7	1
1500-99	3	4	4	9	10	16
1600-99	2	12	9	11	29	26
1700-99	9	16	16	13	16	50
1800-99	0	2	0	10	16	67
1900-99	1	0	0	2	0	10
Total	18	39	30	49	81	170

In table 8 indicated that in the 18th century, both group A and B has more, high illuminated manuscripts of Qur'ans.

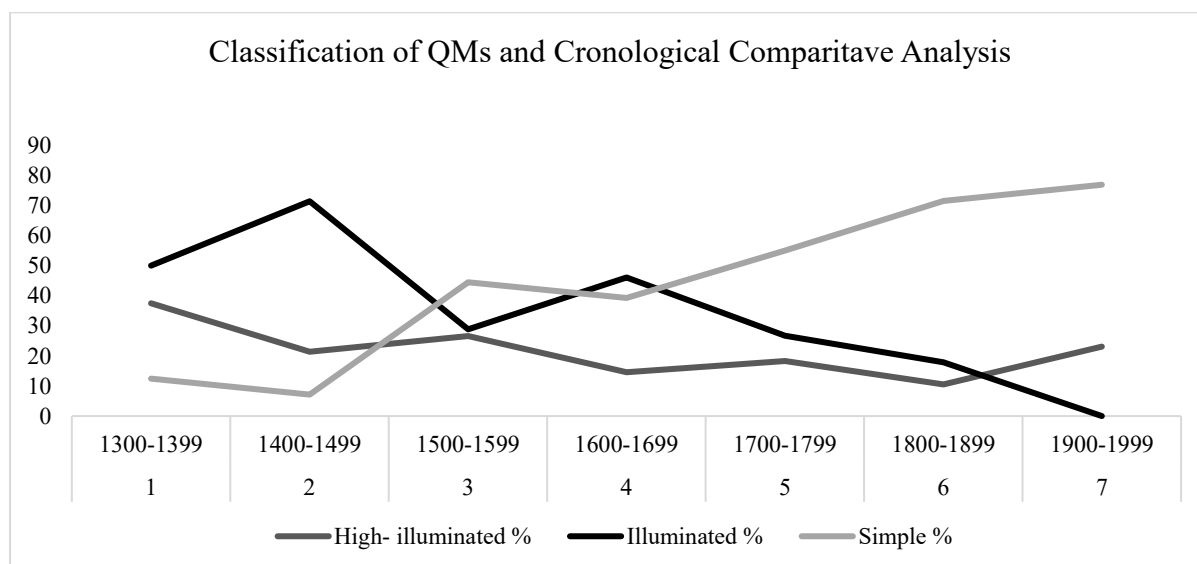
A significant number of illuminated manuscripts of Qur'ans of group A are produced in the 18th century, while group B in the 17th century. In the case of simple QMs in group A, more numbers of manuscripts are identified in the 18th century, but simple from group B are produced in the 19th century. The overall sum of high illuminated is 67 manuscripts, illuminated manuscript 120 in numbers and 200 manuscripts are simple, in a collection of GBL (14th century to 20th century).

Table. 9 Chronological Comparative Analysis of High-illuminated, Illuminated and Simple Manuscripts of Qur'an

S. No	Year	High- illuminated % (A and B)	Illuminated % (A and B)	Simple % (A and B)
1	1300-1399	37.5	50	12.5
2	1400-1499	21.42	71.42	7.14
3	1500-1599	26.6	28.8	44.5
4	1600-1699	14.60	46.06	39.32
5	1700-1799	18.33	26.66	55
6	1800-1899	10.52	17.89	71.57
7	1900-1999	23.08	0	76.92

Table. 9 indicating the chronological transcriptions and classification of the Qur'an manuscripts.

Table 9 shows the overall percentage of QMs production in each century (1300-1999). From the 16th century, the simple QMs has the progression attribute very high as compare to high illuminated or illuminated QMs.



Graph.1 Shows the attributes of manuscripts production, classification and chronological order.

In the year 1300-1399, high illuminated manuscripts are in fashion in that century, but fluctuated values are examined here as it is high in the 14th century and a little bit low in the 15th century. From 17th to 20th century the value of percentage shows up and down significantly. In the case of illuminated manuscript, its start from the 14th century till 19th century.

It is also fluctuated but comparatively more production rate is examined here. However, simple manuscripts are less produced initially, then increased by the time. The graph shows simple manuscripts are more produced in the 18th, 19th and 20th century.

It's proves that initially manuscripts are illuminated and high illuminated, but gradually simplified. The important factors for simple manuscript production include lack of patronage, less importance of skilled person, shortage of skill persons, political instability, stratified social setup and recession in the economy and less wages

2. QMs Under the Different Schools of Art

Art of the book faces many transitional periods under the Muslim expansions. Its beautification/way of illumination increased day by day in different areas of the Muslim world. Invasion, expansion of religious activities of Islam, innovation and passion of patronage of art of the book encouraged the book production especially Qur'an manuscript in the subcontinent. These schools of art worked under the patronage of the royal court, so it can be elaborated according to the chronology (first period Sultanate of Delhi, second period Mughal empire, third and last British rule towards independent India, Pakistan and Bangladesh).

2.1 Lahori Styles and Its Types

The historic value of city Lahore is very important. Many more foreign and regional influences have impact on the art of Lahore. The arrival of new ideas in the art forms encouraged by the artists of Punjab, Delhi, Deacon, Agra and Daultabad. The Indian relations with Arab and invaders from Central Asia brought the changes in the art of the book in the Subcontinent.

Indian religious books were also decorated but in a specific pattern. Such as the material for writing were birch bark, palm leaves with a limited colour palette of red, yellow, black and white. The reason behind the expansion and different trends of Islamic art of the book is that it is not specific for the religious community, it is practised by the emperors, scholars, students, religious persons, traders, physician and women either princesses or household. It also flourished under the ruling ship.

Ibrahim Ghaznavi was found of art and literature and in his period of ruling ship, he promoted the art activities and encouraged the scholars, artist, artisan and made the Lahore vital for literary and artistic activities (Iqbal 2007). Indian scribe selected the *Naskh* and *Thuluth* mixed with *kufic* for Qur'an calligraphy and took inspiration from central Asian calligraphers. In the

Mughal era, a dynamic period to produce an illuminated manuscript of the Qur'an. Lahore again considered as the core of art and literature parallel to Agra and Delhi.

Many more artists came from central Asia, Turkey and Persia to amuse the Mughal court. King himself, use to work as a scribe of many manuscripts of the Qur'an. They sponsored the cost of scribe's work. The Qur'an manuscript scribed for attaining the faith of Allah, considered as pious act and making fortunate for many centuries. At the end of Mughal era, the QMs scribed without much consideration towards illumination, colours and design. There are several reasons behind it, firstly, without the patronage of royal or chancellery scribed is unable to manage the expenses of gilding and expensive minerals colours secondly, dispersion of skilled persons due to instability of ruling ship, thirdly, the common people did not afford the expensive illuminated manuscripts, fourthly, a lot of workshops, mills/ factories of materials related to the art and craft collapsed due to the anarchy in the region.

The circumstances were not favouring to art and literary community. So, they disperse towards the other areas where they can survive their knowledge and skills. That's why during the 18th century all artists, artisan and scholar tried to put their effort to revive the cultural heritage of the Islamic book of art by scribing the valuable illuminated manuscripts. Mostly the QMs is scribed and designed in a hybrid style (a mixed style of Persian, Turkish and Egyptian).

The present study finds many more styles of Lahore school of art related to Qur'an manuscript. Because a lot of scribed preferred to be settling down here for their better future. They spread their skills towards the natives.

GBL collection's QMs, Lahore school of art that belongs to the 16th century to 20th century. QMs Acc. No. 2844, 3856, 13786, 3077, 1791, 13280, 4655, 1631, 2075, 2079, 12725, 1523, 1601, 1627, 2051, 2275, 3070, 4509, 4542, 2468, 5065, 5108, 5138, 2350, 3684, 4739, 4923, 4948, 7412, 10071, 10581, 10583, 10584, 10585, 11528, 11728, 11745, 12884, 12885, 12886,

13312, 13609, 13666, 13782, 13784, 3448, 3334, 6659, 2670, 9517, 4196, 4224, 1687, 6659, 5905, 5295, 8450, 1784, 1998, 2219, 2306, 2548, 3447, 3691, 4921, 4922, 4929, 5732, 5802, 5817, 6225, 7463, 8605, 8607, 3076, 2251, 2068, 2076, 2246, 2352, 2354, 2376, 4949, 6461, 6806, 12814, 3888, 1132. The QMs of GBL collection's colophon identified the following calligraphers such as Al-abd Zaeef Doost, Bakir Ali, Gul Muhammad, Haji Dargha, Syed Ladha bin syed Muhmmad, Muhaiu -din Muhammad Shah Ghazi, Faqeer Al Haqeer, Al Faqeer Abdul Qadir bin Yar Muhammad, Taj Muhammad, Faqeer Syed Qutubudin, Anaytullah , Faqeer Jamaullah, Sheikh Ahmad, Mullah Qasim, Muhammad Zaqir, Deen Muhammad bin Touraze, Muhammad Saeed, Abdullah bin Maghfori, Murad Khan, Mian Hafiz, sheikh Muhau din, Malik Hafiz Ghulam Muhammad, Maqsood Ali, Nizamu din Ahmad, Mian Abdur Rasheed, Farukh Fal ibn Kamalu din, Abdur Raheem, Mian Muhammad Zaman, Juma Quli bin Barkali, Mullah Allihi Bakhsh, Nazak ibn Yousif, Hafiz Muhammad Aqil, Ahmad Yar and Syed Sadiq Ali.

The illuminated manuscript of the Qur'an initially fashioned in Mehmood Ghaznavi 's reign and its zenith period are the Sultanate of Delhi. The present study finds out that all QMS of GBL collection produced in Lahore are without translation. *Lahori* style has some special styles, later associated with the Master scribed, regional or chancellery such as *Yaquti*, hybrid, Gujrati style QMs (QMs Acc. No. 1612, 2722, 7881), Kurasani (QMs Acc. No 4738, 4846, 827) and Herati (QMs Acc. No13826, 13791, 1031, 13804, 13827, 773).

Lahori style has a variety of styles, for many reasons such as chronological change in style, calligraphers own style, internal and external influences etc. These manuscripts tell the story of the zenith and downfall of the art of the book as 17th century manuscript (Fig. 1) has an expensive look due to the golden and blue colours but less in difference to 16th and 15th century manuscripts .

In figure 1, text box is enclosed with two illuminated borders. First border near the text box has a blue background and golden cartouches filled with foliage design. Next border has a golden background designed with a blue and golden pendant. It is filled with coloured patterns (maroon and pink) inside the pendants.



Figure. 1 Image A and B Manuscript of Qur'an Access No. 1601, belong to 17th century, double page (mirror image) frontispieces are richly illuminated.

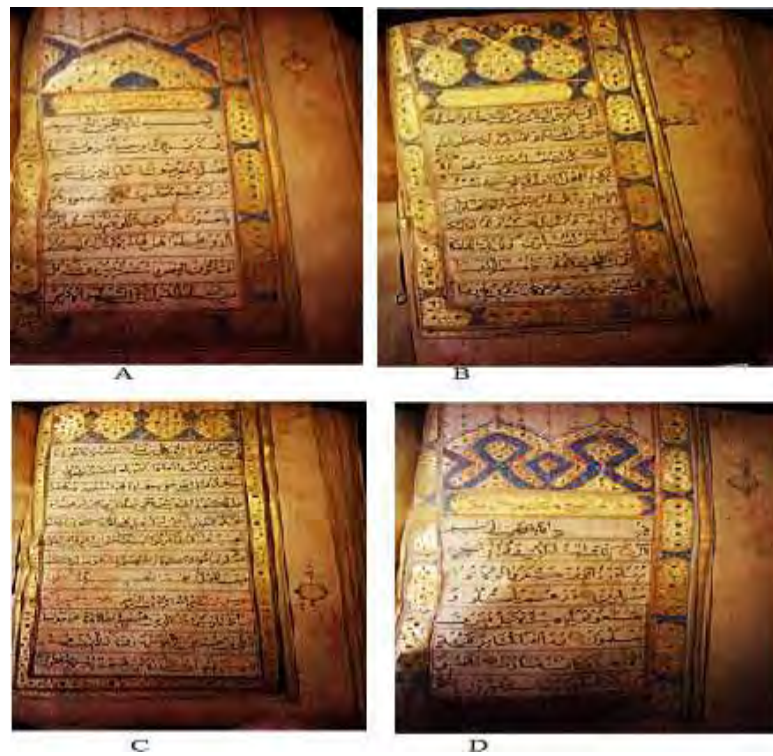


Figure. 2 A 18th century QMS Acc. No. 4224

The QMs has 8 to 10 lines per page. It was a Syrian tradition (even lines per page) that they have brought the tradition to Cairo probably (Blair 2006). The second page (B) cited the “*waqfia*” (written in Persian as *Az Dast-e-Sarnad Khan* and Arabic *Hadha al Qur’an waqfia feesabililha*) meaning that it is donated by Sarnad khan in the way of Allah (this *waqif*’ shows that it is not written for commercial point of view).

Eighteen-century Qur’an manuscript (Fig. 2, A, B, C and D) sometimes designed as it looks such as an album of the illuminated chapter of different centuries. The QMs Acc.No. 4224 is a true example of the above mentioned style. This style is adopted to revive and highlight the styles of past century’s art of the book in Lahore. This QMs has unique illuminated pages of each chapter (from one to thirty *para/parts*) illuminated pages number are 16, 42-43, 104-105, 166, 198, 227, 262, 294, 328, 360, 390, 422, 454, 484, 510, 542, 574, 604, 636, 664, 694, 719-720, 750, 808, 836, 838, 870). Its calligrapher name Faqeer Syed Qutubudin Ali Khan Bahader Hussaini Darwesh Uraf Syed Mustafa (pages are 228, 540, 691) and place Benghor (page 228) is mentioned in the manuscript. In figure 2 A, B and D images have the same style of cartouches borders, however, C has gilded border with ruled frames. More than 70% QMs a collection of GBL belongs to the *Lahori* school of art.



Figure. 3 QMs Acc. No. 12884 of 19th century, page divided into three parts first and last for decoration and middle for Arabic text along with ruled frame.

In the 19th century, the Qur'an manuscript (Fig. 3) is a casual piece of art. Brown paper and limited colour palette show the lack of interest toward illumination. The simplicity and casual treatment of design indicate the declining period of the manuscript, when the expensive material is not used for QMs. The target market of this manuscript is middle or lower class.

2.2 *Yaquti* Style (Juxtaposed Script Style)

The calligrapher and scribe of Qur'an, Yaqut belongs to Amasya, served as secretary of Al-Musta'sim court (1242-58). He modified the pen for the different styles of Arabic scripts. He used the obliquely cut pen for *Naskh*, *Thuluth*, *jali* and introduced a new trend to the Muslim scribe (Aziz 2004).

Annemarie Schimmel mentions the Yaqut's style as he trimmed pen to create the distinguishable effect of thick and thin strokes in the Arabic style. His effort made the Arabic script more elegant and powerful (Schimmel 1984).

According to the Martin Lings, that *Yaquti* style is a developmental and progressed form of Ibn al-Bawwab's style of Arabic calligraphy. He is considered as a master of calligraphers, later his style is modified by the predecessors' calligraphers of Ottoman Turkish and Persian Safavid in 16th-17th century. Later, the style of Yaqut reached Indian through his pupils (Lings 1976).

The features of *Yaquti* style is written in two or three scripts in one-page, Arabic script in *Rihani* style is sandwiched between the first, middle and last of *Muhaqqaq* style. *Rihani* script is considered the small script of the *Muhaqqaq* that also has some common feature of *Naskh* style. The calligraphers progress this juxtaposed with regional styles of *Naskh* (beautiful *Naskh*, bold *Naskh* or mature *Naskh*, elongated *Naskh* called *jali Naskh*, etc.) or *Thuluth* with *Naskh*.

Qur'an manuscript scribed and illuminated in the *Yaquti* style has some distinguishable features which include the following

- 1). Arabic whole text in *Rihani* and the heading is written in *kufic* or *Thuluth* style.
- 2) Arabic text in *Naskh* with *Thuluth* heading mostly outlined and illuminated with expensive colours.
- 3) *Muhaqqaq* heading in square or rectangle box and Arabic text in *Naskh*.
- 4) First, middle and last line in *Muhaqqaq jali*, other lines written in *Naskh*.

Turkish calligraphers preferred the *Rihani* with *Thuluth*, whereas Indian calligraphers preferred the combination of *Naskh* with *Thuluth* (Fig. 4 and table 10).



Figure. 4 The 14th century QMs Acc. No.986, written in *Thuluth* and *Naskh*, eleven lines per page.

The QMs (Fig. 4) has a unique style. It is not written in one style. It is divided into two parts. One part is written in *Yaquti* style and other in *Naskh* only. This characteristic is examined in most of GBL collection of QMs. The possible explanation may be that the task was completed

by two different scribes or two different QMs (that have deterioration from front or back) joined in one binding.



Figure. 5 The 17th century QMs Acc. No.1406, written in *Naskh Jali* and *Naskh* beautiful.

In figure 5 *Naskh Jali* is written instead of *Thuluth*. It would be possible that scribe has a command on *Naskh Jali* rather than *Thuluth*. Coloured ink is used for *Naskh Jali* style. The *Naskh* textbox has border on both sides of left and right. The effect of clouds is present in the form of curved lines beneath the text.



Figure. 6 The 16th century QMs Acc. No.3100, written in *Thuluth* and *Naskh*.

In figure 6 the QMs is written in *Thuluth* and *Naskh*. The text box is bounded by a ruled frame.

The *Thuluth* text lines have no special box just demarcation line has been drawn between the both texts. Ink colour is the same for both styles (*Thuluth* and *Naskh*).

For the choice of total lines per page there is no hard and fast rule for a calligrapher. The present study shows that 11 lines per page found in manuscripts from the 14th, 18th and 19th century, 13 lines per page, in the 17th and 18th century and 15 lines in the 16th (Fig. 6) and 17th century. *Thuluth* with *Naskh* and a variety of *Naskh* is preferred for these manuscripts of the Qur'an. GBL collection indicates that chronologically, these manuscripts are from the 14th century to the 19th century.

Total lines per page are mostly 11 (Fig. 4), 13 (Fig. 5) and 15 (Fig. 6) as per size of the page and calligraphic style. The data of *Yaquti* style is mentioned in table 10.

Table. 10 *Yaquti* Style of the Qur'an in GBL Collection

QMs Acc. No	Year	Total Lines	1 st style of Arabic script	2 nd style of Arabic script
986	1398	11	<i>Thuluth</i> , 1,6 and 11 line	<i>Naskh</i> , 2-5 and 7-10 line
13677	1785	11	<i>Thuluth</i> , 1,6 and 11 line	<i>Naskh</i> , 2-5 and 7-10 line
1132	1830	11	<i>Naskh Jali</i> , 1,6 and 11 line	<i>Naskh Beautiful</i> , 2-5 and 7-12 line
13672	1785	13	<i>Naskh Jali</i> , 1,7 and 13 line	<i>Naskh Beautiful</i> , 2-6 and 8-12 line
1406	1643	13	<i>Naskh Jali</i> , 1,7 and 13 line	<i>Naskh Beautiful</i> , 2-6 and 8-12 line
6480	1785	15	<i>Thuluth</i> , 1, 8 and 15 line	<i>Naskh</i> , 2-7 and 9-14 line
3100	1591	15	<i>Thuluth</i> , 1, 8 and 15 line	<i>Naskh</i> , 2-7 and 9-14 line
Total	07			

Table. 10 notified the seven manuscripts of *Yaquti* style from the GBL collection.

All manuscripts belong to Group "B". The Qur'an Acc. No.1406 has colophon that mentioned the name of calligrapher "Muhammad bin Khwaja Muhammad Sadiq Al Karmani". All

manuscripts are written in prominent and broad text in odd lines and smaller text in even lines. At the start *Thuluth* and *Naskh* style is used for Qur'an manuscript, later *Naskh jali* and beautiful *Naskh* is a combination preferred by the Indian scribe. Total manuscripts are seven in numbers ($7/395 \times 100 = 1.77\%$)

2.3 Hybrid Style of Illumination (of *Lahori* Style Mixed with Persian, Turkish or *Kashmiri*)

The significant feature of the Indian and Persian Qur'an manuscripts is often illuminated with double first & two and last two pages and illuminated headpieces. Persian illuminators preferred the lapis-lazuli (blue colour), brick red ink and yellow gouache is preferred by the Indian illuminator and the use of the gold paint is noticed in the work of Ottoman illuminators (Gacek 2013).

Hybrid style is associated with the Turkish illuminators and painters. According to the James, the hybrid style is developed by the less talented illuminators and painters (Syed 2015, James 1992). Further, James discussed that Turkish and Mamluk illuminator took initiatives to produce the hybrid style by mixing up the Timurid and Mamluk styles later on, Indian illuminators mixed up the Iranian and Anatolian elements along with regional style.

Mughal art of the book is also famous for the hybrid style. The adoption of the Persian art forms, calligraphic style, colour pallet and designs were very strong in the 17th century onwards (Syed 2015). The promoters of hybrid style calligraphers of QMs (GBL collection) are, Sultan Muhammad bin Muhammad, Mir Kallan Sahib, Husain bin Muhammad Sherazi, Noor Muhammad, Syed Ibrahim Adam, Ali Akbar bin Muhammad Al Hasni, Muhammad Panah bin Muhammad Sheikh Abdul Majeed bin Jiwan bin Sheikh Sheikh Muhammad, Faqeer Haqeer Ahmad Muhammad Azam, Abdul Baqi, Allah Yar Muhammad Jafar Al-Qadri, Syed Sadiq Ali Hosseini, Imam Shah Hosseini. The data of hybrid style is presented in table 11.

Table. 11 Hybrid Style Group A and B

QMs Acc. No	Year	Calligrapher	Hybrid style
4844	1785		<i>Lahori with Kashmiri</i>
13663	1785		<i>Lahori with Kashmiri</i>
13608	1836	Sultan Muhammad bin Muhammad	<i>Lahori with Kashmiri</i>
5002	1882		<i>Lahori with Kashmiri</i>
5248	1882		<i>Lahori with Kashmiri</i>
7152	1882		<i>Lahori with Kashmiri</i>
12529	1882	Mir Kallan sahib	<i>Lahori with Kashmiri</i>
13820	1882		<i>Lahori with Kashmiri</i>
11565	1855		<i>Lahori with Kashmiri</i>
1524	1591		<i>Lahori with Persian style</i>
2686	1591		<i>Lahori with Persian style</i>
781	1389	Husain bin Muhammad Sherazi	<i>Lahori with Persian style</i>
6067	1591		<i>Lahori with Persian style</i>
4192	1688		<i>Lahori with Persian style</i>
4195	1688		<i>Lahori with Persian style</i>
4508	1688		<i>Lahori with Persian style</i>
9570	1688		<i>Lahori with Persian style</i>
902	1694		<i>Lahori with Persian style</i>
1912	1785		<i>Lahori with Persian style</i>
2668	1785		<i>Lahori with Persian style</i>
13783	1785		<i>Lahori with Persian style</i>
13402	1882		<i>Lahori with Persian style</i>
12558	Nil		<i>Lahori with Persian style</i>
13655	1785		<i>Lahori with Persian style</i>
14264	1693	Noor Muhammad	<i>Lahori with Persian style</i>
5331	1494		<i>Lahori with Turkish style</i>
6517	1591		<i>Lahori with Turkish style</i>
3644	1785		<i>Lahori with Turkish style</i>
3155	1869	Syed Ibrahim Adam	<i>Lahori with Turkish style</i>
4488	1688		<i>Lahori with Turkish style</i>
Group A			
QMs Acc. No	Year	Calligrapher	Hybrid style

773	1591	Ali Akbar bin Muhammad Al Hasni	<i>Lahori with Kashmiri</i>
1949	1785		<i>Lahori with Kashmiri</i>
5176	1591		<i>Lahori with Kashmiri</i>
2069	1505	Muhammad Panah bin Muhammad	<i>Lahori with Persian style</i>
4107	1591	Sheikh Adull Majeed bin Jiwan bin Sheikh Muhammad	<i>Lahori with Persian style</i>
3603	1595		<i>Lahori with Persian style</i>
780	1785		<i>Lahori with Persian style</i>
3229	1682	Faqeer Haqeer Ahmad	<i>Lahori with Persian style</i>
2530	1688	Muhammad Azam	<i>Lahori with Persian style</i>
2545	1688		<i>Lahori with Persian style</i>
3330	1688		<i>Lahori with Persian style</i>
6489	1688	Abdul Baqi	<i>Lahori with Persian style</i>
13781	1688		<i>Lahori with Persian style</i>
4852	1771	Allah Yar Muhammad Jafar Al- Qadri	<i>Lahori with Persian style</i>
1632	1785	Syed Sadiq Ali Hosseini	<i>Lahori with Persian style</i>
2471	1785		<i>Lahori with Persian style</i>
3305	1785		<i>Lahori with Persian style</i>
12913	Nil		<i>Lahori with Persian style</i>
12941	1738	Imam Shah Hosseini	<i>Lahori with Turkish style</i>
Total	49		

Table. 11 Indicated the hybrid styles of manuscripts.

The result (table 11) shows that there are manuscripts with hybrid styles which includes the *Lahori with Persian* and *Lahori with Kashmiri* style. Total 48 manuscripts are found in hybrid style ($49/395 \times 100 = 12.19\%$). Most of the QMs of GBL collection has dual features (Persian and Turkish) in *Lahori* hybrid style which can be observed in figure 7. A lot of gold paint, clouds under the text and pointed marginal design are associated to the Turkish influence whereas two decorated borders are the main features of Persian style



Figure. 7 It has the *Kashmiri* patterns with Persian colour combination and Turkish gilding style.

. A series of cartouches designed in a border outside the text is also common in Persian QMs. The marginal design is also found in *Kashmiri* QMs of GBL collection. In figure 7 the *sura* and the starting of a Part/*Juz* have the same sign of indicator.



Figure. 8 QMs Acc. No 4107, Persian style, scribed date 1591 (late 16th century).

In figure 8 the QMs has the combination of golden and blue with odd lines per page. A simple repeat design filled with foliage and interlaced motifs on the blue and golden background of frontispieces. As blue and golden background created the 3D effect in the overall design layout. The technique of chrysography is very common in QMs of GBL collection.



Figure. 9 Qur'an Acc. no. 6517 Turkish style, production date 1591 (16th century).

The figure 9 exhibits multicoloured borders with gilding. A text box is enclosed with three different borders. *Sura* name and its information are mentioned in outline (dark blue) golden cartouches.



QMS Acc. No. 4488, A 17th Century Qur'an Manuscript

Figure. 10 QMs Lahori, a combination of Persian and Turkish style.

The design of incipits (in Fig. 10 the *shamsa* medallion) is inspired from Persian and frontispieces is an example of Turkish work. This hybrid style is produced under the *Lahori* school of art under the patronage of Mughal era. Most illuminated or gilded QMs is associated to the Mughal empire. The original colour of paper is not used as the background of textbox but applied a *hina* or tea wash. The technique of *hina* or tea wash was very common at the end of the 16th century. The significance of this technique is to make the antique look of a paper or parchment.

2.4 *Kashmiri* Style

Kashmir region is vital to produce art and crafts through the ages. King Zain ul Abdain's period is considered a zenith period for art and craft and cultural exchange program as he exchanged the artist with Persia and Central Asia, for skill development and a quality production of art. His love for art encouraged the foreign skilled person to come to Kashmir and broaden the pallet of the *Kashmiri* artists.

Kashmir arose as a new centre for the Islamic art of the book during the 17th-18th century, the *kashmiri* fine manuscripts were mostly in bold *Naskh*. Scribes (most of them) were migrated to Lahore and prefer to work under the Mughal court, so they progressed their work and introduced the *Kashmiri* design layout to the artist of the core region. These scribes were admired and rewarded in this region. Muhammad Husain al *Kashmiri* known as "Zarin Qalam" (golden pen) migrated from his native region Kashmir just to serve the Mughal's court (Blair 2006).

S.P Verma points out some names of *Kashmiri* painters or illuminators who were associated with the king Akbar's court. The names of these painters or illuminators were Kamal *Kashmiri*, Ismail *Kashmiri*, Muhammad *Kashmiri*, Haider *Kashmiri* and Yaqub *Kashmiri* (Verma 1994).

Kashmiri style Qur'an manuscripts are also found in Central Asia due to the travelling merchants and Hajj pilgrims. Lavish floral ornamentation of these QMs enhanced the prosperity of central Asian 's noble libraries. GBL collection mentions the calligraphers, Habib Wali Badakhshi, Mulana Abdur Asaboor and Khalifa Ghulam Muhammad and Muhammad Saeed who were the best calligrapher from Kashmir. They were also associated to the Mughal court. The data of *Kashmiri* style is mentioned in table 12.

Table.12 Kashmiri Style Group A and B

QMs Acc. No B	Year	Calligrapher
13667	1494	
324	1591	
2390	1659	Habib Wali Badakhshi
1614	1688	
2583	1688	
5872	1688	
1646	1781	Mulana Abdur Asaboor
1998	1785	Khalifa Ghulam Muhammad
11595	1785	
12240	1785	
6519	1825	
760	1832	
6520	1882	
11563	Nil	
QMs Acc. No A	Year	Calligrapher
682	1591	Muhammad Saeed
825	1591	
310	1688	
12627	1688	
4041	1700	
1615	1434	
4114	1785	
5185	1785	
7936	1785	
10661	1785	

12092	1785
11564	Nil
Total	26

Table. 12 shows that the total *Kashmiri* style Qur'an manuscripts.

The QMs are 26 in number ($26/395 \times 100 = 6.56\%$) which are 6.56% of the total manuscripts of GBL collections. The layout of the *Kashmiri* style is unique. The combination of golden, brown, maroon and white on the blue surface is admirable. In figure 11 the QMs has the same design in frontispieces and last two illuminated pages. It is a revival of the old tradition of QMs. The text is divided into two parts as it is written in *Yaquti* style, the first, middle and last line of the Arabic text is written in a prominent text of *Thuluth*, *Muhaqqaq* and *Naskh Jali*. The explanation of translation is written inside of the crouches that designed the outer panel.

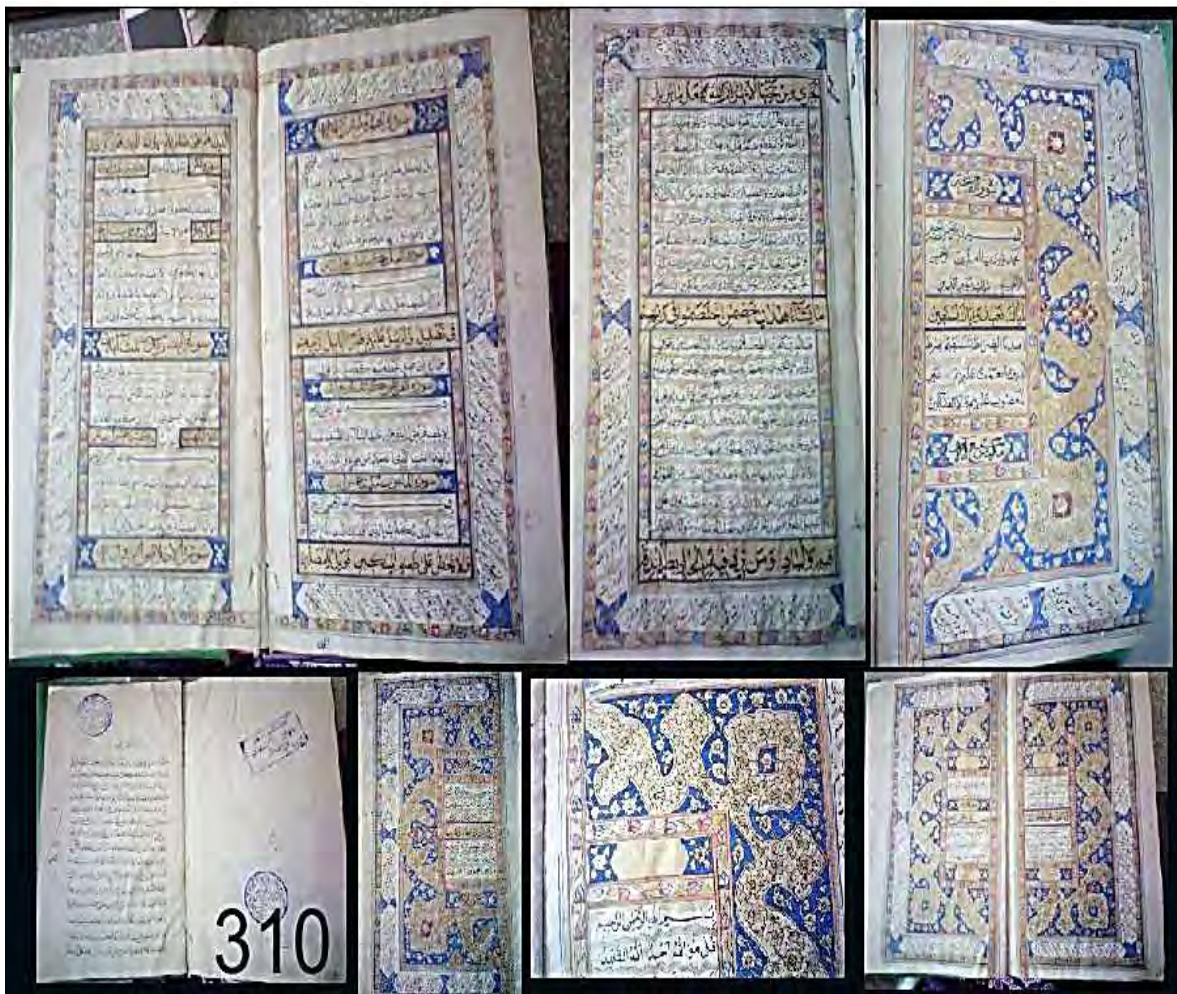


Figure. 11 QMs Acc. No.310. Belong to 17th century has clouds under the text.

Kashmiri manuscript of Qur'an mostly expresses the blue background, colourful blossom's border near the text, golden design filled with connected patterns of flowers highlighted with dark blue and black outline. Triangles fill with patterns are also found at the corner and middle of the margins. The significant layout of both front and last pages has four golden (filled with motifs) arches that make a parallelogram in the *Kashmiri* QMs.

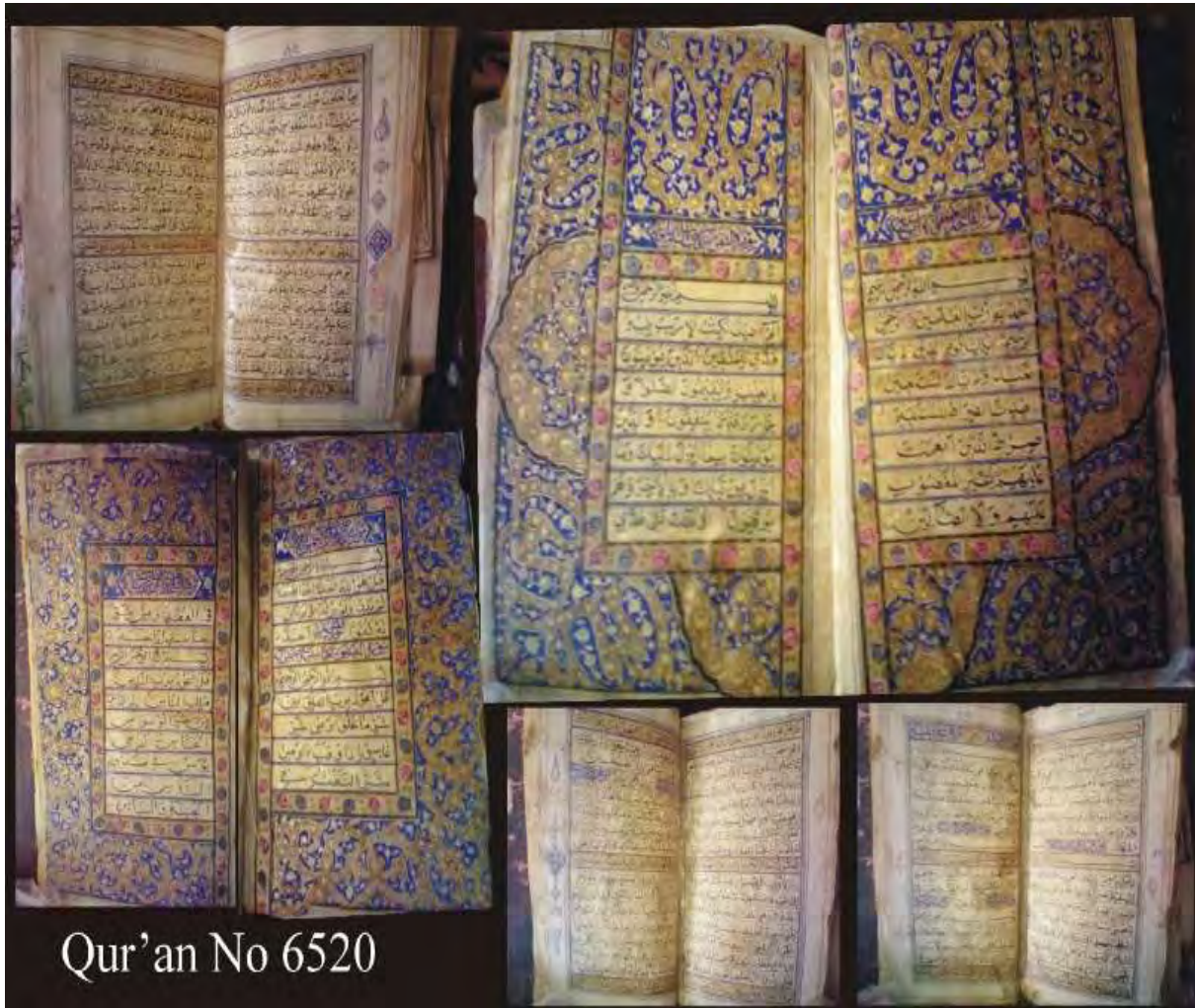


Figure. 12 QMs Acc. No is 6520. It is belonged to 1882 CE. Paper quality is delicate *Kashmiri* buff, the script style *Naskh* mature.

In figure 12 another style of *Kashmiri* QMs is observed in GBL collection. The overall parallelogram is distorted due to the paisely motifs with interlaced design at the top of the illuminated front page. In this QMs both front and last pages have the different orientation of the page layout. *Yaquti* style is also observed in this QMs.



Figure. 13 A 18th century *Kashmiri* QMS Acc. No. 1646.

A unique design layout is noticed in the GBL collection that belong to the *Kashmiri* school of art. The addition of black colour in illumination is the unique and a bold step in the history of Islamic art of the book. Only black outline for design or ruled frame is examined in the QMs of GBL collection or it is used as an ink for Arabic text, not for illumination. In this QMs blue colour is replaced by the black.

2.5 *Bihari/ Bahari* Style

Bihar has many names such as it is called *khatti-i-bahar* and *khati-i- Bahari* or *Bihari*. It is a desirable style for the Qur'an, prayers book calligraphy by the scribed of Sultanate Delhi and early Mughals. A mixer of *Naskh* script (Fig. 12 and 14) called *Bihari/Bahari* style of Arabic script progressed in Khilji era in the subcontinent. W.E Begley discusses the *Bihari* style as "A chief characteristic of *Bihari* style is the thick end terminal endings of certain extended letter" (Begley 1985). The *Bihari* either originated from the Persian word "*bahar*" meaning spring or Indian province "*Bihar*". There are many opinions regarding its name, but some scholars emphasised that it is not associated to the Indian region because it is beautifully written as the *gulzar* style of Arabic script and its name bihar/bahar due to its characteristics.

It is purely formed in the Indian land and practised in every region of the subcontinent. Some scholars indicate its origin directly from *kufic* or *kufic* style mixing with *Naskh* (Fig. 14 and 15). Another view, its origin is Turkistan and it rejects the view of a mixer of *kufic* and *Naskh*. There is no authentic view regarding its name and origin, all discussion is based on assumptions. A very old manuscript that is scribed by the calligrapher Ilyas bin Qazi Abu Bakar bin Nasirullah in 1277CE which belonged to the Thatha region (Iqbal 2007). This evidence indicates that most probably this style of Arabic script is fashioned in Muhammad Tughlaq 's period (1324-1351). It is frequently used by the scribes of 16th and 17th century. Abd-ull-Majeed Salik mentions that the *Bihari* is a transitional style of *kufic* to *Thuluth*. The identified calligraphers of GBL collection 's colophon of *Bihari* style is Hafiz Usman and Abd-ull-Nabi son of Haji Yar Muhammad.

Table. 13 *Bihari* Style Group A and B

QMs Acc. No B	Year	Calligrapher	Colophons
13790	1398	Nil	
320	1494	-	
2245	1494	-	
3587	1494	Hafiz Usman	✓
5331	1494	Nil	
2434	1591	-	
3073	1591	-	
3738	1591	-	
3849	1591	-	
4008	1591	-	
7310	1591	-	
7891	1591	-	
11596	1591	-	
13785	1591	-	
1616	1688	-	
3737	1688	-	
5671	1688	-	
12295	1688	-	

QMs Acc. No A	Year	Calligrapher	Colophons
5577	1971	-	
1598	1301	-	
1599	1398	-	
4170	1398	-	
824	1494	-	
1597	1494	-	
513	1605	-	
2698	1658	Abd-ull-Nabi son of Haji Yar Muhammad	✓
11559	1688	Nil	
Total	27		

Table. 13 shows the QMs of *Bihari* School of art.

Only two calligraphers are identified through colophon, the rest of the manuscript has no clue to find out the calligrapher's name and belonging place. Total manuscripts are 27 ($27/395 \times 100 = 6.83\%$). The result indicates that the contribution of *Bihari* QMs is very low in GBL collection.



Figure. 14 QMs Acc. No. 1599, total number of pages are 602, late 14th century Qur'an.

The excessive space is noticed in each word that is a significant feature of a *Bihari* style. Rubricated manuscript qualities are also found in this manuscript as the 1st and the middle line is written in red ink, paper type is delicate *Samarqandi* buff.



Figure. 15 QMs Acc. No is 3587, 15th century Qur'an. Calligrapher Hafiz Usman.

In figure 15, the QMs has a different *Bihari* style of writing which is inspired by the kufic style of writing or derive from the *kufic* style. Each word has limited space. Though *Bihari* style has a significant space between each word. The wedge shape of letters are the main features of the *Bihari* style of Arabic script. First, middle and last line is rubricated.



Figure. 16 QMs Acc. No. 513. The 17th century QMs, paper type delicate *Samarqandi* buff, first gilded text is noticed in this manuscript of the Qur'an.

The style of illumination (same colour combination and design) has resembled the figure 14. *Bihari* style has some consecutive changes, it may be regional or the choice of a scribe. 14th and 17th century manuscripts (Fig. 14 and 16) show the *Bihari* style mixed with *Naskh*, whereas 15th century manuscript of Qur'an indicating that the *Bihari* style inspired by the *kufic* style. Style of rubrication is same in all *Bihari* style of the manuscript.

3. Relative Chronology of QMs a Collection of GBL

There are many ways to classify the art of manuscript, but the more reliable way is chronological study and physical analysis of the QMs. It would help to study the history of an area and its trends, the unity of Islamic art and patronage of art under the ruling class.

QMs of GBL collection has a diversity and complexity due to multicultural influences and a long period of the 14th-20th century, that can be divided into three main ruling powers of subcontinent, Delhi Sultanate (14th century -16th century), Mughal (16th -19th century), British rule and partition (19th-20th century). These QMs progressed and changed many more significant shapes from initial to current.

The 10th century proved to be a revolutionary progressive century. At that time the famous centre for art and crafts were Iran and Khurasan. Design were marked with black/blue ink initially, then some more colours were added. After much rubbing of golden leaves, red shade is produced for manuscript which would add reddish shine that also reduced the intensity of golden colour. The interlaced and complicated patterns are also introduced (*Urdu Daerah Ma'arif Islamia*: 2005:189).

Different Muslim regions has illuminated QMs in different styles with prominent colours of red, golden and blue. These main colours are the significant palette of the 10th to 12th century. From 13th century onward a new era of material exploration, innovative design, decorative panels with different repeat (mirror, simple, brick, single and double dipper) of patterns, format changes from horizontal to vertical and preferably written in thirty parts. These manuscripts (from Iran and Iraq) were true competitors of that huge size of QMs written at the time of Mamluk Sultans (Egypt and Syria) for mosques (Blair 2006). The Islamic art of the book has some common features across the Muslim world such as extra decorated pages, frontispieces, incipits, marginal designs and extra pages at the end of manuscripts.

It was common practice that religious text, written in black ink on plain surface of the paper. Whereas, calligraphers from Deccan prefer to scribe the Qur'an on a coloured surface of the paper. They used red or golden surface for Arabic text and sometimes each word was written with different colour such as black, white, golden and blue (Blair 2006: 543).

Regional styles are also very important in the history of Islamic art of the book. Three major schools of art inspired the whole Muslim world such as Mamluk, Persian and Turkish. Indian Islamic art of the book took inspiration from the them, especially Persian and Turkish mixing with their own style.

Lahore school of art was proved to be a centre for the Persian, Turkish, Central Asian and hybrid style. It is quite difficult to distinguish them, when they have no written evidence inside them. Manuscripts can be distinguished due to physical analysis and chronological order.

This way of observation classifies the manuscripts regionally, artistic hand and hybrid styles adopted by the core region of the art. Three manuscripts from A group and eight from group B do not have their colophons/without any information regarding scribe and place.

Stratification in the social setup has an ability to stratify the artwork as well. The matter of affordable or unaffordable is present in every society due to the economic condition of a person. An artwork has different meaning to different person (as someone shows their prestige and some passionate love towards art) as Table 14B explains the chronology, classification and number of QMs as high illuminated, illuminated and simple.

The present study would guess the relative dating of the manuscripts with the help of physical analysis that identified the regional style, calligraphic style, paper type, judge the patterns, colours and overall page layout. Chronology of group A and B are shown in table 14A.

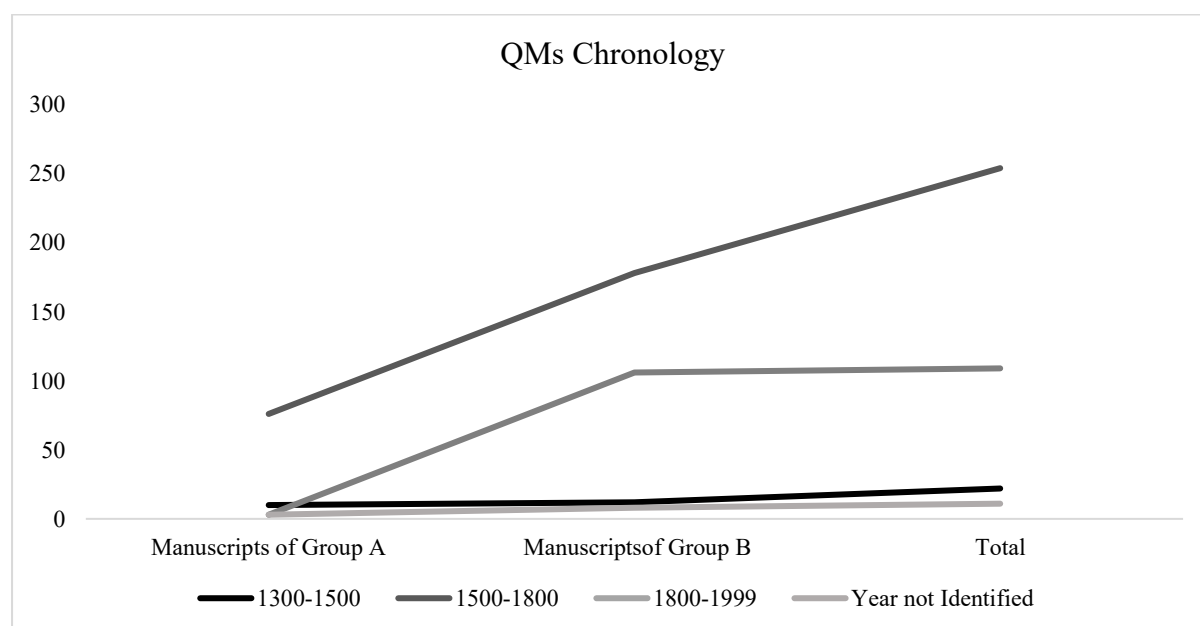
Table. 14A Chronological Order of Group A and B

Chronological Order Year	Manuscripts of Group A	Manuscripts of Group B	Total
1300-1500 Delhi Sultanate	9	13	22
1500-1799 Mughal Empire	75	180	255
1799-1999 British rule and Partition	3	105	108
Year not Identified	3	8	11

Table. 14A shows the chronological order of the group A and B.

High production rate is identified (both group A and B) in Mughal era. The main reason behind this is the patronage of a royal court and rich person who wish to have nice collections for their personal libraries in this era.

Regional and foreign scribes were assigned different jobs to produce illuminated QMs. The peaceful environment encouraged the scribes and calligraphers to engage themselves on different tasks of QMs production.



Graph 2 shows the different attributes of the lines. Green line grows upward that indicates the QMs production rate in Mughal era.

The graph 2 shows that very slow rate of production of QMs is examined in Delhi Sultanate. The presence of translated QMs is also noticed in the 14th -16th century that has very high production rate as compare to Mughal and British era.

Table. 14B Chronological order and Classification of Group A and B

Year	A			B		
	High Illuminated	Illuminated	Simple	High Illuminated	Illuminated	Simple
1300-1500	3	5	1	3	9	1
1500-1799	14	32	29	33	55	92
1799-1999	1	2	0	12	16	77

Table. 14B indicates the classification of the QMs.

In Delhi Sultanate, the ratio of high illuminated and simple QMs is same but varied in illuminated QMS. However, the high value of QMs is examined in group B in Mughal era and British¹ era. Over all attribute towards the production of simple QMs is very high in every era.

Relative chronology is created based on indicators mentioned below

1. Frontispieces

High decorated, borders filled with interlaced pattern, golden clouds, pointed repeat design outside the border or ruled frame and sura heading. These QMs can be identified with the help of *Bihari*, *Lahori*, *Kashmiri* and hybrid style. QMs inspired from Turkish layout, have interlaced motifs inside the panels, text box is enclosed with multiple borders or panels. Outer panel has a symmetrical pointed lines frame. Excessive use of golden colour with the combination of blue and green. One of the examples of Turkish style is *Yaquti* style.

¹ British era or rule consists of Sikh rule in Punjab (1799-1846) and many other provincial government.

Whereas Persian layout has a different impact on QMs. The mostly blue background has golden fore ground with white outline and motifs bejewelled the layout of the page. *Bihari* QMs has a unique feature such as frontispieces are decorated with simple repeat motifs either in foliage of geometric of red or blue with golden combination. *Lahori* and *Kashmiri* QMs are having some characteristics of *Bihari*, Persian and Turkish style.

2. Paper quality

Paper quality can help to identify the era of a QMs such as 14th century -16th century very few *Hirati*, *Hindi Hinai* is observed in QMs of GBL but *Samarqandi* paper is predominantly used for QMs of GBL (chapter 2 table 4-6). *Kashmiri* paper is introduced for QMs in late 15th and firmly used at the beginning of 16th century. Form 16th century till 18th century both *Samarqandi* and *Kashmiri* (with sub types) paper is used for QMs frequently. The colour of samarqandi and *Kashmiri* paper has buff or off white. However, the colour of other papers is white or light brown. In the 18th century, a new quality of paper is progressed for QMs but rare in GBL collection. *Sapahani* and English are also used for QMs but very few QMs has been reported in GBL collection.

3. Calligraphy

The formation of Arabic letters has transformed into different styles of Arabic script. Initially *Kufi* mixed with *Naskh* and *Thuluth* is find in these QMs. *Naskh*, *Thuluth*, *Bihari* and *Muhaqqaq* are the main Arabic script style that scribe preferred for QMs. *Naskh* has been modified by the Turkish and Persian scribes and the best example of Indian *Naskh* is called *Bihari* style that has maximum spaces between each word. *Bihari* style is more frequent in 14th -15th century (Table 1-2). It means the production of *Bihari* is fashioned in Sultanate of Delhi. The combination of letters also identified the style of script such as in Mamluk *Muhaqqaq* style

the balance of *lam* (ل) and *alif* (ا) was written in *al-warraqiyah* (.). However, in Indian *Naskh*, the *lam* (ل) and *alif* (ا) together in *al-Muhaqqaqah* (م) style.

4. Marginal and *aya* marks design

Pear, Sun/ *Shamsa*, Rounded pendent, elongated pointed pendent with foliage pattern are very famous for the marginal and *aya* marks. A pear or paisley motif and *shamsa* are famous in *Bihari* QMs.

Initially (14th -16th century) these signs were very intricated design, gradually simplified and then revived in 18th -20th century QMs. QMs of GBL collection indicates the results that *aya* indicator were rosette and star sign in 15th to 16th century and simple golden or coloured round is used frequently in 17th century onward.

5. Colour palette

Blue and golden colour has a monopoly for the background and foreground illumination of a QMs. The QMs of GBL is divided into three types of high illuminated, illuminated and simple. The criteria of high illuminated is the excessive use of blue colour, gilding and multicoloured palette.

Illuminated QMs has less gilding and more use of red and blue colour and simple QMs has only one or two colours decoration. Gilding technique is used for high illuminated and illuminated QMs whereas rubrication is associated to the *Bihari*, illuminated and simple QMs. Less illuminated QMs has yellow, brown, blue and values (light to dark) of red.

Indicators are 1/ Frontispieces ,2/ Paper quality, 3/ Calligraphy, 4/ Marginal and *Aya* marks, 5/ Colour palette, 6/ Influence.

Table. 15 Indictors for Relative Chronology

QMs A Acc. No	1	2	3	4	5	6
11564	✓	Sapahani	<i>Naskh</i>	A series of Pendant	Blue Brown Red	<i>Kashmiri</i> QMs 17 th -20 th
12913	✓	Brown	<i>Naskh</i> and <i>Nasta'liq</i>	Rounded Pendant	Blue Yellow Maroon	<i>Lahori</i> <i>Kashmiri</i>
13256	X	Yellow	<i>Naskh</i> and <i>Nasta'liq</i>	X	Red	X
QMs B Acc. No	1	2	3	4	5	6
11528	X	Buff	<i>Naskh</i>	X	Red	X
13583	✓	Yellow/Buff	<i>Naskh</i>	Arabic Alphabet	Deep Blue Brown	<i>Lahori</i>
11563	✓	White delicate	<i>Naskh</i>	Arabic Alphabet	Blue Brown Red	<i>Lahori</i> <i>Kashmiri</i>
12944	X	Brown Paper	<i>Kufi Naskh</i>	Arabic Alphabet	Red Yellow	<i>Bihari</i>
12558	✓	Brown Paper	<i>Naskh</i> Beautiful	Arabic Alphabet	Blue Brown	<i>Lahori</i> Persian and Turkish
11597	✓	Buff Paper	<i>Naskh</i> Beautiful	Arabic Alphabet	Blue Yellow	<i>Lahori</i>
13683	X	Brown Paper	<i>Naskh</i>	Arabic Alphabet	Red	X
11643	✓	Thick Buff	<i>Naskh</i> Beautiful	Shamsa	Golden Blue	<i>Lahori</i>

Table. 15 mentions the features of QMs

3.1 Physical Analysis and Relative Chronology of Group A

Group A has three QMs to be examined to guess the belonging period. In figure 17 the QMs has seventeen lines per page, nasta'liq interlinear followed by Arabic text. Script style is *Naskh*,

Paper type *saphani* and total pages are 416. QMs Acc.No.11564 belongs to the *Kashmiri* school of Art.

Figure no 11, a QMs is identical to figure no 17 due to its design layout of the frontispieces. Both manuscripts have the *Naskh* style of Arabic script with same colour pellet. But the other pages of the QMs Acc. No. 310 is designed in *Yaquti* style and translation and explanation is enclosed in cartouches as seen in *Lahori* style designed frame near the Arabic text box.

Manuscript 310 is scribed in (1688) 17th century. Its physical features indicate that it is produced as hybrid styles and belong to the *Lahori* school of art. Another manuscript accession no 11565, year of production 1855, calligrapher Baba Haider and total pages are 708, has the same paper quality as found in QMs Acc.No.11564 (Fig. 17) called *Sapahani* (meaning soldier) paper. May be its name carved either this paper used/ brought by the soldiers or made this paper.

There is no evidence found regarding the paper's origin and how it is called *sapahani*. The study only made some speculation about the date of this manuscript 11564 by analysis of manuscript 11565 due to the usage of same quality paper. This evidence indicates that maybe this manuscript 11564 is also produced in the 19th century.

Another evidence is patterns and colour pallet, these are common in the 17th to 18th century of the *Kashmiri* style Qur'an manuscripts and manuscripts produced under the *Lahori* school of art. First evidence is more generous that, it is produced in Lahore or regions near by the Lahore, in *Kashmiri* style (colour pallet and design) production year is a 19th century because *sapahani* paper is not common paper. It is also not as much good as *Kashmiri*, *Samarqadi* and *Hirati* paper So less expensive material (less gilding), low quality work is done in the 18th to 19th centuries due to the unstable political and social setup of Indian regions, introduction of press and decline of patronage.



Figure. 17 Qur'an Acc. No 11564, blue background. floral cartouches (mentioned the total *aya* of *sura*) at the bottom.



Figure. 18 QMs Acc. No. 12913. Eleven lines per page, translation presented under the Arabic text and commentary placed in the margins on oblique style. Total pages are 968 and production year is to be identified.

In figure 18, the QMs has the combine features of *Kashmiri* and *Lahori* school of art. Another clue is colour, espically yellow colour used instead of golden after the decline of Mughal era.

Application of colour also indicates that it is illuminated by the unskilled person or may be cheap water based colour applied to this manuscript. Due to its casual presentation and less quality or light paper, it belongs either to the 18th century or 19th century.



Figure. 19 QMs Acc. No. 13256. Manuscript have some pages missing. This manuscript's script style is *Naskh* in black ink and Persian translation scribed in *Nasta'liq*.

In figure 19 the QMs is without frontispieces and pages from the back side. In appearance, it is very simple and casual without any marginal illumination and other decoration. Only ruled frames are present that have enclosed the text box.

Translation is written in *Nasta'liq* under the Arabic text and patches of explanation is designed in the margins. Text box has 13 lines Arabic text per page. Paper quality is brown paper that is considered not as good for QMs. This locally produced paper is used in 18th century. This manuscript may be scribed in the 18th century due to paper quality and simplicity. In 18th century onward handmade paper reduced its value, quality and not made skilfully as made before. After the decline of Mughal and Sikh ruling ship, many more artisan and skilled person

dispersed and limited their activities towards the art of the book or replaced this occupation with some other profession for survival.

3.2 Physical Analysis and Relative Chronology of Group B

The QMs (Fig. 20) written in *Naskh* mixed with *Thuluth* and paper quality is buff. It is resembling to the QMs Acc. No. 3888 (English buff paper, production date is 1901). The figure 20 shows the pages of the QMs that presented the two *suras*, *Ar-Rahman* and *Al-Waqiya*. The QMs is a collection of selected *suras* called *Panj Sura*.



Figure. 20 QMs Acc. No. 11528, paper quality is English buff.

It is difficult to answer the question that, when, where and who introduced *the Panj sura* first. May be these prayer books are scribed due to certain reasons such as daily reciting of selected *suras* by the religious scholar, the travellers or students of religious study. It is easy to carry the *Panj sura* instead of the whole Qur'an.

The preferred (bold and clear) script style for these prayer books (of GBL collection) are *Naskh*, *Thuluth*, *Bihari* and *Nasta'liq*. Mostly the *Panj sura* consists of the selected *suras* of the Qur'an

in different numbers such as, 5, 7 and 10. But commonly it is called *panj sura* not seven or ten *sura*. These prayer books in GBL collection are found without illumination, translation and mostly belong to 18th-20th century. Its mean these prayer books are more produced in these centuries.



Figure.21 QMs Acc. No 11563, written in *Naskh* and paper quality is white delicate paper.

This manuscript is designed in *Kashmiri* style but produced in Lahore. *Kashmiri* originated Qur'an manuscripts are more illuminated and gilded. However, manuscripts produced in Lahore from 18th to 20th century, are illuminated with multi colours such as yellow, pale brown and dark skin colour instead of golden.



Figure 22 QMs Acc. No. 11643. It is Indo- Persian hybrid style, produced in Lahore. Year to be identified. It is written in beautiful *Naskh*. Thick buff paper is used for this manuscript.

(Fig. 22) also written on buff paper. Starting page of a juz has mostly 10 lines whereas twelve lines for other pages. The QMs' s *aya* indicators suggested that it may be a 17th century

manuscript. *Aya* indicator golden circle with four blue dots and the red cross is fashioned in late 16th CE to the beginning of the 17th century. Marginal design is also simple *shamsa* such as golden rounds with blue outline and dots. *Sura* heading, in golden colour is the attribute of the 17th century. Maybe it is produced in the 18th or 19th century with similar features of the 17th century manuscript. Overall illumination style is inspired from Persian Qur'an manuscripts. The evidences of Persian influence are noted in Mughal era (16th to 17th CE).



Figure 23 QMs Acc. No, 12944, script style is *Bihari* such as kufic. Simple layout of the page has 15 lines per page. Word Allah is rubricated in all pages of the manuscripts.

This manuscript (Fig. 23) resembles to manuscript 3587 (Fig. 15) in many aspects. In these manuscripts, the word Allah is specifically highlighted with different colour. In manuscript Acc. No 12944 (Fig. 23), the word Allah is rubricated (red ink). Similarly, the word Allah is highlighted with other colours (golden and blue) in certain other manuscripts of GBL. The feature of highlighted word of Allah is characteristically identified in the manuscripts of Qur'an with *Bihari style*. But 15th to 17th century *Bihari* manuscripts of Qur'ans are more illuminated with multiple colours. And their *aya* indicators are mostly designed with gilded flower such as 5, 7, 8 or 12 dotted rosettes. Marginal designs are also very prominent. In the case of QMs (Fig. 23), it is noticed in the present study that it is very simple QMs and there is application of yellow colour instead of golden which indicates that it would be produced either in 18th or 19th

century. In the simple QMs of GBL collection, it is noticed that the golden colour is not used by the end of 17th century. QMs (Fig. 23) has a very casual and monochromatic (only in red) ruled frame that bounded the text box.



Figure. 24 Qur'an Acc.No.13583, script style is *Naskh*, fifteen lines per page. Blue background and light brown design filled interlaced patterns, indicating that it is belong to the *Lahori* school of Art.

The overall layout of the QMs (Fig. 24) is casual and simple belongs to *Lahori* school of Art. Colour palette is very simple (Blue and brown). The water-based colour application is not very fine and delicate. Red diacritical marks are shown in the manuscripts and simple small dots of *aya* indicators. Ruled frames are formed in red and yellow instead of other expensive colours. It is may be one of the 18th century manuscript due to its simplicity and rough designing. The head piece of this manuscript (Fig. 24) shows the mountain style (crown) pattern which is also a feature of QMs of Turkish/Ottoman style belonging to the 18-19th century.

The panel of this manuscript (Fig. 24) is golden and blue which indicates Persian influence. Freer and Sackler Museum has a collection of the Islamic QMs which reveals that one of manuscript has similar style as that of manuscript Ace. No. 13583 (Fig. 24) but it has some regional modification in *aya* marks, mountain/crown style of headpiece which is filled with floral motifs and lace work (Museum code F1906.304, Turkish style of 18-19th century).

In figure 25, the frontispieces of QMs are resembled to the QMs Acc.No.13783 (production date is 1785). The features of QMs Acc.No.13783 are that it has eight lines in frontispieces (along with title of *sura*) and 11 lines for last pages.



Figure. 25 QMs Acc. No, 12558, paper quality is brown, without colophon so date to be identified.

However (Fig. 25) QMs has seven lines in frontispieces and eleven lines for last pages. It is *Lahori* hybrid style (a combination of Turkish and Persian) Another manuscript 14264 (Fig. 26) has the same design pattern, produced in 17th century.



Figure. 26 QMs Acc. No.14264, production date 1693 (17th century) and calligrapher is Noor Muhammad. Paper is *Khan Balghi*.

It may help to identify the period of QMs (Fig. 25). Above mentioned resemblance with other QMs indicates that it would be produced in late 17th or at the beginning of the 18th century. Because this design pattern is very common in *Lahori* school of arts in 17th to 18th century. The QMs shown in figure 27 is another example of casual design of layout, dark blue and light

yellow combination, each line of Arabic text is written between the red lines. Each line has a gap which may be a vacant space for translation as seen in the QMs *Kashmiri* style. The pattern of leaf is a common motif in 17th to 18th *Lahori* style.



Figure. 27 QMs Acc. No. 11597, paper is buff, beautiful *Naskh*, total pages 1338. Nine lines per page, year to be identified.

Text box has a lot of spaces at the marginal side. Only two coloured ruled frame has bonuded the text box. Arabic alphabtics are written as marginal indicators. A small red dot for aya indicator. All mentioned feature of QMs (Fig. 27) is the attribute of 18th -19th century manuscript of Qur'an.



Figure. 28 QMs Acc. No. 13683. Paper brown, vertical format, calligraphy *Naskh*, total page is 150, year to be identified.

The QMs (in Fig. 28) script style is *Naskh*, as casual as it is written by an unskilled calligrapher. The *aya* indicators are found in red colour. Each line has gaps, but the words in the line are

very congested. Selected diacritical marks are shown in red. *Sura* heading is presented as informal way (without any cartouches or multicoloured band). Marginal signs are shown without decoration or gilding. The casual appearance and simplicity of QMs indicates that, it is either belong to the 19th century or 20th century.

This manuscript (Fig. 28) has received fifteen lines per page which is a usual feature of 13-14th century. The Freer and Sackler Museum's collection of Islamic Manuscripts has a QMs (Museum code F1930.92, a Persian style of QMs of 13th century) which has fifteen lines per page, but it is designed without marginal ruled frames and rubrication. Only *aya* indicators were present in a prominent way.

The simplicity of the QMs shown in figure 28 is one of the features of the 18-20th century QMs of GBL collection which reveals diacritical marks in red, rubricated *sura* heading and marginal signs in Arabic alphabetic.

Conclusion

Art of the book is famous in all religious communities. It is an old fashion to present the religious text in a prominent way. This visual mixed text is in the form of foliage, combinations of different colours and calligraphic fonts and style, that please the techniques of illumination. The Arabic text of the Qur'an has been presented in different formats and styles. This evolution in art and design that contribute in Qur'an manuscripts shows the deep involvements and interest towards sacred text. Skilled persons and target market set the goals for different styles. It also carved the way for its progress. By the time these endeavours generate the different regional and cultural schools of art of the book.

GBL collection of Qur'an manuscripts presents a true picture of the multicultural land of the Pakistan. A variety of colours, forms, patterns, design, size and paper quality is used in these manuscripts of the Qur'an. Many more industries such as ink, colour making, reed pen, paper making, binding and leather, are progressing under the support of ruling-ship. These industries played a vital role in trade, export and economic stability of the region as well as, to fulfil the demand of the scribe.

This study is based on a collection of Qur'an manuscripts. So, the data is not a selected or classified in nature. After physical examination the data is classified into chronological and typological groups. Furthermore, the study of manuscript is conducted under the framework of manuscriptology.

This study adopted many techniques of manuscriptology for the analysis of Qur'an manuscripts from the collection of GBL Islamabad. The typology of Qur'an manuscript, paper quality, page layout (inner and outer size of the page and margins) and binding of manuscripts are evaluated by physical analysis. The typology results show that out of 396 Qur'an manuscripts, 91

manuscripts have translation and commentary denoted as “A” group/category and 305 manuscripts are without translation and commentary denoted as “B” group/ category. Both groups have different types of papers. But most favourite papers are *Kashmiri* and *samarqandi*. This study identified the quality of paper and analysed the difference of both papers with the help of physical analysis. Both papers are durable and the best medium for calligraphy. *Kashmiri* paper has a texture of the hemp fiber, whereas, the *samarqandi* has cotton fiber. Both papers have the best quality, though their making techniques are different, and these papers are made of different materials. After analysis of group A and B, it is noted that in the majority of the Qur’an manuscripts of group A *Kashmiri* paper was utilized while the group B shows more frequent use of *samarqandi* paper. The possible reasons for adoption of *Kashmiri* paper for group A manuscripts (Qur’anic Arabic text with translation) are that the *Kashmiri* paper are large in size with more absorbing power towards ink and colours along with more durability and light weight.

With the passage of time, the quality of paper is enhanced. The number of pages in a manuscript are associated with the quality of papers. Big size manuscript of Qur’ans has prominent font size, more margins and more numbers of pages. Gradually the alignment of the page is modified and presented in small font with less margin and this change may be attributed to the cost of papers. Because the quality papers were very expensive, and the calligraphers could not afford it. The other possible causative factors for this change may be loss of patronage or alteration in the behaviour of consumers. It is also identified that quality paper is used in the Qur’anic manuscripts.

Physical analysis of these manuscripts identifies the techniques and material of binding, leather, fabric, paper and paste board. Islamic book binding is an amalgamation of different cultural elements. Traditions had become strong and revised by the upcoming artist/generation’s endeavours. Acceptable changes occur in the physical appearance of the

manuscripts in response to the new materials and techniques. Islamic book binding has an additional feature of flap which distinguished from the non-Islamic style of binding.

For better understanding, the study adopted the technique of chronology. In this process, the study identifies the consecutive changes/ modification of lay out of the manuscripts of the Qur'an. These Qur'an manuscripts are from 14th to 20th century (data belong to the Sultanate of Delhi, Mughal and British era). But it is also noticed that within the century, along with the similarities, different work is done by the artists in different regions of Pakistan and India.

Another manuscriptology technique is palaeography which is a study of writing style and letter formation. This technique helps the investigator to observe the letter formation, transformation and attribute. Arabic script is written in many more styles. These styles are adopted or created for the better understanding of the Arabic language for the non-Arabic peoples. Arabic scripts have many developmental forms and names such as *Kufic*, *Hijazi*, Cursive, Broken cursive, *Maghrabi*, *Bahari/Bihari*, Turkistani *Bihari* then finally recognized as *Naskh*. *Naskh* style generates more forms, *Thuluth*, *Muhaqqaq*, *Rihani*, *Riq'a*, *Ta'liq* and *Nasta'liq*. Regional (*Hijazi*, *Makki*, *Madani*, *Kufi*, *Herati*, *Baghdadi*, *Khurasani*, *Trukistani*, *Bihari*, *Delhi*, *Decani*, *Lahori*, *Irani*, *Kashmiri*, bold, delicate, beautiful and mature etc.) and artistic or calligraphers style (Ibn Muqla, Ibn Al Bawwab, *Yaquti*, Hamadullah, Hafiz Uthman, Mamluk, Safavid and Mughal etc.) developed several *Naskh*, *Thuluth*, *Muhaqqaq*, *Rihani*, *Riq'a*, *Ta'liq* and *Nasta'liq* styles. These styles either associated with the region, calligraphers or ruling class. Three prominent styles of Arabic scripts have emerged in the history of the subcontinent, Delhi imperial style (a fusion of *Kufic* and *Thuluth*), Bengal and provincial style (also called hybrid style). These styles of Qur'an manuscripts can be identified by the calligraphic expression of scribe and illumination (different school of art such as, Mamluk, Maghrabi, Persian, Turkish and Indo-Pak) till the 15th century. After that the hybrid style is fashioned and developed in many core areas of manuscript production. This study also indicate that the amalgamation of

different school of art and regional styles are found in the Qur'an manuscript in GBL collection. Many art forms and techniques of illumination are adopted from the neighbouring alliance. It is also noticed that illumination styles have been modified and simplified to some extent after the medieval period.

Illuminated Qur'an manuscripts of group A and B has different attributes towards the same century. Results indicate that group A has less illuminated manuscripts in 1600-1899, however group B has many more decorative styles and sizes of manuscripts. The difference in result is occurring because the number of group A (91 manuscripts) is less than the group B (305 manuscripts) that's why the comparison is not strong. Another possible reason is that the group A manuscripts has translation and commentary so there is no space for more decoration.

The elements of illuminations along with calligraphic styles are colour and shapes/patterns. Qur'an manuscripts are designed with *sura* heading (with different colours and calligraphy), illuminated (more or less) both opening pages and some-time last two pages as well, marginal design, *aya* indicators and coloured ruled frames. Red, blue and golden colours are prominent in these Qur'an manuscripts of GBL. The results of the study show that all the Qur'an manuscripts (group A and B) *sura* heading have prominent red colour incorporate with blue and golden. Opening illuminated pages are found as high illuminated, illuminated and less illuminated or simple. High illuminated pages are decorated with different patterns, architectural form such as dome, columns, arches and door, vegetal design with simple and mirror repeat. Number of specimens of high illuminated manuscripts are more in group B. A significant number of manuscripts from the GBL collection have illuminated pages in front and back (both group A and B). A variety of *aya* marks are existing in the Qur'an manuscript collection of GBL. Before the 15th century, mostly these marks are in the shape of flowers, star and different angled shapes, gradually transformed into a simple rounded shape. In 17th to 18th century, when some school of art took initiative to revive the ancient style of Qur'an

manuscripts than they used these complicated *aya* marks in prominent *suras* or first, middle and last part of the Qur'an. Sometimes they used more than one style of *aya* marks in one manuscript. This study divided the manuscripts according to the social setup and chronological order from 14th century till 20th century. The categories of High illuminated, illuminated and simple manuscripts are noticed in each century with variation in their numbers. This investigation revealed that there is no harmony in the numbers of Qur'an manuscripts within the groups and chronological order. Overall the production of simple manuscripts is more than the illuminated and high illuminated manuscripts. Figures of high illuminated and illuminated manuscripts are fluctuating (from low to high numbers) in each century. While simple manuscripts of the Qur'an are less in numbers in the beginning but gradually increased in number in later centuries. Many factors may be attributed to this variation in the number of simple manuscripts which include changes in fashion/ trend, lack of quality work by the artist, foreign influence, political and social instability or art work is not patronized.

The data of the Qur'an manuscripts of GBL collection is a unique which is not related to same century, artist/ scribe, and region of Pakistan. Regional and foreign influences make it vibrant and beautiful. History of land of Pakistan indicates that many more invaders used the door of Pakistan towards Indian land. They established and flourish the Lahore city as a core region of all activities. Literary and artistic activities in Lahore attract the artist community to exchange their skills with foreign artists. This fusion of art is also seen in the GBL illuminated Qur'an collection. This collection identified the *Lahori* style, *Yaquti* and its hybrid type (*Lahori* mixed with Persian, Turkish and *Kashmiri*), *Kashmiri* style and *Bihari* style. With the help of physical analysis of regional, hybrid styles and chronological study of manuscripts carved the way for the relative chronology of 11 Qur'an manuscripts. Finding is done after analysing the page layout, paper quality, design, patterns, illumination style, calligraphic style, colours, marginal and *aya* indicators. Almost these manuscripts belong to the 15th to 20th century. Mostly, these

manuscripts are normal in quality and simple in nature. The colour palette of these manuscripts (11 QMs) is limited yellow colour is used instead of golden colour.

Everett Rogers theory “Diffusion of Innovations Theory” is adopted as theoretical framework of the present study. According to this theory, an individual can accept or reject after adoption. In the present study, the classification of the Qur’anic manuscripts and the chronological comparative analysis reveal different moods in different times. The high rate of adoption towards simple Qur’anic manuscript is seen from 18th to 20th century while for the illuminated Qur’anic manuscripts, the adoption rate was high in the 17th to 18th century. There was low adoption rate for the simple manuscripts of Qur’an during the period of 14th to 16th century.

The present study bridges the knowledge gaps regarding the Qur’anic manuscripts of the Subcontinent, and it may generate the interest among the other researchers of manuscriptology for the exploration of the ancient wisdom of the subcontinent.

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GLOSSARY

Arabesque	An ornamental design consisting of intertwined flowing lines, originally found in Arabic or Moorish decoration.
Bejewelled	Cover or adorn with jewels
Bihari script	North Indian Script called <i>bihari</i> script
Codicology	Study of manuscript and their interrelationships.
Calligraphy	An art of handwriting or lettering with pen or brush.
Embellishment	A decorative detail or feature added to something to make it more attractive.
Filigree	Ornamental work of fine (gold, silver) wire formed into delicate tracery.
Foliage	Plant leaves
Gilding	The process of applying gold leaf or gold paint.
Intaglio	A design incised or engraved
Juz	Part
Illumination	Lighting /light, decorated with gold leaf and silver.
Miniature	A thing that is much smaller in appearance, especially a small replica or model.
Manuscript	An author's handwritten or typed text that has not yet been published.
Manuscriptology	Study of manuscript
Medallion	A piece of jewellery in a shape of medal.
Mehrab	Arch

Opaque	Not transparent, blurred, not able to be seen through
Papyrus	A material prepared in ancient Egypt from the pithy stem of a water plant, used in sheets throughout the ancient Mediterranean world for writing or painting.
Papier Mache	A crafting technique which uses pieces of papers
Pattern	A repeated decorated design, motif
Paleography	The study of ancient writing systems and the deciphering and dating of the historical manuscripts.
Rubric	Heading or writing at the top of the page in a prominent way.
Symmetry	Both sides are equally or balanced
Sarloh	Headpiece, top decorated part of a page
Sheen	shine, glow
Vellum	Fine parchment made originally from the skin of a calf.

INDEX

Record of Data (Page Layout)

Quran serial no	<input style="width: 100%;" type="text"/>
Qur'an record No (GBL)	<input style="width: 100%;" type="text"/>
Size: Large <input type="checkbox"/>	Medium <input type="checkbox"/>
	Small <input type="checkbox"/>
Format:	Vertical <input type="checkbox"/>
	Other <input type="text"/>
Page layout of first two pages	
Page with margins	<input type="checkbox"/>
Number of ruled frames	<input type="checkbox"/>
Colours used for frames	<input type="checkbox"/>
Page layout of first last two pages	
Page with margins	<input type="checkbox"/>
Number of ruled frames	<input type="checkbox"/>
Colours used for frames	<input type="checkbox"/>
Colour used for first two pages	
Prominent colour is Blue	<input type="checkbox"/>
Prominent colour is Golden	<input type="checkbox"/>
Other prominent colour is	<input style="width: 100%;" type="text"/>
Colour used for Last two pages	
Prominent colour is Blue	<input type="checkbox"/>
Prominent colour is Golden	<input type="checkbox"/>
Other prominent colour is	<input style="width: 100%;" type="text"/>
Design of two first pages	<input type="checkbox"/>

Geometric design

Foliage design

Both

Design of two Last pages

Geometric design

Foliage design

Both

First two pages has text lines

Even number

Odd number

Last two pages has text lines

Even number of

Odd number of

Sura headings

Illuminated

Multicoloured

Mono coloured

Simple

Sura/other indicators

Illuminated

Multicoloured

Mono coloured

Simple

Style of Indicators

Star

Pear shaped

Circular

Square

Rectangular

Filled with foliage

Colours of Indicator

Golden

Blue

Red

Record of Data (Material)

Qur'an serial no

Qur'an record No (GBL)

Binding

Without Binding

Ink used for text

Black

Red

Both

Other

Paper Quality

Thick

Thin

Colour used for illumination

Blue

Golden

Other

Colour used for foliage design

Blue

Golden

Green

Red

Yellow	<input type="checkbox"/>
Pink	<input type="checkbox"/>
Orange	<input type="checkbox"/>
Maroon	<input type="checkbox"/>
Orange	<input type="checkbox"/>
Other	<input type="checkbox"/>

Colour used for Geometric design

Blue	<input type="checkbox"/>
Golden	<input type="checkbox"/>
Green	<input type="checkbox"/>
Red	<input type="checkbox"/>
Yellow	<input type="checkbox"/>
Pink	<input type="checkbox"/>
Orange	<input type="checkbox"/>
Maroon	<input type="checkbox"/>
Black	<input type="checkbox"/>
Other	<input type="checkbox"/>

Binding style

Illuminated	<input type="checkbox"/>
Multicoloured	<input type="checkbox"/>
Mono coloured	<input type="checkbox"/>
Simple	<input type="checkbox"/>

Binding Material

Leather

Pasteboard

Other

Glue source

Animal

Botanical

Other

Binding Colour

Record of Data (Paper type, Chronology)

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Delicate yellow <i>Kashmiri</i>	<input type="checkbox"/>
English Buff	<input type="checkbox"/>
<i>Kashmiri</i> Buff	<input type="checkbox"/>
<i>Sapahani</i>	<input type="checkbox"/>
Thick brown <i>Kashmiri</i>	<input type="checkbox"/>
Thick Buff	<input type="checkbox"/>
Thick <i>Kashmiri</i>	<input type="checkbox"/>
Thick <i>Kashmiri</i> Buff	<input type="checkbox"/>
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Yellow	<input type="checkbox"/>
<i>Samarqandi</i> Buff	<input type="checkbox"/>
Brown	<input type="checkbox"/>
	<input type="checkbox"/>

Delicate dark yellow Hirati

Delicate dark yellow

Samarqandi

Delicate English Buff

Delicate *Kashmiri*

Delicate *Kashmiri* Buff

Inner Page Size

Outer Page Size

Chronological order

1000-1099

1100-1199

1200-1299

1300-1399

1400-1499

1500-1599

1600-1699

1700-1799

1800-1899

1900-1999

Complete and missing pages of QMs

Yes

N

Record of Data (Calligraphy and Calligrapher)

Quran serial no

Qur'an record No (GBL)

Calligraphy type

Naskh

Naskh beautiful

Naskh mature

Naskh and *Thuluth*

Naskh Kufi

Naskh Jali

Thick Buff

Naskh Turkistani

Naskh Turkistani Bihar

Naskh Yaqooti

Naskh Turkistani Beautiful

Thuluth Beautiful

Thuluth Mature

Thuluth Turkistan

Thuluth Kurasani

Thuluth

Bihar Jali

Bihar

Turkistani Bihar

Naskh and Nasta'liq

Nasta'liq

Kufi

Muhaqqaq Amikhta

Number of Calligrapher identified

1000-1099

1100-1199

1200-1299

1300-1399

1400-1499

1500-1599

1600-1699

1700-1799

1800-1899

1900-1999

Total QMs of Group

A

B