

DATED ARMENIAN MANUSCRIPTS AS A STATISTICAL TOOL
FOR ARMENIAN HISTORY

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A question which always disturbs historians writing about social or economic conditions of earlier centuries is whether generalizations or hypotheses about relative prosperity or decline in a given period are in fact correct. This is especially true when the historical sources are either few or do not supply more than a superficial catalogue of wars, famines, or the progress of great men. Armenian historians often face this problem. For long periods, such as the sixteenth century, no histories in Armenian exist at all.

Independent corroboration of hypotheses derived from analyzing primary sources, even when relatively rich in details, is something all scholars long for. One of the classic ways of confirming notions derived from texts is the qualitative and quantitative measure of the material culture produced in that era. In the Armenian case this would include principally church construction and manuscript illumination. Almost no attention has been given to using the material remains of Armenian culture statistically, quite apart from their value as artistic monuments, as independent verification of textual testimony about good times and bad, victories and defeats.

A decade ago, during the initial stages of the compilation of the Index of Armenian Art, it became clear that mere visual inspection of the number of cards arranged chronologically in the files could furnish a reasonably accurate idea of the relative production of miniature painting at any given period.¹ A glance at the file arranged iconographically would demonstrate the preference for one image over another during the course of centuries.

T. Samuelian & M. Stone, eds. Medieval Armenian Culture. (University of Pennsylvania Armenian Texts and Studies 6). Chico, CA: Scholars Press, 1983. pp. 425 to 439.

Gradually the data base increased to over 10,000 individually indexed items (illuminations). It became clear that, independent of strictly artistic considerations, this base might serve as a mode of statistical evidence.

In 1980, while the author was engaged in preparing a chapter on the historiographically obscure fifteenth and sixteenth centuries for the new collective *Histoire des Armeniens*,² it was decided to utilize the material already collected in the Index of Armenian Art. It was augmented to include data from all Armenian manuscripts and not just those with miniatures or illuminations. It seemed likely that by simply plotting manuscript production chronologically, graphic results would visually and instantly confirm or deny the validity of historical impressions of the period. The results of this statistical analysis supported in a striking way many of the conclusions reached about the history of Armenia from the fall of the Cilician kingdom in 1375 to the deportations of Shah Abbas in 1604. They were partially presented in the new *Histoire*.³

In the following pages the methodology developed will be presented in some detail accompanied by (1) an indication of the limitations of the work already achieved, (2) the effort necessary to carry out and complete the project, and (3) refinements of the system needed to make the results more credible. It is hoped that others will engage in this work with additions, corrections, and suggestions for improvement. The premises and the resources were as follows.

It is usually said that some 25,000 Armenian manuscripts have survived to our day. The majority of them are in Armenian repositories, either church or state controlled. Thanks to the aggressive work of the 1960s undertaken by the Matenadaran in Erevan in issuing a two volume summary catalogue⁴ of the largest single collection of Armenian manuscripts, and the publication program of the Calouste Gulbenkian Foundation toward the completion and printing of catalogues of the major collections in the diaspora,⁵ the vast majority, perhaps 90 percent or more, of all Armenian manuscripts have been identified and recorded according to accepted norms.

The idea of tabulating all Armenian manuscripts is hardly original. But thus far no single published guide nor detailed report offering a profile of the corpus of Armenian manuscripts is available.

For our survey the following major collections were used through their published catalogues: Erevan, Matenadaran, 10,408 manuscripts; a group comprising those of Venice, Mekhitarist Congregation, Volume III, *Rituals*, 136

manuscripts;⁶ Vienna, Mekhitarist Congregation, 1,304 manuscripts;⁷ Bzommar, Lebanon, monastic collections including that of the Antonian fathers, 683 manuscripts;⁸ New Julfa, Isfahan, Patriarchal collection, 811 manuscripts;⁹ and a composite group including collections in the United States, the Vatican, German collections, Dublin (Chester Beatty), and Cyprus, 738 manuscripts.¹⁰ The total of these codices, all thoroughly tabulated for all periods, is thus 13,944. In addition 2,800 manuscripts from the Jerusalem Armenian Patriarchal collection were examined,¹¹ but only recorded for a fixed time span. Altogether, a total of 16,744 Armenian manuscripts entered in the statistical analysis. The future addition of all other published material not included in this survey would bring the manuscripts close to 20,000, and the utilization of catalogues and inventories which are not yet published, such as the 3,500 or more in the Venice Mekhitarist collection and the 1,000 remaining in the Jerusalem collection, would bring the number very close to the overall total of 25,000 believed to be extant. Our dual sampling represents respectively 55.8 percent (13,944 ms) and 67.0 percent (16,744 ms) of surviving data.

In order to guarantee a degree of certitude and to facilitate the recording process, it was decided to use only specifically dated manuscripts; that is, those with a colophon indicating the precise year or years of execution. If more than one year was mentioned, only the first year was counted. Approximately dated works, for instance "second half of the fourteenth century" or "last decade of the fifteenth," were excluded. Of the sampling of 13,949 manuscripts all dates were recorded even into the late nineteenth century; for the additional Jerusalem series, manuscripts dated between 1300 and 1620 only were tabulated.

The first observation to be made is, that of the smaller sampling of 13,944 manuscripts, 57.2 percent of 7,973 were precisely dated. Calculating the percentages of individual collections within this sampling produces remarkably similar results: Matenadaran, 57.9 percent or 6,030 dated manuscripts; Vienna, Bzommar, New Julfa together, 54.5 percent or 1,521 dated manuscripts; the composite group, 57.2 percent or 422 out of 738 manuscripts. A general figure of 57 percent would mean that of the 25,000 known Armenian manuscripts we can expect to have 14,250 dated bits of material culture produced over a period beginning in the ninth century and extending through the nineteenth century. Our statistical analysis makes use of 7,973 dated manuscripts for this broad period, and by extrapolating from

the Jerusalem collection (57 percent of 2,800 or 1,596 additional dated items), a total of 9,369 pieces of evidence for the period 1300 to 1620.

Methodologically the easiest way to perceive these data is to plot them on a simple graph. The resulting curve with its peaks and valleys should instantly reveal the trends in manuscript production. Since manuscripts were usually commissioned and since they are probably to be considered luxury items, increased production should coincide with the increase in relative prosperity. Thus, a series of charts was plotted of both individual collections and groups of them. Because of the scarcity of surviving manuscripts copied before 1190, the graphs were designed to begin with the year 1200 and terminate with the year 1790. There are fewer than 100 dated manuscripts up to the end of the twelfth century with perhaps twice that many undated from the same period.¹² Since we have reliable historical witness to the willful destruction of whole libraries with thousands of codices, especially during the Seljuk Turkic invasions,¹³ an adequate notion of production cannot be obtained statistically. Though there was obviously continued destruction and loss in the centuries which followed, the number of surviving manuscripts for the thirteenth, fourteenth and succeeding centuries is sufficient to obtain meaningful results.¹⁴

Three major charts were plotted. 1. The entire Matenadaran collection of more than 6,000 dated manuscripts as a control group, since it is itself made up of diverse collections from a broad geographical area. 2. A chart of the combined collections, except Jerusalem, of nearly 8,000 dated items. 3. A chart for a limited moment in Armenian history, the one the author was most concerned with at the time of the initial research, 1300 to 1620,¹⁵ which includes the previous material plus all dated manuscripts from the first eight volumes of the Jerusalem catalogue for this time span. Figure 1 combines these three curves on a single graph. In addition, various individual collections were plotted with varying coordinates. The three major tabulations plotted the frequency of manuscript production by decade. Other charts plotted output year by year and in five, ten, twenty-five, fifty, and 100 year periods; each produced a somewhat different type of curve for the same material. The one using ten year periods seemed to be the most appropriate for the data at hand and was chosen as the best for illustrative purposes.

The results clearly reveal that in the sixteenth century for the first time the level of manuscript production fell below that of the previous or

fifteenth century. The decline is palpable: the fourteenth century records 593 dated manuscripts, the fifteenth 832, the sixteenth only 627, and just the first fifty years of the seventeenth 1,250, while the entire century leaves us more than 2,750 dated manuscripts. These figures are based on the larger sampling of 16,794 items.

A more detailed analysis the period most intensively investigated—the fourteenth to the early seventeenth century—shows that production begins to decline sharply between 1340 and 1350, a time of unrest in the Near East as Mongol Il-Khanid rule ends and successors fight over the pieces. There is a recovery in the next decade, but then a deeper and deeper decline during the successive campaigns of Timur which devastate Armenia from 1387 to 1402. Only after these are over does production begin to increase and sharply so during Qara Qoyunlu rule. However, another decline in quantity is apparent in the two decades after the death of Qara Yusuf (1420), rising again in the 1450s and 1460s, declining in the next decade, and then once again increasing until the year 1500.¹⁶

Then, from 1500, really 1505, to 1520 there is the severest drop in Armenian manuscript production ever recorded. These are the years of Ottoman sultan Selim's campaigns against the Safavids and his conquest of Egypt, Syria, and Armenia. The decline remains generalized during the next decades corresponding to the eastern campaigns of sultan Sulayman in the 1530s and 1540s. The half century from 1500 to 1550 represents the absolute lowest point in the production of Armenian scriptoria until printing finally replaced the manual copying of manuscripts altogether in the eighteenth century. From our sampling of nearly 17,000 manuscripts there are five years—1513, 1519, 1520, 1538, 1540—from the sixteenth century for which not a single one is recorded, whereas for the previous and following century, the thirteenth and seventeenth, there is not a single unproductive year and for the fourteenth only one, 1374, for which no manuscript is recorded.¹⁷

Just as clearly and perhaps even more dramatically, visual inspection of the graphs shows a steady rise in manuscript copying starting in the 1550s, rising sharply, especially after 1610, to reach the absolute historic high point of productivity in the decade ending in 1660. Slight declines are marked during the last Ottoman campaign of the century toward the east in 1575-1580, again during the great famine and Jelali revolts of 1595-1609, and during the forced immigration of the Armenians out of the Arax valley instigated by Shah Abbas in the years 1604-1611.

Certainly refinements in the system employed would produce even clearer results. For instance, instead of basing the statistics on all dated Armenian manuscripts, if one were to choose only those executed in greater Armenia, eliminating works from Constantinople, western Anatolia, the Crimea and Poland, the picture would no doubt be made to appear even worse in periods of decline and less brilliant for Armenia proper, at least in the fifteenth and sixteenth centuries, during apparent revivals. On the other hand, the results under discussion can be controlled or at least checked to some extent by plotting the frequency of other surviving cultural vestiges, provided such works are of a kind that would have been produced by all Armenians at all times and in every environment. Obvious examples would include sub-categories within manuscript production—all illuminated codices or all Gospel manuscripts—and, of course, architectural monuments. For the latter there has been a recent survey limited to eastern Armenia in the fourteenth century by Jacques Sislian which shows fluctuations in monumental building corresponding almost exactly to our charts.¹⁸ In the entire second half of that century, when manuscript production was in sharp decline, there is almost a total absence of church construction.

Another such control can be seen in the chart, Figure II, which plots Armenian Gospel manuscripts as well as the few extant Old and New Testaments and complete Bibles. It is based on information taken from Erroll Rhodes' survey of Armenian Gospels.¹⁹ The various indices indicate that of 1,244 manuscripts, 809 or 65 percent, are dated, a higher than average figure. The curve of dated Gospels executed from 1200 to 1750, bears out, almost without exception, the results of the other graphs. Plotted on this same Gospel chart is another block of information, the frequency, once again by decade, of the number of Armenian printed books from the first issued in 1512 to 1800.²⁰ This curve shows not the number of actual books, for there were tens of thousands printed in the period, but only separate works. There are listed altogether 968 titles with the exact date of publication.

From these two graphs (Figure II) it becomes immediately clear that the first decade of massive distribution of Armenian printed books beginning in the 1660s corresponds exactly to that of the highest level of manuscript production (Figure I). This probably reflects a large rise in literacy and certainly in demand. With the first Armenian Bible printing in 1666, Armenian Gospel manuscript production shows a precipitous drop, the copying of Gospels ceasing completely in 1750 as the production of printed texts

further increased. However, a comparison between the Gospel graph, Figure II, and the general manuscript graphs, Figure I, shows that just at this moment, the second half of the eighteenth century, despite the halt in the manual production of the Gospel, the single most copied Armenian text by a margin of ten, there continued to be a steady and relatively high number of manuscripts executed, even increasing toward the 1790s. Surely this reflects the new variety of secular works which are preserved in the manuscript repositories: dictionaries, travel accounts, memoirs, account books, text books, various kinds of essays.

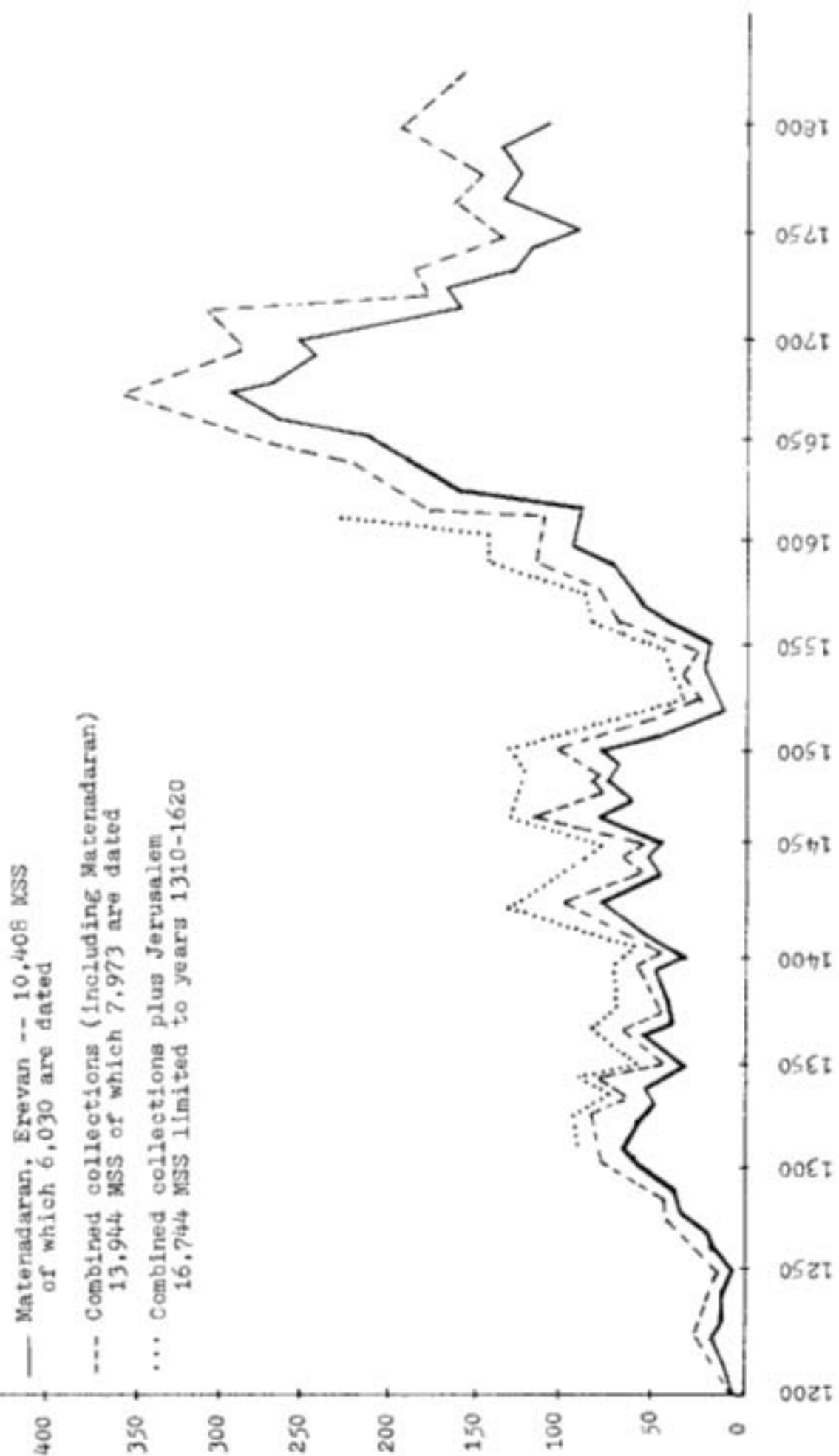
There is almost no limit to the amount and kinds of information available from the statistical analysis of these relatively large bodies of data. The individual production of scores of separate scriptoria and localities can be plotted. Several have been test-chartered, including Erzerum. Its graph, Figure III, is based on some 45 manuscripts from the larger sampling dated between 1180 and 1700. Turkish and Armenian sources on the city indicate that by 1523, as a consequence of the Turko-Persian wars during which it was used as a frontier garrison by the Ottoman army, Erzerum had become totally deserted by its civilian population.²¹ There are no manuscripts in our sampling for Erzerum from 1488 to 1570. By 1543 there were once again about 100 citizens, mostly Armenians. But, from then on, the city prospered steadily to become in the next century the third most important trading center in the Ottoman empire. The burst of Armenian activity is reflected in the dramatic rise in manuscript production.

The city of Julfa on the Arax is also a case in point. Its total destruction and abandonment in 1609 presents us with an interesting terminus ad quem.²² Ten dated Julfan manuscripts are known from the large sampling. The earliest is from 1325, then another from the mid-fifteenth century (1456), four from the second half of the sixteenth century, the frequency increasing as the century comes to a close paralleling the city's rapid rise as the most important Armenian merchant center in the east. Finally, for the half-decade before its final destruction at the start of the seventeenth century there are four manuscripts. Graphically this data confirms our notion that Julfa was a city in dynamic ascension just at the moment it was definitively condemned.

Evidently, further effort on statistical analysis of Armenian manuscripts will prove fruitful. Ideally, the data base should be completed to include all existing Armenian manuscripts, with or without a date. In the

catalogues undated manuscripts are already ascribed to a period, "sixteenth century," "first quarter of the fourteenth century," by evidence other than colophons. The eventual computerization of this information would not be very difficult, especially if one initially limited the categories say to date, place of execution, type of text, and identifying number. It has been the hope of the computerization program designed for the Index of Armenian Art to input all manuscripts, not just illuminated ones as is now the case.²³ Thus far inadequate resources have prevented the execution of this work. Perhaps younger scholars more adept and specifically trained in computerization and statistical analysis will be intrigued enough by this preliminary study to carry on the work.

Figure 1. Survey of Dated Armenian Manuscripts for every 10-year period 1200-1800



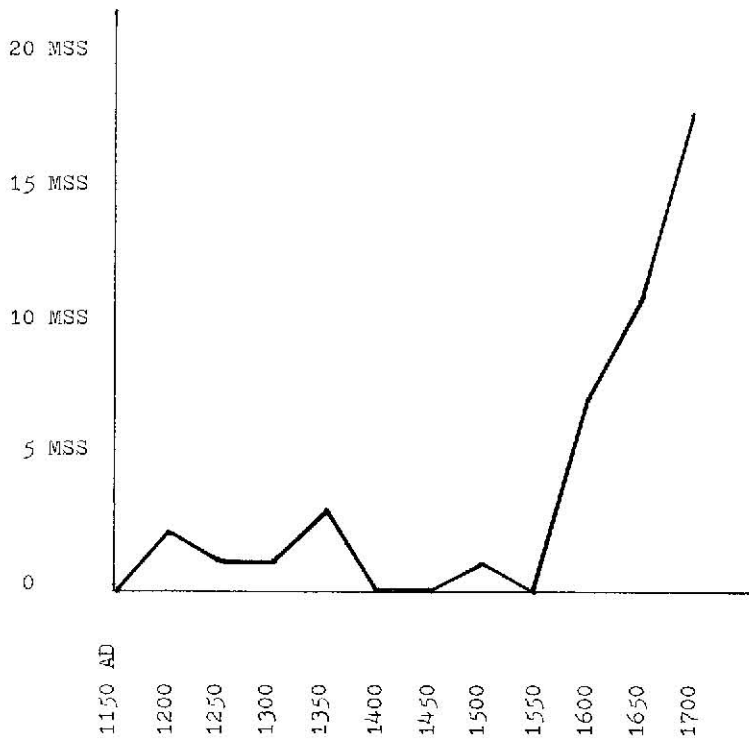


Figure III. Dated Armenian manuscripts executed in Erzeroum from 1150 to 1700

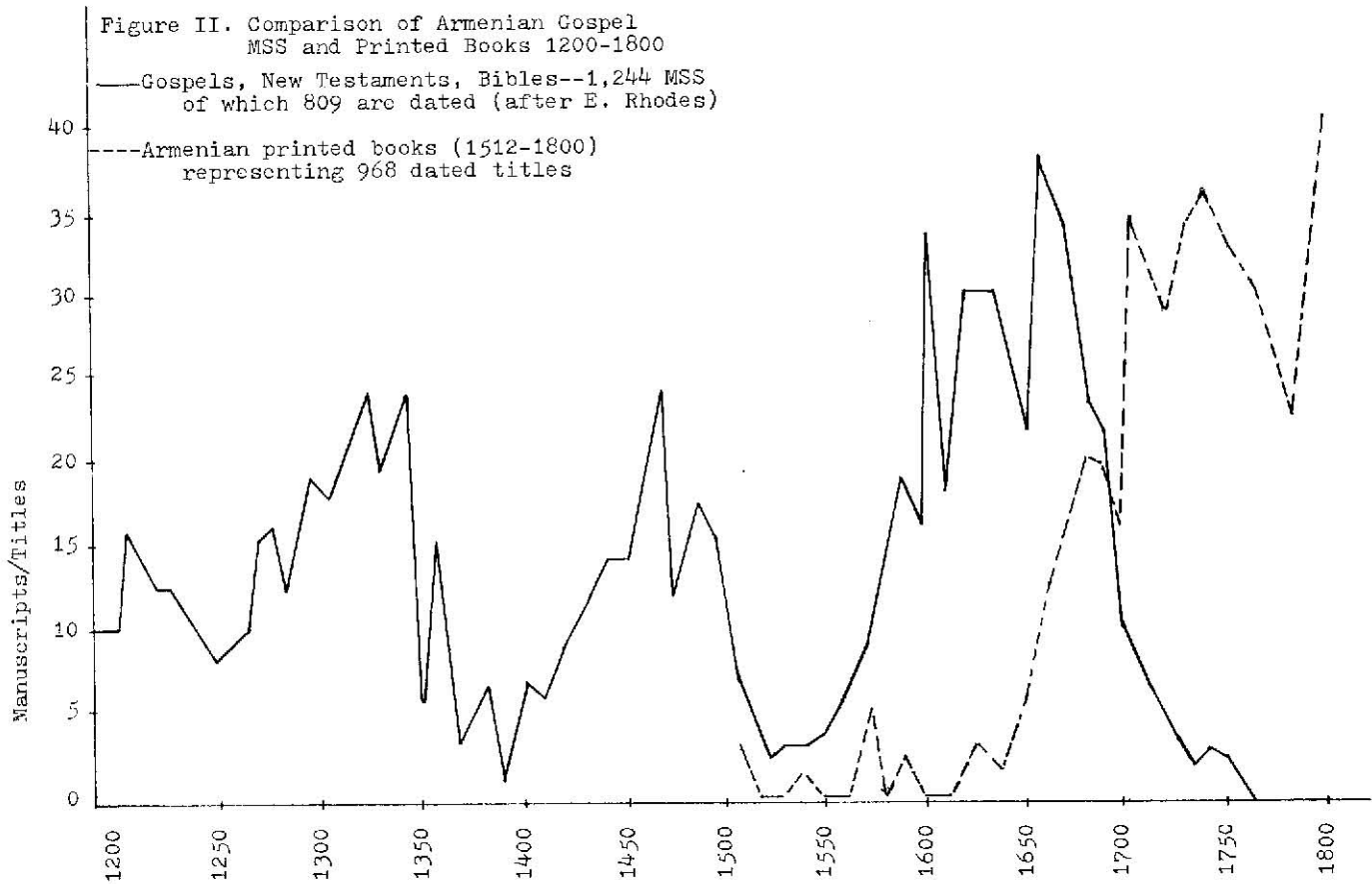


Figure II. Comparison of Armenian Gospel MSS and Printed Books 1200-1800
 —Gospels, New Testaments, Bibles--1,244 MSS of which 809 are dated (after E. Rhodes)
 ---Armenian printed books (1512-1800) representing 968 dated titles

NOTES

¹D. Kouymjian, IAA: Index of Armenian Art, Part I: Manuscript Illuminations, Fascicule I, Illuminated Armenian Manuscripts to the Year 1000 A.D. (Fresno and Paris: Armenian Studies Program, California State University, and Center for Research on Armenian History and Art, 1977), xii; see also, Kouymjian, "IAA: The Iconographical Index of Armenian Art," Journal of Armenian Studies 1 (1975) 1:65-67; Kouymjian, "Illustrated Armenian Manuscripts to the Year 1000 A.D.," Arkheion Pontou, 36 (1979) 249-252.

²Kouymjian, "Sous le joug des Turcomans et des Turcs ottomans (XV^e-XVI^e siècle)," 343-376 in Gérard Dédéyan, ed., Histoire des Arméniens (Toulouse: Editions Privat, 1982).

³*Ibid.*, 370-1.

⁴O. Eganyan, A. Zeyt'nyan & P. Ant'abyan, C'uc'ak jefagrac' Maštoc': anvan Matenadaran, 2 vols. (Erevan: HSSH GA, 1965 & 1970).

⁵A more or less complete list of these can be found printed at the back of each issue of the Revue des Etudes Arméniennes.

⁶For Erevan, see note 4; for Venice, B. Sargisian & G. Sargsian, Mayr c'uc'ak hayerēn jefagrac' matenadaranin Vxit'areanc' i Venetik, III, Maštoc' - girk' jefadrut'eanc' (Venice: Mekhitarist Congregation, 1966). The first two volumes devoted to 319 Gospels and religious manuscripts (Venice, 1914, 1924), were not tabulated because of lack of indexes. The Gospels, however, representing 199 manuscripts are incorporated in Rhodes' list; see below notes 11, 16, and 19.

⁷J. Dashian, Catalog der armenischen Handschriften in der Mekhitaristen Bibliothek zu Wien (Vienna, Mekhitarist Congregation, 1895), text in Armenian with resume of each manuscript in German. This represents volume I with 575 manuscripts; volume II contains numbers 574-1304, H. Oskian, same title (Vienna, 1963).

⁸M. K'ēšišian, C'uc'ak hayerēn jefagrac' Zmmari vank'i matenadaranin (Vienna: Mekhitarist Congregation, 1964), 422 manuscripts; N. Akinian & H. Oskian, same title, Vol. II, "Antoncan hawak'acoy" (Vienna, 1971), nos. 423-682, plus 37 additional manuscripts.

⁹S. Ter-Awētisian, C'uc'ak hayerēn jefagrac' Nor Julayi Amenap'rkic'

Vank'i, I (Vienna: Mekhitarist Congregation, 1970); L. G. Minasian, C'uc'ak jefagrac' Nor-Julayi S. Amenap'rkč'ean vanac' t'angarani, II (Vienna: Mekhitarist Congregation, 1972).

¹⁰A. K. Sanjian, A Catalogue of Medieval Armenian Manuscripts in the United States (Berkeley-Los Angeles-London: University of California Press, 1976), 180 manuscripts; E. Tisserant, Codices Armeni Bibliothecae Vaticanae Borgiani Vaticani Barberiniani Chisiani Schedis Frederici Cornwallis Conybeare Adhibitis (Rome: Typis Polyglottis Vaticanis, 1927), 127 manuscripts; N. Karamianz, Die Handschriften-Verzeichnisse der Königlichen Bibliothek zu Berlin. Verzeichniss der Armenischen Handschriften (Berlin: Asher, 1888), 99 manuscripts; G. Kalemkian, Catalog der Armenischen Handschriften in der K. Hof- und Staatsbibliothek zu München, in Armenian with German title and resume (Vienna: Mekhitarist Congregation, 1892), 22 manuscripts; J. Assfalg & J. Molitor, Verzeichnis der Orientalischen Handschriften in Deutschland, Armenische Handschriften (Wiesbaden: Franz Steiner Verlag, 1962), 28 manuscripts; S. Der Nersessian, The Chester Beatty Library. A Catalogue of the Armenian Manuscripts, 2 vols. (Dublin: Hodgis Figgis, 1958), 67 manuscripts; N. Axinian, C'uc'ak hayerēn jefagrac' Nikosiayi i Kipros (Vienna: Mekhitarist Congregation, 1961), 69 manuscripts.

¹¹N. Počarian, Mayr c'uc'ak jefagrac' Srboc' Yakopeanc' I-VIII (Jerusalem: Armenian Covenant Printing Press, 1966-1978).

¹²See Index of Armenian Art, Fasc. I, *op. cit.*, 14 manuscripts; and D. Kouymjian, IAA, Fasc. II, Illuminated Armenian Manuscripts of the 11th Century, Preliminary Report and Checklist (Fresno: Armenian Studies Program, California State University, 1977), 40 manuscripts. Since the majority of early manuscripts are Gospels, E. Rhodes, An Annotated List of Armenian New Testament Manuscripts (Ikebukuro, Tokyo: Rikkyo (St. Paul's) University, 1959), is of help, listing some 90 manuscripts to the year 1220, see below notes 16 and 18.

¹³In the 1160s some 10,000 were destroyed in the monastery of Tat'ev alone, Step'annos Ōrbēlean, Histoire de la Siounie, trans. M. Brosset, I (St. Petersburg: Imperial Academy of Sciences, 1864) I.191.

¹⁴If, as is suggested later in this paper, all manuscripts, dated and undated alike, from all collections are plotted, the resulting data would produce meaningful curves for the tenth through the thirteenth century too.

¹⁵Actually the dates were originally 1375 to 1604, but curiosity about the period just before and after stretched the limits.

¹⁶The historical details for this and other sections below will be found in Kouymjian, "Sous le joug des Turcomans," esp. 341-358.

¹⁷These empty years have been checked against Rhodes, Armenian New Testament Manuscripts, making the basis for our results dependent on a much larger sampling than that of 16,744 manuscripts.

¹⁸J. Sislian, "L'Activité architecturale en Arménie orientale au cours du XIV^e siècle," REArm 16 (1982) 289-299, see especially the table given in Pl. XXX.

¹⁹Rhodes, Armenian New Testament Manuscripts, the various indices are very useful.

²⁰Hay hnatip grk'i matenagitakan c'uc'ak 1512-1800 (A Bibliographical List of Early Armenian Printed Books 1512-1800), collective authorship (Erevan: Myasnikyan Library, 1963), updated information on early printed books will not change the basic outline of the curve.

²¹The information is based on Ottoman defters, R. Jennings, "Urban Population in Anatolia in the 16th Century: A Study of Kaiseri, Karaman, Amasya, Trabizon and Erzeroum," International Journal of Middle Eastern Studies VII (1976) 21-57, cf., Kouymjian, "Sous le joug des Turcomans," 362-3.

²²J. Baltrušaitis & D. Kouymjian, "Julfa on the Arax and Its Funerary Monuments," Etudes Arméniennes/Armenian Studies. In Memoriam Haïg Berbérian, D. Kouymjian (ed.), (Lisbon: Calouste Gulbenkian Foundation, in press).

²³D. Kouymjian, "Computerization of Manuscript Illuminations: The Index of Armenian Art (IAA)," XVI. Internationaler Byzantinistenkongress Wien, 4.-9. Oktober 1981, Akten (Vienna: Der Österreichischen Akademie der Wissenschaften, 1981), 10 pages.