



Rouben Galichian

COUNTRIES SOUTH OF THE CAUCASUS IN MEDIEVAL MAPS

Armenia, Georgia and Azerbaijan

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Bibliotheca Apostolica Vaticana, the Vatican – Fig. 18 and 57.

Muzeye Iran Bastan, Tehran, Iran – Fig. 37 and 39.

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The Parker Library, Corpus Christi College, Cambridge – Fig. 72 and 73.

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Biblioteca Nazionale Marciana, Venice, Italy – Fig. 6.

Médiathèque Pierre Amalric, Albi, France – Fig. 14.

Bibliothèque Municipale, Mejeans, France – Fig. 21.

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Universitätsbibliothek Heidelberg, Germany – Fig. 23.

John Rylands Library of Manchester University – Fig. 29.

Topkapi Sarayi Müzesi, Istanbul, Turkey – Fig. 35.

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Staatsbibliothek zu Berlin, Germany – Fig. 44.

Walters Art Gallery, Baltimore, USA – Fig. 51.

Fitzwilliam Museum, Cambridge – Fig. 68.

Archivo e Biblioteca Capitolare di Vercelli, Italy – Fig. 69.

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AUTHOR'S NOTE

The third Millennium has already witnessed the steady eastward expansion of the borders of the European Union, which now includes many Eastern European, as well as some of the ex Soviet Union countries. Even Turkey, with over 97% of territory firmly rooted in what is geographically known as "Asia Minor", has aspirations of becoming part of this Union. Had it not been for some unresolved political issues, she might have already become a member state.

Thus, the borders of the European Union are being pushed further to the east and the Union is sharing common borders with countries whose history and geography remains obscure even to the well-educated class of Western Europeans. If, one day, Turkey succeeds in joining the Union, Europe, on its south-east, will share common borders with Syria, Iraq, Iran, Azerbaijan, Armenia and Georgia.

Meanwhile, since 2003, the European Union has initiated a program entitled "European Neighbourhood Policy" which is aimed at improving the stability of countries surrounding the EU and creating a so called reliable "Ring of Friends". In June 2004, the European Union expanded this program by extending it to South Caucasus. Armenia, Azerbaijan and Georgia were invited to participate in this joint initiative, the first phase of which was the preparation of a Country Report for each participant. These were prepared and submitted in March 2005.

Clearly the EU intends to introduce these new neighbours to the population of its member states and this is where the present volume can be useful. I doubt whether any reader not closely linked with the history and politics of the Middle East and Caucasus will boast much knowledge about the medieval history and cartography of these countries, whose history and culture stretch further back than most European countries could claim.

The intent of this work is to familiarize the reader with medieval historical cartography centering on three of the above-mentioned countries; those situated south of the Caucasus range. The author does not intend to raise and discuss historical, political and border issues of the subject countries, which inevitably exist between neighbours who share a long-standing and common history. These issues become particularly acute, when the subject countries have been ruled by superpowers, subjected to their geopolitical "games" as pawns. The western public should acquaint themselves more with their new and prospective neighbours and this book might offer help by covering a small segment of this unfamiliar ground, concerning the depiction of medieval Armenia, Colchis (Abkhazia), Mingrelia and Iberia (today's Georgia) and Albania (today's Republic of Azerbaijan) in maps produced by the Pagan, and later Christian West, as well as the Islamic mapmakers.

Rouben Galichian
London and Yerevan, 2007.

LIST OF MAPS

Chapter two - THE EARLY MAPS

Fig.	Author or Title	Location	Subject	Date of Original*	Date of copy*
1	Sallust	Leipzig	World Map	1 st c. BCE	9 th c.
2	Sallust/Chatillon	Oxford, Bodleian	World Map	1 st c. BCE	13 th c.
3	Collection of works	Yerevan	Noah's sons	-	1589
4	Collection of works	Yerevan	Winds map	-	15 th c.
5	Lucan	Oxford, Bodleian	World Map	1 st c. BCE	14 th c.
6	Sallust	Venice	World Map	1 st c. BCE	14 th c.
7	Macrobius	Private collection	World Map	c. 400	1525
8	Macrobius	Private collection	World Map	c. 400	1515
9	Collection of works	Yerevan	World Map	c. 400	1621
10	Collection of works	Yerevan	World Map	c. 400	1621
11	St. Jerome	British Library	World Map	420	12 th c.
11a	Detail of 11	British Library	Region of Armenia	420	12 th c.
12	St. Jerome	British Library	Palestine	420	12 th c.
12a	Detail of 12	British Library	Region of Armenia	420	12 th c.
13	Orosius/Miller	Private collection	World Map	5 th c.	1897
14	Orosius	Albi	World Map	5 th c.	775
14a	Orosius/?	Private collection	World Map	5 th c.	19 th c.
15	Cosmas	Web	World	6 th c.	20 th c.
16	Cosmas	Mt. Sinai	World	6 th c.	11 th c.
17	Cosmas	Florence	World	6 th c.	7-8 th c.
18	Cosmas	Vatican	World Map	6 th c.	7-8 th c.
18a	Detail of 18	Vatican	Region of Armenia	6 th c.	7-8 th c.
19	Isidore	British Library	World Map	7 th c.	1136
20	Isidore	British Library	Text	7 th c.	1136
21	Isidore	Aix-en-Provence	World Map	7 th c.	12 th c.
22	Isidore	Munich	World Map	7 th c.	10 th c.
22a	Detail of 22	Munich	Region of Armenia	7 th c.	10 th c.
23	Isidore	Heidelberg	World Map	7 th c.	13 th c.
24	Bede	Oxford, Bodleian	World Map	7-8 th c.	11 th c.
25	Bede	Thorney Abbey	World Map	7-8 th c.	1110
26	Bede/Arnstein Bible	British Library	World Map	7-8 th c.	1120
27	Anon. Ravenna/Miller	Private collection	World Map	7 th c.	1897
28	Beatus	BNF Paris	World Map	8 th c.	1050
28a	Beatus/Miller	Private collection	Region of Armenia	Redrawing	1897
29	Beatus	Manchester Univ.	World Map	8 th c.	12 th c.
30	Beatus	BNF Paris	World Map	8 th c.	12 th c.
30a	Beatus/Miller	Private collection	World Map	Redrawing	1897
31	Beatus	Burgo de Osma	World Map	8 th c.	1203
31a	Beatus/Miller	Private collection	World Map	Redrawing	1897
32	Beatus	BNF Paris	World Map	8 th c.	13 th c.
32a	Beatus/Miller	Private collection	World Map	Redrawing	1897

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34	Ibn-Hawqal	BNF Paris	Text	c 973	1145
35	Ibn-Hawqal	Topkapi, Istanbul	Armenia	c 973	1086
36	Al-Istakhri	British Library	World Map	10 th c.	1836
37	Al-Istakhri	Tehran	World Map	10 th c.	1325
38	Al-Istakhri	Leiden	Armenia	10 th c.	1173
39	Al-Istakhri	Tehran	Armenia	10 th c.	1325
40	Al-Istakhri	British Library	Armenia	10 th c.	19 th c.
41	Al-Istakhri	British Library	Armenia	10 th c.	14 th c.

* "c" after the date refers to "century".

"c" appearing before the date means "circa" – around.

42	Harry Beck	-	London Underground	1931	20 th c.
43	Al-Istakhri	Oxford, Bodleian	Armenia	10 th c.	1271
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45	Book of curiosities	Oxford, Bodleian	World Map	1050	12 th c.
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46	Book of curiosities	Oxford, Bodleian	Caspian Sea	1050	12 th c.
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48	Al-Idrissi	Oxford, Bodleian	5 th climate	1154	1456
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58a	Detail of 58	British Library	Region of Armenia	1110	1180
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70b	Detail of 70	Ebstorf	Paradise	1232	1232
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71	Matthew Paris	Cambridge	Christ and the Cross	c. 1252	c. 1252
72	Matthew Paris	Cambridge	The Holy Land	c. 1252	c. 1252
73	Matthew Paris	Cambridge	The Holy Land	c. 1253	c. 1253
74	Matthew Paris	British Library	The Holy Land	After 1254	After 1254
75	Psalter Map	British Library	World Map	1265	1265
75a	Detail of 75	British Library	Region of Armenia	1265	1265
76	Bar Hebraeus	Cambridge	World Map	13 th c.	15 th c.
76a	Bar-Hebraeus/Miller	Private collection	World Map	Redrawing	1929
77	Hereford Map	Hereford Cathedral	World Map	1290	1290
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FOREWORD

When we speak of maps, we refer to documents that are prepared for conveying certain topographical and geographical information or messages from one individual to another or others, by inclusion of the subject in question on the document, in this case the map. A map can be in a detailed, diagrammatic or schematic presentation or in written form, the latter being better known as itineraries or, if accompanied by a sketch of the road, itinerary maps. Schematic or drawn maps can be simple or elaborate and complex. A simple diagrammatic or drawn map is intended and made for conveying specific information only, and its simplistic representation makes a deeper impression on the reader than a complex one. If a map is made for conveying more general information and is targeting a wider readership, it usually is made more elaborate and detailed by inclusion of wider scope and range of information. Thus, it can be said that a map containing wealth of information is packaged for and aimed at a wider and more general market while a simple map is made for a specific purpose and market. Having said that, it must also be mentioned that a map created for a specific purpose highlights its objective at the expense of other information lying outside its topical interest. Generally speaking the advantage of a map over a written text is that the map can convey all the information it contains simultaneously and at one glance, while to obtain the same information from a written text, one has to read the whole text.

Notwithstanding the intention and the purpose of the mapmaker while creating his work, it is seldom that the

image of the map existing in the mind of the mapmaker corresponds with the perception that the image creates in the mind of the reader. The reader, when looking at any given map, particularly when they are detailed and elaborate works, generally sees and notices only the information that he/she expects or wants to find and study, leaving most of the remaining information on the map unnoticed, hence “unused”. A modern day analogy of this in a computer-dominated world would be that the average computer user usually utilises only a few percentage of the capability of these highly sophisticated machines. By the same token the average map-reader “sees” only a small portion of the total information available on a map, leaving the rest of the map data unused.

In the wide variety of maps available today, medieval maps are particularly fascinating objects to observe and study. This is true not only for the specialist cartographer and collector, but also for anyone with the slightest interest in geography, history, maps and mapping. Medieval maps have served as the link between the cartography and geography of the Christian west, with that of the worlds of the ancient Greeks and Romans, acting as a conduit for the transmittal and hence, survival of the knowledge of the ancients up to the period of the Renaissance and thereafter.

All medieval maps are quite unique. Each map was drawn or copied by hand and hence each is an individual product. Copying of a manuscript was the task of a scribe

or copyist but when the original contained one or more maps, these had to be made by specialist copiers and even then invariably contained intentional or unintentional changes or errors in the emerging copy of the map, normally the result of the copier's taste, ignorance or habit. These were more noticeable when the copier was unfamiliar with geography and names of the distant places, which could easily be distorted and made quite unrecognizable. In the case of Arabic and Persian language maps these errors are more pronounced, since the addition or deletion of a dot could change the pronunciation of a letter quite drastically. For example the letter "b" has one dot underneath. If the dot is placed above the line it becomes an "n" and if there are two dots, it becomes a "t", while without dots or with two dots below the line it will become a "y" and the absence of dots gives the reader's imagination a free range. These made the copyist's work difficult and his mistakes seriously misleading.

It should be remembered that maps are invariably copied from other maps. The cartographer finds his required source map or maps and copies them, adding or deleting features, using additional and more recent information available to him and preparing a "new" map as per the requirements or needs of the end user. This was more pronounced in the medieval times, since the creator of the map would have rarely seen the region or place he was drawing and in many cases had not even been anywhere outside his own geographical region. Let us not forget that in those times travelling was luxury reserved only for the privileged few and most of the population were born, lived and died in the same province. Only those few that were fortunate enough to travel could take an existing map and add to it their own recent observations, or newly collected information, thus producing an improved version of the map. However, these people were the exceptions rather than the rule.

In many cases only one copy of a map was made or has survived, which makes the particular map literally unique. This applies to most of the larger format maps. The case of smaller and simpler maps is different. After the invention of the printing press in the fifteenth century, many of the books containing maps were printed and hence, larger numbers of printed copies of some smaller maps have reached us. Regarding maps inserted in manuscripts, if a number of copies of the same manuscript have survived, in many cases their maps are so varied in presentation and detail that they can sometimes even be classified into different categories. Extreme examples of this phenomenon are Isidore's maps (Chapter 2, Part 6) or the so-called "Beatus" maps (see Chapter 2, Part 9).

Most medieval maps are simple or elaborate forms of T-O maps. They are called T-O maps since they represent the inhabited circular or spherical world in the shape of the letter "O", with the letter "T" inserted inside, dividing the inhabited world into the three known continents of Asia, Europe and Africa. Here the vertical stem of the letter "T" represents the Mediterranean Sea with the two arms being the rivers Tanais (Don) and the Nile. The main exceptions to this rule are the Islamic maps, which do not show these divisions, as well as the zonal maps, which divide the world into various climatic zones. T-O type maps were accepted by the church, since the T could be interpreted as the crucifix and the tripartite world was easily linked to the three sons of Noah who settled in the three continents - Sem in Asia, Cham in Africa and Japheth in Europe.

The author suggests that this accepted terminology of "T-O maps" is not strictly speaking correct, and to make it more realistic proposed that the letter sequence should be reversed and these maps should, in fact, be called "O-T maps". The reason being that the earth (O) must exist before it is divided by the (T), and in the case of the other variant, whereby T-O is said to be the abbreviation of "Orbis Terrarum" (the globe of earth) the correct sequence of the initials of this name are first the letter "O", then the "T".

Focal point of the present work is the investigation of the place of the countries situated south of the Caucasus Mountains and their depiction in the maps or geographical texts produced or being in use during medieval Europe, Western Asia and the Islamic World. Today the area in question is home to Armenia, Azerbaijan and Georgia, but during medieval times this was not so. The countries of the region had other divisions and were known by other names. The area occupied by the present Republic of Azerbaijan was known as (Caucasian) Albania and was named Azerbaijan only after 1918, while Colchis (also known as Lazica, Abasgia and in Georgian as Egrisi, Abkhazeti and Imereti)¹, Iberia (in Georgian – Kartli)² and Mingrelia occupied what mostly is present Georgia, which came into being during the eleventh and twelfth centuries. Armenia is the only country in the region whose name has not changed. All these were ancient kingdoms whose people converted to Christianity in 301 CE (Armenia), 319-334 CE (Mingrelia and Kartli-Iberia)³ and fourth to fifth century (Albania). The medieval period saw the entire region overrun variously by the Persians, Byzantines, Khazars, Seljuks and Tatars, leading to the alteration of their borders and demography. Albania disappeared as a country, Georgia formed, and the borders of Armenia kept shifting back and forth. These countries were periodically independent and overrun by powerful neighbouring states.

During the same period a province of Azerbaijan existed to the south of the river Arax, as a province in north-western Media and Persia. Therefore, when in this volume the name Azerbaijan, Ādharbeijān or Atropatene is mentioned, it refers to the present Iranian province of Azerbaijan, while the territory of the Republic of Azerbaijan is addressed by its medieval name, Albania. (For other details see also the last paragraphs of the Introduction, page 19).

Sometimes new names are invented and attributed to regions and places, which are not completely appropriate or correct. One such term is “Lesser Caucasus”, which appeared on the maps sometime in the early twentieth century. This is described as being a range south of the main Caucasus Range, separated from it by the basins of the Kura and Rioni (Phasis) rivers, extending in an arch from west of the Black Sea to Georgia, east of Armenia and west of Azerbaijan. But where did this terminology come from? Up to the nineteenth century this name was non-existent and in the detailed topographical map prepared by the German mineralogist Wilhelm Hermann Abich (1806-1886) in 1843, there is no mention of Lesser Caucasus, in its place one can see a number of small ranges named Guriel, Imeretian, Kharthli (Iberian), Trialeti, Somkheti (meaning - Armenian), Lori etc.⁴ Even in the maps dating as late as 1901 by Lynch and Oswald there is no such name for a mountain range.⁵ The small mountain ranges in the region are situated not too far from each other, but are not continuous and therefore do not resemble or constitute a proper mountain range. Sometime during the twentieth century someone applied the name “Lesser Caucasus” to the collection of these small ranges and now this terminology has been established as a geographical toponym. Furthermore, when the name “Caucasus” comes up, more often than not, the reader will think that reference is made to the Caucasus Mountains, not the region, as this, with its snow-capped peaks, is the overwhelming geographical feature of the area. In the present study whenever the term “Caucasus” is used without any additional qualifications, it is intended to refer to the Caucasus Range or Mountains.

Another misnomer is the current use of the name Anatolia, which was given by the Byzantines to their eastern province, the western part of the sub-continent of Asia Minor. Looking east from Constantinople they saw this vast province extending towards Asia proper,

which they named Anatolia or Ἀνατολή in Greek, meaning “east”. The name seems to have come into use during the sixth century Byzantium. As far as maps are concerned, the term came into use only since the fourteenth and fifteenth centuries, when it was used in parallel with and as a synonym of “Asia Minor”, whose territory was defined as being between the three seas - the Aegean, the Black and the Mediterranean, extending eastward up to the meridian passing over Malatia, near north-eastern corner of the Mediterranean, short of Armenia proper. After the fall of the Ottoman Empire, since around 1923, in order to eliminate the name of Armenia from the Turkish territories, the name Anatolia (or “Anadolou” in Turkish), was given to the whole of Asiatic Turkey, in spite of the fact that only 60% of its territory is within the region defined as Anatolia proper.

Of relevance is also the fact that most western medieval maps had some sort of Christian religious connection and thus Armenia, as the first and the easternmost Christian nation, was included in the “family” of nations. The same can be said of Colchis, Iberia and Albania, which followed Armenia in officially converting to Christianity. Generally speaking, medieval maps produced in the west mention very few non-Christian nations and countries and when they do, these are limited mainly to Media, Persia, Arabia and India. One other factor helping boost the profile of Armenia in the West was the presence of active Armenian merchants in Venice, Ravenna, Genoa, Amsterdam and elsewhere in Europe, who had been travelling there since the Middle Ages promoting trade between the Christian west and non-Christian east.

In recent years some sceptics have raised the argument that the Armenian connection of Noah’s Ark and Mount Ararat appeared in western cartography only after the Crusades and was based on the tales brought to the west by crusaders returning home from the Middle East and Anatolia. The present volume includes the images of two *mappae mundi*, Fig. 22 and 56, one prepared in continental Europe and the other in England, both of them dating from around 1050 CE, some 40-45 years before the first Crusade in 1095. A scrutiny of these pre-Crusade maps will put end to any doubt with this regard, since on both these maps in the region of Armenia a twin-peaked Mount Ararat, with Noah’s Ark perched on its top are clearly depicted.

¹ Suny, Ronald Grigor, *The Making of the Georgian People*, London, 1989, pp. 3-4.

² Ibid. p. 3.

³ Ibid. p. 21.

⁴ Abich, Hermann Wilhelm, *Über die geologische Natur des armenischen Hochlandes*. Dorpat, 1843. (in German). Folded map.

⁵ Galichian, Rouben, *Historic maps of Armenia, The Cartographic Heritage*, London, 2004.

Choosing title for the book presented a number of problems. The first was to select a name, which could describe the geographical area clearly. When Alpine countries are mentioned, one immediately visualises Switzerland, Austria and northern Italy, where the Alps are located. Similar argument applies to most other mountainous areas. However, when it comes to the Caucasus, the interpretations can be very flexible, since these are influenced by geopolitics and economics of the area. To begin with, one should differentiate between the terminologies “Caucasus” and “Caucasian Range” or “Caucasian Mountains”. Caucasus is normally referred to the land occupying the isthmus between the Black, Azov and the Caspian seas, extending from Southern Russia in the north to the borders of Turkey and Iran in the south, while “Caucasian Mountains” refers to the mountain range located in the middle of this region, extending from north-west to south-east. Therefore the term “South Caucasus” means countries or regions located in the southern part of region entitled “Caucasus”. Today these countries happen to be Georgia, Azerbaijan and Armenia as well as the self-proclaimed independent Republics of Abkhazia and Nagorno (Mountainous) Karabagh. Political borders of Iran and Turkey mark the southern border of this region; therefore the influence of geopolitics is of paramount importance. From the three South Caucasian countries, Abkhazia and Georgia occupy a large area in the southern part of the Caucasus Range. Azerbaijan occupies the south-eastern tip of the Caucasus Range, but there is another Azerbaijan, the Iranian province of the same name (which is the elder of the two by about two millennia), yet this Azerbaijan, being a province of Iran of today, is excluded from the region of “Caucasus” since it is located south of the prescribed political boundary of South Caucasus. Karabagh and the Republic of Armenia are a long distance away from the Caucasus Mountains, separated from them by the two above-mentioned countries, and furthermore, Armenia has common borders with Iran and Turkey, therefore, by the existing definition, both can be considered South Caucasian countries. The question now is, in which geographical region can the Medieval Kingdom of Armenia be located, a country whose borders extended much further south and west than those of Southern Caucasus or today’s Republic of Armenia, and which covered a territory of almost ten times of the area it occupies today? If we adhere to the region presently defined as “Southern Caucasus”, most of medieval Armenia will be excluded from this study, yet since time immemorial this area has been known as Armenia.

Finally, what is the best title applicable to the area located south of the Caucasus Mountains, northwest of Iran and the region east of Asia Minor? The answer, I

think is the one given to the present volume, which may not be the most appealing, but at least “Countries South of the Caucasus” conveys the message properly, since it refers to the countries of Georgia, Armenia and Azerbaijan, as well as Abkhazia and Karabagh, located in the region south of the Caucasus Mountains. This region may be extended from Georgia down to Mesopotamia and north-western Iran and westward towards Capadocia and east of Asia Minor, but adding the names of the three countries in the region to the title puts things in perspective and clarifies the limits of this study.

A few hints about the methods chosen and presentation of names in this volume.

1. When discussing maps detailed attention is given to the region located south of the Caucasus and its neighbouring provinces. Other regions of the world are discussed in much less detail.
2. The period, referred to as “medieval”, can be flexible and in various traditions and cultures these are not consistent. The most commonly accepted concept for the medieval period is the time span between the fall of the Roman Empire in the fourth century and the fall of the Byzantine Empire in the middle of the fifteenth century. In other traditions the term represents the era between the seventh century and the discovery of America in 1492. For the purpose of this study, I have taken the medieval period to be from the fourth century to the middle of the fourteenth century, a span of just over one thousand years.
3. In spelling Arabic and Persian names, wherever the original spelling includes hard vowels, these have been shown with a Macron (ā, ī and ū).
4. Also in order to segregate modern toponyms from the names depicted in the maps, the original place names as well as the titles of the original books and manuscripts, printed texts or their direct translations are shown in italics.
5. The texts inside square brackets have been added by the author for further clarification.

According to information available to the author, a large-scale work dedicated to the medieval maps of the area of Caucasus has never been published and the present work will be the first of its kind to study the countries located south of the Caucasus Mountains during the middle ages.

Rouben Galichian
London/Yerevan – 2007

CHAPTER ONE

INTRODUCTION TO MEDIEVAL MAPS

The oldest surviving objects that could be considered as maps have reached us from around three millennia BCE (Before our Common Era). These include some stone carvings that show boundaries of lands and outlines of a small region. However, the first World Map that has reached us more or less intact is a Babylonian clay tablet, dating from about 600 BCE.⁶ We have inherited much literature regarding geography and descriptions of countries and peoples dating from Before our Common Era, some of which include references to maps and mapping, but no document that can be classified as a map has reached us from the Ancient Greek and Roman periods. The peak of geography and cartography of the ancient Greek period was achieved by the Alexandrian Claudius Ptolemaeus, better known as Ptolemy, who lived between the years of 90 and 168 of the Common Era (CE, otherwise - AD). His book entitled “*Geographia*” was in use in Europe up to the end of the sixteenth century. Although in his texts Ptolemy writes about mapmaking and does mention maps, his maps, if any, have not survived and the earliest Ptolemaic manuscript maps that exist today date back from only the twelfth or thirteenth centuries.

Early medieval maps were mostly of simple design, containing minimum amount of information. They gradually

evolved into more and more advanced and elaborate documents, containing much more topographical and mythical/religious information. In spite of the advances in cartography during the late medieval period and the emergence of the detailed and accurate portolan charts, particularly those of the Mediterranean area, the traditional basic T-O shaped *mappae mundi* remained in use and indeed flourished for centuries in parallel existence with the portolans (see Figures 21, 23, 26, 31, 58, 60 and others). The reason for this continued trend was that these maps represented a link with the cultural and traditional spiritual past of both the mapmaker and the reader, something that made them feel at ease with these maps. A similar trend can be noted in Japanese cartography, where the focus of their religious cartography since the fourteenth century was India, the birthplace of Buddha. Japanese maps of this area show much detail about the sub-continent to the exclusion of almost everything else. In spite of the presence of western maps and atlases in Japan since the sixteenth century, these traditional spiritual maps were the most common maps in Japan up to the middle of the nineteenth century.⁷

Medieval regional maps were mostly made to serve a certain purpose and cannot be considered as general

⁶ Ibid.

⁷ Atlases of Ortelius were brought to Japan during the late sixteenth century

maps, since they include only information needed by the end user for his particular purpose. They could be plans of buildings and cities, land plot or biblical maps, itinerary maps, as well as maps made for other specific purposes. Most medieval maps fall under the “general” type heading and are those of the world as a whole. They were prepared continuously since the time of the ancient Greeks through Roman and medieval periods. During these periods, with the exception of Ptolemaic maps, very few regional maps were made before the tenth century, that is when Islamic geographers began depicting various regions and provinces of the Islamic world in their geographical texts.

In this study plans and maps of small localities are not considered and the present and subsequent chapters discuss maps that were drawn or were in use during the medieval period. These are mainly world maps (*mappae mundi*) and some regional maps, most of which are based on the teachings of the Scriptures rather than being based on scientific and cartographic knowledge. It can be said that medieval geography and cartography in the west have Christian origins and are chiefly ecclesiastical in their overall concept. The *mappae mundi* were mainly used to reinforce religious teachings and doctrine, at the same time they included elements of myth and folklore taken from the existing folk traditions. The exceptions to this overarching rule are the Islamic maps, which were produced to describe the Islamic world and provinces, omitting all religious and mythological content.

During the early Christian period and even after the establishment of Christianity in the west, the science of geography and cartography did not merit separate attention, and any such subject was usually included in the books dealing with history and religious matters. In Western Europe this tradition extended to the late medieval period, where history textbooks included chapters on *computus* (calculations and tables of Easter and the calendar of other religious events’ dates), as well as the geography and descriptions of peoples and countries and even natural history and mythological subjects. Some of these manuscripts even included world maps, which needless to say, were very simple schematic types, drawn as per the teachings of the religious leaders, who were by no means homogeneous in their opinion and teachings.

The same principle applies to the surviving Armenian manuscripts that have reached us in part or complete. The only geographically important work to have reached us is Anania Shirakatzı’s “*Ashkarhatzuytz*” (*Ašxarhačuyć - World Mirror*), which was written and revised during the fifth to seventh centuries.⁸ In the surviving Armenian manuscripts much literature exists about heavenly bodies and astrology, while there are very few works that can be classified as geographical. The exceptions are itineraries, comprising short lists of cities and the distances between them, entitled “*Mghonachap*”, (“mileage charts”). These appear in various manuscript collections and geographical treatises. Were they to be compiled and studied in depth, they could represent a body of itinerary-type maps similar to the *Tabula Peutingeriana*.⁹

Regrettably there are no geographical works amongst the surviving Georgian manuscripts and little literature of any kind exists in the old (Caucasian) Albanian language, whose script is yet to be deciphered. In 2003 some new fragments of Albanian language manuscript were found in St Catherine’s Monastery in Mount Sinai, and scholars are still working to decipher these documents. According to the fourth century Armenian historian Koriun, his teacher Mesrop Mashtotz, the inventor of the Armenian alphabet, also invented the Alban alphabet.¹⁰

For their basic tools and texts medieval scholars and teachers used some important manuscripts and texts originating from earlier periods. This practice continued for many centuries to come. A few of these manuscripts, whose origin is pre medieval, could be considered also as medieval works, given the important role and use during this period. The present work considers a few such manuscripts, which have been in continuous use up to the thirteenth and fourteenth centuries.

Some medieval authors such as the pagan writer Macrobius (flourished around 400 CE) have taken the texts and theories developed by Strabo and Ptolemy and used them in their works, thus perpetuating and spreading them.

Another author, Gaius Julius Solinus (flourished around the end of the third century) wrote a book of natural history entitled *Collectanea rerum memorabilium* (“Collection of Curiosities”), also known as *De Memorabilibus mundi*

⁸ See comments in Chapter 4, Section 5.

⁹ Galichian, R., *Historic maps of Armenia*, London, 2004, pp. 15 and 41.

¹⁰ Koriun, *Life of Mashtotz*, Yerevan state University, Yerevan, 1981. pp. 288-9.

(“Wonders of the World”). This includes descriptions of fantastic and imaginary creatures and peoples and was taken partly from Pliny the Elder’s (23-79 CE) *Natural History* and Pomponius Mela’s (flourished around 43 CE) works on geography. It was extremely popular and was widely copied until the late medieval period.

During the early period, when Europe was converting into Christianity, church leaders did not openly oppose the earlier established belief of a spherical earth, but since these beliefs and theories were pre Christian and pagan, ecclesiastics gradually began to refute them and proposed that these theories have to be studied properly, under the light and guidance provided by the teachings of the Scriptures. Some church historians, such as St John Chrysostom (born 347 in Antioch – died 407), the Bishop of Constantinople and St Augustine of Hippo (354-430) started to express their opposition to the pagan beliefs of the sphericity of the earth, which was considered as non Christian.¹¹ In the end it was Cosmas Indicopleustes (the one who traveled to India), born in the first half of the sixth century in Alexandria, a traveller and merchant who later became a religious figure, who officially challenged and repudiated the old theory and suggested that the earth, as per the instructions given to Moses by God, was in the shape of a rectangle and a tabernacle. It was from the sixth century onwards that the science of cartography and geography were “Christianised” and adhered, in every detail, to the teachings of the Scriptures, or more precisely, the teachings of the fathers of the church, in every detail. Notwithstanding this, in the sixth century a few Christian figures such as Johannes Philoponus (490-570) of Alexandria, an important Christian philosopher and theologian, continued to believe in the geocentric universe with a spherical earth.

Cosmas’s theories were in radical opposition to all that had previously existed and were so strict and extreme that even Bishop Isidore of Seville (born 560 in Carthage – died in 636) disputed some of them. Cosmas’s teachings are reflected in his book *Christian topography*, which is discussed in the present volume’s chapter on Cosmas (see Chapter 2, Part 5).

During the early and middle medieval periods, the church fathers were the principal instigators of the trends and rules governing cartography and all drew from the

same sources. The individual cartographer had a free hand as far as the internal details and presentation of the maps were concerned. For details of the maps, these mapmakers drew the seas and continents according to the best available knowledge. Their work, initially simple, were gradually embellished with ornaments and figures taken mainly from the world of mythology and other available sources, such as the works of Solinus (as discussed earlier).

According to pre Christian theories, the circular world was divided into three main continents of Asia, Europe and Africa (or Libya), the rest being occupied by salty or bitter waters. At the same time, according to some geographers, the world was divided into climatic zones, these being zones running from east to west and thus dividing the spherical world into parallel rings. Based on the above representations, medieval maps are divided into three broad general categories:

- 1 Tripartite, where the world is divided into the three continents. These are in turn sub-divided into schematic and elaborate types. They are commonly known as T-O maps and are the most common of medieval maps encountered in literature.
- 2 Zonal type, where the world is divided into the climatic zones. These include Macrobius’s maps and many Islamic ones.
- 3 Quadripartite, which are similar to type 1, but have an additional continent in the southern hemisphere. The oldest of these maps is that of Pomponius Mela. This type includes, among others, Beatus’ maps.

One of the earliest mentions of the tripartite world maps is by the Roman historian Sallust (86-34 BCE), who described the world as being divided into Africa, Asia and Europe. This was the most commonly used form (T-O type), used in medieval times until well into the second millennium of our era.

The division of the world into climatic zones also has a long tradition in cartography. The zones were discussed in the early Greek period as far back as the third century BCE. Aristotle (384-322 BCE) divided the spherical world into five zones.¹² Later, Eratosthenes (275-194 BCE), Marinus the Tyrian (ca. 70-130), Claudius Ptolemaeus of Alexandria (90-168) and others also accepted the Zonal division of the world. Posidonius (135-50 BCE) was of the

¹¹ Hippo, in Numidia, was situated near the present day city of Annaba in Algeria.

¹² Aristotle, *Meteorologica*, With an English translation by H. D. P. Lee, Loeb Classical Library, Cambridge, Mass., 1987, pp. 179-183

opinion that if temperatures are the basis of these divisions, there should be seven zones, instead of the commonly accepted five. Islamic cartographers also adopted the seven-zone division of the inhabited part of the earth.

Another Roman poet and author who wrote about the zonal division of the world and divided it into five zones was Publius Vergilius Maro (70-19 BCE), better known as Virgil, who in his *Eclogues*, *Georgics*, *Aenid* writes:¹³

Five zones compose the Heaven, whereof one is ever glowing with flashing sun, ever scorched by his flames. Two zones at the world's ends stretch darkling to right and left and are set in ice and black storms. Between these, by the Grace of God is the zone for feeble mortals. Our globe rises steep to Scythia and falls downward to Libya's southland.¹⁴ One pole is very high above as while the other is beneath our feet, as seen of black Styx.¹⁵

These climatic zones are best shown on the world maps of the Roman philosopher and grammarian Ambrosius Theodosius Macrobius (flourished around 398 to 423), whose works were based on theories taken from the *Cosmography* of Posidonius of Apameia (135-50 BCE) and the works of Eratosthenes. Macrobius's works were copied and much used until the late medieval period. For detailed discussions see Chapter Two, Part 2 on Macrobius.

Macrobius's climatic zones were parallel zones, layered from north to south sequentially called Northern Frigid – Northern Temperate – Central Torrid (perusta = parched) – Southern Temperate and Southern Frigid. According to the theory, the only inhabited zone was the Northern Temperate one, the Central Torrid zone being so hot that it prevented anyone crossing it into the southern hemisphere. Paradoxically, according to the old myths, Antipodes, humanoid figures with reversed feet, inhabited the Southern Temperate zone, but this created conflict with the teachings of the Bible, which states that the human race is derived from Adam and Eve and if humans could not cross the Central Torrid zone, then no

one could possibly live in the southern zones, not even the fabled Antipodes.¹⁶

The climatic zones are very commonly used in Islamic cartography, where their number has been increased and the inhabited belt of the world, which extends roughly from Siberia in the north to Ethiopia in the south, is itself divided into seven sub-zones called *ighlims*. See the maps of Idrissī (born in Ceuta 1099 - died 1166), Qazvinī (1203-1283), Ibn-Sāid and al-Mustawfī in Chapter Three, Parts 5,6,7 and 8.

Quadripartite presentation of the world was recorded during the first century by Pomponius Mela, when he added an extra continent, in the south of Africa, to the already existing tripartite world, claimed by some to be the Antarctic continent. This landmass also appears in some of the zonal maps, such as those of Macrobius, where it is considered as the habitat of the Antipodes. This continent also appears much later, in the copies of the tenth century world maps of Beatus, where it sometimes referred to as the "Fourth" and the "Unknown" continent.

Many medieval maps were prepared by religious scholars and had to be in agreement with the teachings of the Scriptures. During the fourth century Saint Augustine divided the history of the world into six distinct periods, starting from Noah and the Flood until the coming of Christ, which is considered to be the Sixth and current age. Many maps made after this period include important landmarks of the six ages of the world such as the Earthly Paradise, the four rivers of Paradise, Mount Ararat in Armenia (where the Ark landed), the Tower of Babel, Chaldea (the birthplace of Abraham), Babylon and Jerusalem.

In order to delineate the boundaries within which to work, I have had to make choices and certain exclusions. The exclusions are purely for practical reasons, since otherwise this would have required a huge amount of work, which should rightfully be the subject of individual studies. Therefore for the purpose of the present study I have purposely excluded certain important works.

¹³ *Virgils Works, Ecloues, Georgics, Aenid*, Translated from Latin by H. Rushton Fairclough, London, 1916, p. 97

¹⁴ Region in the north and northeast of the Black Sea, including north of the Caucasus Range.

¹⁵ In Greek mythology Styx is the river forming the boundary between the earth and the underworld.

¹⁶ These were humanoid figures with turned feet, facing backward. Mela called them "Antictones". See Mela, Pomponius - *Description of the World*, Translated with an introduction by F. E. Romer, Ann Arbor, 1998, Ch.1 para. 3.

These are:

- 1 The works of Ptolemy and any map based on his *Geography*
- 2 All portolan maps and sea charts
- 3 The Roman Itinerary map known as the “Tabula Peutingeriana”, whose origins and *raison d’être* are still in dispute.
- 4 The Armenian geographical work “Ashkharhatzuytz” (Ašxarhacuyc - World Mirror)

As indicated by the title of this volume, I have tried to consider only the most important maps of the medieval period and study the presence and location of Armenia, Iberia, Colchis and Albania in these documents. However it does not mean that medieval maps and those showing these countries are limited to the ones considered or shown in this study only. The reader may wonder why I have chosen to present the work of Cosmas, whose manuscripts do not refer directly to Colchis, Iberia, Armenia, Albania or any other province or country. I would contend, however, that his influence on Medieval thought and cartography was such that his teachings and instructions are important enough to be mentioned here.

The study includes only samples of maps, most of which are unique, but others may have reached us in tens or in the case of printed maps, in scores of copies. However, since manuscript copies were made by scribes and copyists, they do not, as a rule represent an exact replica of the source map. In some cases and especially after a few consecutive copies, the differences with the original could be considerable. Variations in different copies of the same map can also be explained by the fact that these may have been made centuries apart, during which time the traditions and techniques of copying, writing, painting and representation continued to evolve. This phenomenon is evident in the changed appearance of many end products, particularly in the illustrations of manuscripts, which rely more on the palate and the fancy of the copier.

The maps that I have chosen to reproduce and discuss here are mainly in chronological order of their originals and are those, which have significant importance in the world of cartography. Exceptions to this are the Islamic maps, which have been grouped in one chapter, and appear in chronological order within that chapter. Where more than one copy of one of the maps has survived, for

the purpose of discussion I have chosen one or in some cases a few typical and representative copies.

Having said that the maps are listed and discussed in their chronological order, it should be noted that this refers to the dates of the original maps, i.e. when they were created for the first time. In other words, the chronology concerns the period when the authors of the originals of these maps lived. As most medieval map originals were lost and only later made facsimile have survived, the maps reproduced in this volume, although having chronological birth dates, may have widely divergent copy dates. As an extreme example, Istakhrī’s maps were first made around 950 CE and hence they are considered to be tenth century maps, but surviving copies reproduced here date from 1173, 1271, 1325 and even as late as 1836 CE.

Some of the medieval maps shown and discussed in this volume may also have been shown in my previous work, but I have tried to reduce repetitions by including more detailed information and comments concerning the topography, presentation, details, descriptions and legends shown on the same maps.¹⁷

Even in this modern age of Information Technology, the maps that most of us possess and use today may not be very up-to-date and correct as far as the most recent developments and changes in the field are concerned. City plans may not contain new streets or name changes and in the case of regional and world maps, the most recent changes in national borders and nomenclature. During the medieval period transfer of information was a laborious and lengthy process. Consequently, by the time information regarding the latest discovery or development reached the cartographer, much time may have elapsed. Since maps were drawn by hand, they were difficult and expensive to make and corrections were rarely made in hurry. For the above reasons any given medieval map may fail to reflect the reality of the day and may represent knowledge available some time before its conception. In the case of western medieval maps, it must be borne in mind that the maps also had to adhere to relatively strict religious rules and teachings, thus making any changes subject to approval of the church. Having said that one should bear in mind that these maps do represent the geographical, economic, religious, political and historical thoughts of the era of their creation and are valuable means for bringing us this information through the ages.

¹⁷ R. Galichian, *Historic maps of Armenia. The Cartographic Heritage*, London, 2004. pp. 42-63.

When scrutinizing medieval maps it must be understood that during those times due to absence of geographical coordinates and information, different maps may often place the same features and toponyms in different locations. For today's observer such placements may look strange and questionable, but the fact is that the confusion plaguing the placement of toponyms was common until the eighteenth century, when only Europe and its adjacent territories had become more or less "properly" mapped.

In the simpler type of T-O maps, it was not unknown for the medieval mapmaker not to bother to place the towns and countries near their presumed locations, but simply to group them according to their locations in the three continents or climatic zones, satisfied with writing merely a list of toponyms inside the particular continent or zone. See maps of Fig. 24, 26, 53 and 68.

It is common to see erroneous placement of countries and geographical features, such as positioning the Caucasus and Taurus mountain ranges to the southeast (St. Jerome Fig. 11 and Ebstorf Fig. 70) or the south (Beatus, Fig. 31) of the Caspian Sea.

As can clearly be seen from the maps depicted in this study, the positioning of places and toponyms on the medieval maps, to say the least, are approximate, therefore when looking at the medieval maps one should not be concerned with the exact position allocated to towns and countries, but pay more attention to their presence or absence on the maps. The names themselves can also present problems of their own, as the same place may appear in different maps under variety of names. An extreme example of the above two problems combined is the Daryal Gorge in the middle of the Caucasus Range.

Various names given to the present day Daryal Gorge and the Derbend Gates in East Caucasus are listed in the table below. These two passes do exist in the Caucasus. The first, Daryal Gorge is situated in the middle of the Caucasus Range, near Mount Kazbek and is a very narrow gorge, with high rising shear granite cliffs on both sides. This is where the Georgian Military Road passes on its route from Tbilisi to Vladikavkaz. The Arabs and the Persians call it "Gate of the Alans".¹⁸ The other is the

Caspian or Derbend Pass, which is located at the eastern end of the Caucasus Range, where it slopes down to sea level near the present day seaside city of Derbend on the Caspian Sea. The Arabs and the Persians called this city "Bab-ul-Abwab" (Gate of the Gates). The pass also is known as the "Iron gates" or "the Gates of Alexander [the Great]". Legend has it that a wall as well iron and brass gates were built by Alexander to keep the barbaric northern tribes of Gog and Magog from attacking the population of the civilized world living in the south, but the location of the gates, as described in the early medieval manuscripts, is near the Daryal Pass.¹⁹

Various writers and mapmakers of ancient and medieval times show these passes in different ways. One common mistake is to depict it in the middle of the Caucasus Range, where the Daryal Gorge is, yet give it a name which belongs to the pass located near the Caspian Sea.

It can be seen that most maps of the era erroneously attribute the name "Caspian Gates" to the pass in the middle of a chain of mountains, which should in fact be the Alan's Gate, later named Daryal Gorge or Pass.

In early medieval European maps countries and regions shown south of the Caucasian Mountains and Armenia (in addition to various regions of the Byzantine Empire) include those of the pre-Christian world, such as Assyria, Babylon, Phoenicia, Persia (Parthia) etc. From these mighty empires and kingdoms today only Persia and Armenia remain, while the rest have disappeared from the face of the modern maps. From the other countries present in the region today, Georgia was formed during the eleventh to twelfth centuries by the union of the territories of Colchis-Imeretia-Abkhazia, Kartli-Iberia, Mingrelia and Kakheti (see the next paragraph). Albania, as an independent country disappeared during the ninth to tenth centuries and the territory was later divided into various provinces and Khanates of Daghestan, Derbend, Shirwān, Shamakhi, Talish etc., themselves inhabited by different tribes and groups of peoples.²⁰ Some of these must have gradually absorbed the now stateless Albanian people, who had converted into Christianity since the fourth and fifth centuries (see page 9). This assimilation continued under the Russian and Persian rules, which were the dominant forces in the area from the seventeenth century onward. In 1918 some of these territories

¹⁸ The Alans were Iranian tribes living on the other side (north) of the Caucasus, an area accessible only through this gorge.

¹⁹ Wallis Budge, Sir Ernest Editor - *The History of Alexander the Great, being the Syriac version of the Pseudo-Callisthenes*. Edited from five manuscripts, with an English translation and notes by Ernest A. Wallis Budge. Cambridge, 1889. pp. 130-163.

²⁰ R. Galichian, *Historic maps of Armenia. The Cartographic Heritage*, London, 2004, pp. 9, 10, 168, 178, 210-213.

Examples of this confusion are listed in the table below.

Author or mapmaker, work and reference in brackets	The Gorge in the middle of the Caucasus Range	The pass near the shores of the Caspian Sea.
Strabo (Geography, Book 11, 12.1)	Caspian Gates	
Pliny the Elder. (Pliny Natural History Bk.VI, 30)	Caucasian Pass ²¹	
Pomponius Mela. (Description of the World, Book I, 81)	Armenian Gates. (Possibly refers to the pass in Siah-Kuh mountains in NW Iran.)	Caspian Gates
Ptolemy. (Geographia, Book 5, Chapter VII and XII)	Albanian Pass	Sarmatian Pass
Arabs and the Persians (Encyclopaedia of Islam Vol. I, pp.835/7)	Bāb-ul-Alān (Alans' Gate) also Caucasian Gates	Bāb-ul-Abwāb (Gate of Gates) Derbend Pass or Iron Gates.
Orosius (Seven books of History against the Pagans, Book 1, 2.40)	Armenian Gates, as it appears in the text.	
Ashkharhatszuytz (5-7 c. MS, St. Lazzaro, Venice No.1245, p.41-42)	Gate of the Alans and Ktzeqen. P.41 of the MS. (location not specified)	Fortifications of Derbend and Tjora Gates, (p.42 of the MS.)
Ashkharhatszuytz (5-7c, Matenadaran, Yerevan MS 582, p. 177a)	Gate of the Alans and Tzitzen (location not specified)	Fortifications of Derbend
History of Armenia, Chamchian M., Venice. (1786, Vol. 3, Index)		Iron Gates, Derbend Pass, Alans' Gates, Tjora Gates (in Armenian)
St. Jerome (Fig. 11)	Caspiu Porte ²²	
Orosius, (Fig. 13)	Caspian Pass, as shown on the reconstructed map.	
Isidore (Fig. 22)	Porte Caspiae (see footnote 22)	
Ravenna map (Fig. 27)	Porte Caspiae (see footnote 22)	
Sawley Map (Fig. 58)	Caspiae Porte (see footnote 22)	
Vercelli <i>mappa mundi</i> (Fig. 67)	Alexander's Gates. Name normally attributed to the Caspian Gates.	
Ebstorf (Fig. 70)	Porte Caspie (see footnote 22)	
Bar Hebraeus (Fig. 76)		Iron Gates (see footnote 33)
Hereford Map (Fig. 77)	Portee Caspie (see footnote 22)	
Vesconte (Fig. 79)		Porte ferree (Iron Gates)

²¹ Pliny the Elder says that many erroneously call this pass the Caspian Pass. See Pliny, *Natural History*, Translated from Latin by H. Rackham, Loeb Classical Library, Harvard University Press, Volume II, Books 3-7, 1942 and 1999, Book, 6, p.359.

²² Anderson, Andrew Runni, *Alexander's Gate, Gog and Magog, and the Inclosed Nations*, Cambridge, Mass., The Medieval Academy of America, 1932, pp. vii and 16-25.

were annexed together and the first Republic of Azerbaijan was born and later confirmed as one of the constituent republics of the Soviet Union, while the Iranian province of Azerbaijan kept its existence throughout the medieval period until the present. As the Central Asian tribes had not yet invaded Anatolia and the Middle East, earlier maps do not mention Turkey or any Turkic tribes. The oldest of the subject countries discussed in this volume, having enjoyed continuous existence since the sixth century BCE until today, is Armenia.²³

In the west the name “Georgia” given to the united territories of Colchis-Abkhazia-Imeretia, Kartli-Iberia, Kakhetia and Mingrelia is based on the direct translation of its Persian name “Gurjistan”. However, in the Armenian language this is not the case. The new kingdom appearing in the north of Armenia was given the name of one of its constituent states, that of Kartli-Iberia (in Armenian – Virq) where in the city of Mtskheta the king had his seat. This region is located directly north of Armenia, and the newly born larger country continued to be called “Vrastan”, that is, the land of the people inhabiting Virq (Iberia).

It must also be mentioned that the area occupied by Albania (Azerbaijan), Armenia, Colchis and Iberia (Abkhazia and Georgia) is often given an incorrect name in relation to its geographical position. These are said to be “Transcaucasian” countries, which literally means “beyond the Caucasian Mountains”, a terminology given to Georgia, Armenia and the Republic of Azerbaijan by the Russians and copied by the others. The implications of this terminology vary depending on point of view from which one looks at the map. Transcaucasus from the Russian side may imply Armenia, Azerbaijan and Georgia, but from the southern side, “Transcaucasus” will mean Russia itself. Therefore the terminology of “Transcaucasus” relating to these countries is a misnomer, as is the terminology “South Caucasus” (see page 11).

Another error is the terminology “Eastern Anatolia”, which is often used to define the location of Armenia, literally meaning “east of the east” (see page 10). From the countries in the region of South Caucasus Armenia has been partially located in a geographical area called the “Armenian Plateau” or “Armenian Highland”, defined as the

plateau surrounded by the Pontic Range, Kura river basin, northern Zagros Mountains near Lake Urmiya and Eastern Taurus – south of Lake Van, a plateau covering an area of some 400,000 square kilometers. This term “Armenian Plateau” was coined during the early nineteenth century and was extensively used by the German mineralogist Hermann Wilhelm Abich in his maps and reports (c. 1840). Abich was based in St. Petersburg and knew the area very well, since he had traveled extensively in the North and South Caucasus, as well as inside the area to the east of Asia Minor, even climbing Mount Ararat in 1845.²⁴ Therefore it can be said that medieval Armenia occupied a territory extending from the South Caucasus to the fringes of the Armenian Plateau or Highland and thus confirm that it is located East of Anatolia, but certainly not in “Eastern Anatolia”.²⁵ Georgia (Iberia and parts of Colchis in medieval maps) as well as Azerbaijan (Albania, in medieval maps), however, can be truly called countries located in South Caucasus, since even in medieval times they were fully contained in the area today known as such.

Notwithstanding the above shortcomings, medieval maps have an extremely important role in conveying us the information available at the time and bring us closer to understanding our ancestors’ thoughts and actions.

²³ Ibid. pp. 11 & 36.

²⁴ Abich, H. W., *Über die geologische Natur des armenischen Hochlandes*, 1843, p. 13

²⁵ R. Galichian, *Historic maps of Armenia. The Cartographic Heritage*, London, 2004, pp. 8,9,26 and 27 and Voskanian, Armenak M., *The Armenian Plateau*, Yerevan, 1976, pp.5-6, (in Armenian).

CHAPTER TWO

EARLY MEDIEVAL MAPS (Fourth to ninth centuries)

In this first chapter of the book early medieval maps are discussed, all of which are works depicting the world (mappae mundi). The chapter includes maps of Sallust, who although lived during the first century of our era, was so influential that his works were used as history and reference books for well over a thousand years. As mentioned in the Introduction, the early medieval maps were based on early Greek sources but like all other branches of learning, they gradually had to adapt themselves to the teachings and dogmas of the church and its leaders. These can be observed by studying the maps reproduced in this chapter.

In the simple T-O type early medieval maps, there are generally only a few countries mentioned, (those better known in the west). In instances where countries of Northern Asia are named, Armenia is generally the only country appearing South of the Caucasus. The names of Colchis, Iberia and Albania can only be seen in the more elaborate and detailed maps.

Some of the finest examples of early medieval maps are discussed in the following sections.

1 – SALLUST

Caius Crispus Sallustius, generally known as Sallust (86-34 BCE) was a Roman senator and historian, who subsequent to his falling out with the Caesar, was sent to Africa as a governor of Numidia (in the north-west of Africa). He spent some time in Africa and returned home a rich man. During his mission there he was involved in various rebellions and conflicts with neighbouring powers and has left accounts of his activities.

He produced his most important works on the conspiracy of Catiline and the war of Rome with Jugurtha. Both accounts appear bound in one manuscript, which was copied and used as a textbook of history for almost a millennium. In his *Jugurthine War* Sallust writes about Africa, describing its geographic location and climatic conditions, as well as its demography, where he narrates how the Armenian mercenaries settled in North Africa and intermingling with the Libyan tribes, gave rise to the peoples that inhabit the region today. An excerpt of the text is given below.²⁶

In the division of the earth, most writers consider Africa as a third part; a few admit only two divisions, Asia and Europe, and include Africa in Europe. It is bounded, on the west, by the strait connecting our [Mediterranean] sea with the [Atlantic] ocean; on the east, by a vast sloping tract, which the natives call the Catabathmos. The sea is boisterous, and deficient in harbours; the soil is fertile in corn, and good for pasturage, but unproductive of trees. There is a scarcity of water both from rain and from landsprings. The natives are healthy, swift of foot, and able to endure fatigue. Most of them die by the gradual decay of age, except such as perish by the sword or beasts of prey, for disease finds but few victims. Animals of a venomous nature they have in great numbers.

Africa, then, was originally occupied by the Getulians and Libyans, rude and uncivilized tribes, who subsisted on the flesh of wild animals, or, like cattle, on the herbage of the soil. They were controlled neither by customs, laws, nor the authority of any ruler; they wandered about, without fixed habitations, and slept in the abodes to which

night drove them. But after Hercules, as the Africans think, perished in Spain, his army, which was composed of various nations, having lost its leader, and many candidates severally claiming the command of it, was speedily dispersed.²⁷ Of its constituent troops, the Medes, Persians, and Armenians, having sailed over into Africa, occupied the parts nearest to our sea.

The Medes and Armenians connected themselves with the Libyans, who dwelled near the African sea; while the Getulians lay more to the sun, not far from the torrid heats; and these soon built themselves towns, as, being separated from Spain only by a strait, they proceeded to open an intercourse with its inhabitants. The name of Medes the Libyans gradually corrupted, changing it, in their barbarous tongue, into Moors.

Some copies of Sallust's manuscripts, which have reached us, do also include a simple T-O map, which relates to his narrative of the *Jugurthine War*. Many copies of this map mention the name of Armenians in North Africa, along with the names of the Medes and the Persians. These were probably the forbearers of the first T-O maps, as we know them today.

It is interesting to note that according to linguists, the Basque language has many similarities with the Armenian tongue and there are words that are common in both. Perhaps linguists should look into the possibility that these connections are due to the Armenian mercenaries having settled in Spain and North Africa. Could these mercenaries be part of the ancestral line of the Basque peoples?

As mentioned above, Sallust's works were copied and re-copied and were in use until the late medieval period and many of the later copies of his manuscripts have reached us. Some of these include basic T-O maps, which show the continents, including the names of some countries and peoples. Since they are about the history of northern Africa, this particular area is shown in more detail. Some of these basic maps can be seen on the following pages. These maps are taken from various manuscript copies of Sallust's works some of them dating from as late as the thirteenth and the fourteenth centuries, when they were still in use as textbooks by historians and scholars.

²⁶ Sallustius, Caius Crispus, *The Conspiracy of Catiline and War with Jugurtha*, translated by Thomas Hayward, Cambridge, Mass., Loeb Classical Library, 1924. Electronic version (continuous, with no page numbering).

²⁷ Hercules or Herakles was one of Alexander The Great's commanders.

Fig.1 – This basic T-O map is one of the oldest surviving Sallust maps. The copy dates from the ninth or tenth century and is drawn on vellum and taken from a Sallust manuscript now in the University of Leipzig in Germany. Unusual for T-O maps, it includes the vignettes of some cities and provinces. In line with all T-O maps, this one is also oriented with east at the top.

The territory of Asia includes only four legends, *Tanais*, *Asia*, *Phenices* and *Nilus*. In the area of Europe there are no legends, only the city of *Roma* is represented with a vignette of a castle and its name, attesting to the importance of the power of Rome in the Empire.

Since Sallust was the governor of Numidia, he has naturally paid more attention to the details of this continent. *Affrica* (Africa) contains 24 legends, which include cities of *Harran*, *Cartago* (Cartage) plus four other cities. Various provinces are shown including rivers and names of certain tribes. The fourth line from the centre bottom, near mount *Athlas*, reads *Medi - Armeni*, a reference to the Armenians and Medes having settled in the area.

Sallust "Mappa Mundi", 9th century.
University of Leipzig Library, Leipzig, Germany. MS 1607, f. 1r.
Size 40 x 53 mm

Fig. 2 – This map is known as “Gautier de Châtillon world map”, and is included in his work entitled *De Alexandreis*, an epic poem about the conquests of Alexander the Great. The author was born in Ronchin (France) in 1135 and died in 1201 in Amiens. The book includes this map, which is a Sallust type of map and contains a few of the toponyms included in the poem.

In addition to having the T-O map layout, the map also boasts two double vertical lines at the northern and southern fringes of the inhabited world, dividing the world into three climatic zones. The two outer zones are the frigid zones, outside the habitable world and only the central part is shown as the habitable world, conforming to the T-O shape and divisions.

The four protruding arms and the outer ring of the map are inscribed with the names of the four cardinal directions and the external double circle bears the legends of the twelve winds. The rivers *Tanais* (Don), *Nilus* and the *Mediterraneu Mare* (Mediterranean Sea) are shown as the arms and the stem of the letter T, dividing the continents. In Europe the names shown include the river *Danubius* (the river Danube) *Ungaria*, *Germania*, *Italia* and *Roma*. The triangular shape at the western end of the Mediterranean, near the ocean is inscribed *Calpe*, Latin for the “Rock of Gibraltar”. In the territory of Asia the toponyms are divided into two columns. The column on the left begins with the region of *Armenia* and is then followed by *Bitinia*, *Frigia*, *Galathya*, *Lidia*, *Boecia*, *Pamphilia* and *Niceia*. The right column begins with *Paradisus* and is followed by *India*, *Parthia*, *Media*, *Assiria*, *Persida*, *Mesopotamia*, *C[h]aldea*, *Arabia*, *Siria*, *Palestina*, *Anthiochia*, *Ascolonia*, *Samaria*, *Asia*, *Judea*, *I[e]r[usa]lem*, *Galilea* and the legends in South Asia read *Egypt*, *Alexandria*, *Babilonia*.

Africa includes various countries and tribes. From top, along the Mediterranean we note the tribes of *Medi* (Medes), *Libies* (Libyans) and *Armeni* (Armenians), who according to Sallust had settled in North Africa after the death of Hercules.

The text around the map also describes the division of the earth between the sons of Noah. Similar circular maps exist in Armenian manuscripts in Yerevan, showing the directions where Noah’s sons took after leaving the Ark, as well as the names and characteristics of the twelve winds surrounding the circle of the globe. (See Figures 3 and 4.)

Gautier de Chatillon
 “De Alexandreis”, 13th
 century.
 Bodleian Library,
 Oxford. MS Bod. 527,
 f. 189v.
 Diameter 7 cm.

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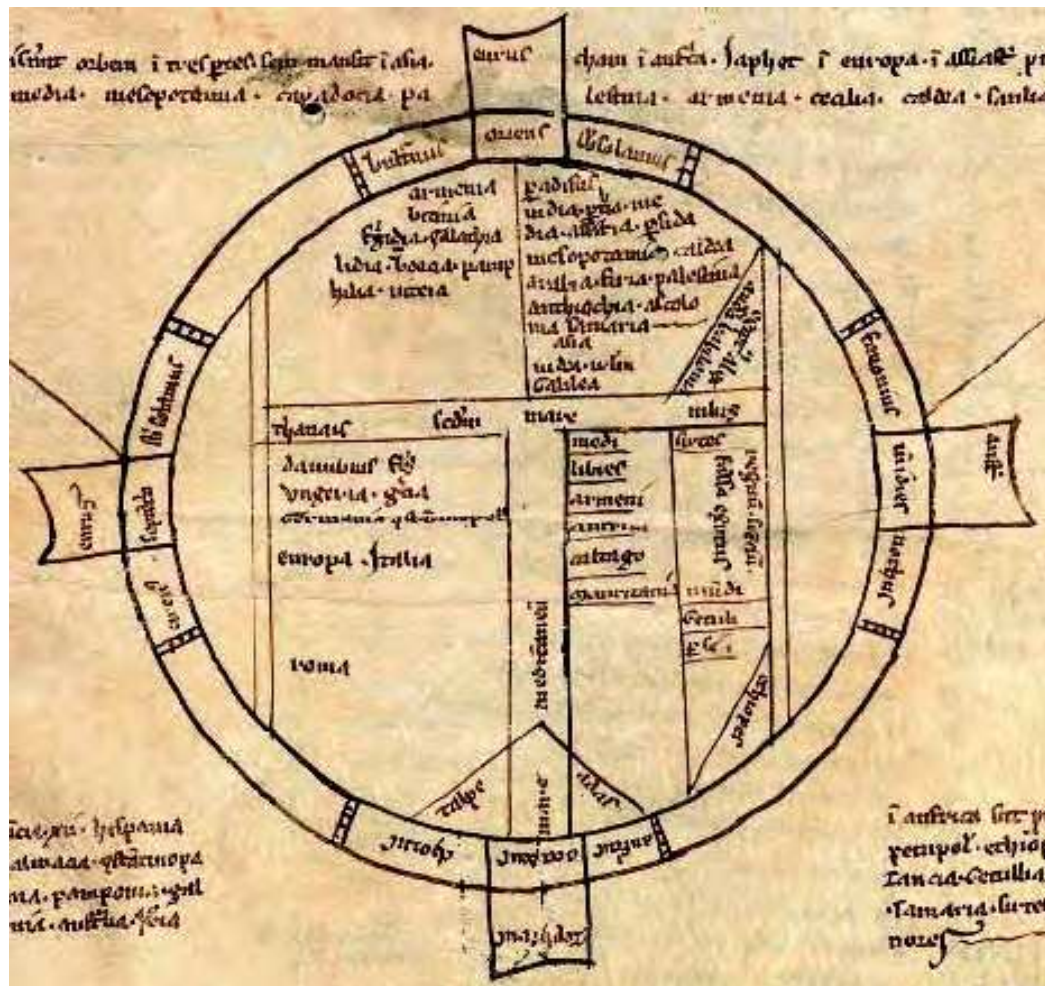


Fig. 2

Fig. 3

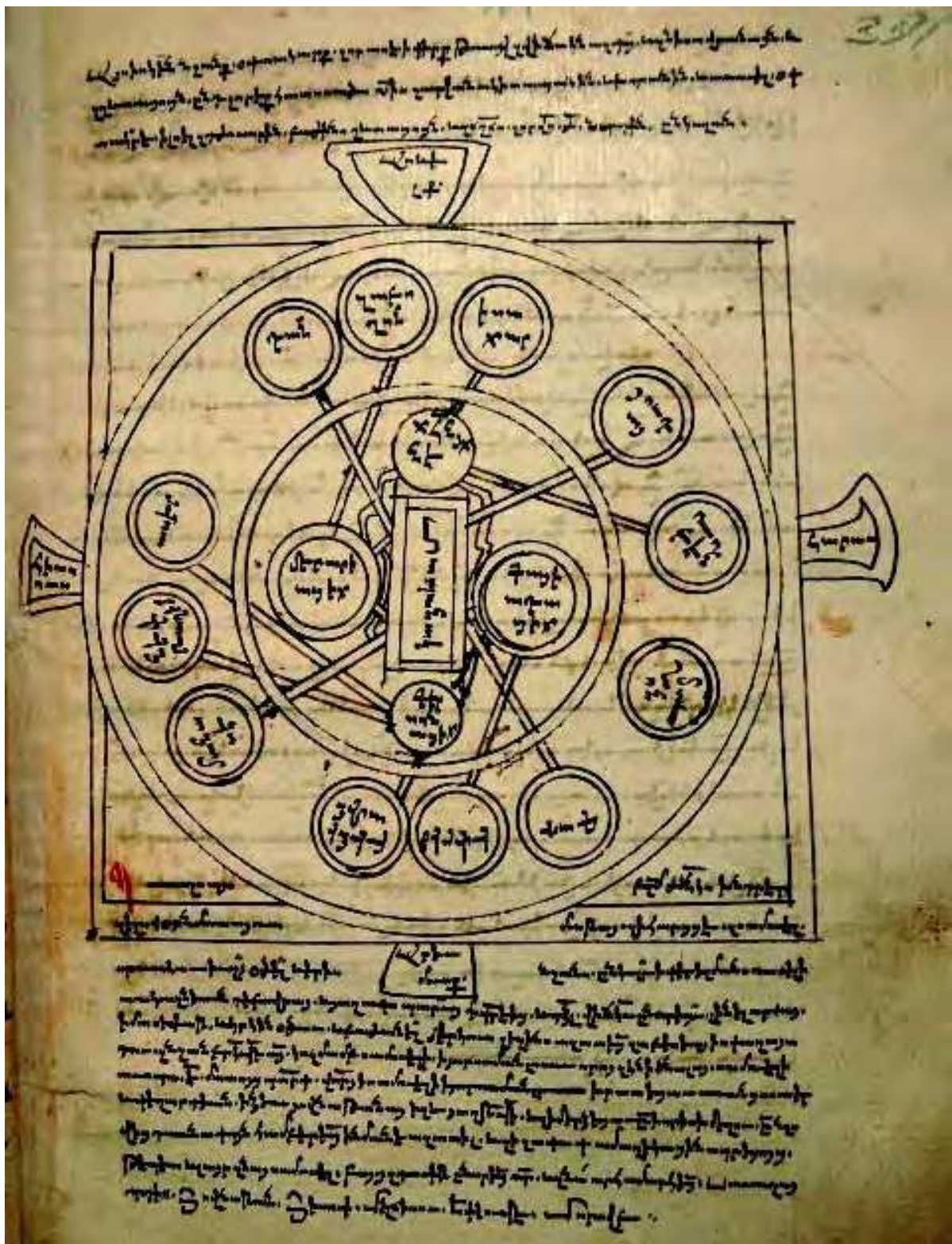


Fig. 3 – This map is from an Armenian manuscript copied during 1589. Similar to the map of Fig. 2, this circular map is oriented with east at the top and has the cardinal directions shown in the four protruding arms. It also has the “Ark of the Covenant” in the middle showing all the directions, which the tribes of Israel took when dispersing all over the world.

Collection of various works. Manuscript dated 1589.
Matenadaran - Yerevan, Armenia. MS 1770, f. 391r.
Size 14.5 x 15.3 cm

Fig. 4 – This circle cannot be considered as a T-O map, but in view of the fact that the map of Gautier de Chatillon depicted in Fig. 2 has the principal twelve wind names, it may be appropriate to show the Armenian version of the same winds.

In this sketch the cardinal directions are shown between the double circles surrounding the world, while the names of the winds appear on the radial lines. The map is oriented with east at the top and each of the twelve radial lines connecting the winds to the central globe bears the name of the wind together with the type and character of the weather that it brings.

The names of the winds and the characteristics of their associated weather, starting from the top of the sketch, which is east and moving anticlockwise, are as follows.

From east to north:

1. *Apelod*. Temperate, sunny and rainy.
2. *Kikias*. It is dry and parches.
3. *Vorias*. Reduces the clouds and stops the rain.

From north to west:

4. *Apark*. Early cold and bringer of hail.
5. *Thraskia*. Cold and bringer of snow.
6. *Agestes*. Forms clouds.

From west to south:

7. *Zephyr*. Moves the flowers.
8. *Leps*. Bringer of rain.
9. *Lianotos*. Cold fog and uneasy clouds.

From south to east:

10. *Notos*. Cold, brings thunder and lightning and heavy rains.
11. *Euronotos*. Melts the ice.
12. *Euros*. Brings humid and warm rains.

Collection of various works. Manuscript 15th century.
Matenadaran, Yerevan, Armenia. MS 1130, f. 121r.
Size 14 x 18.5 cm

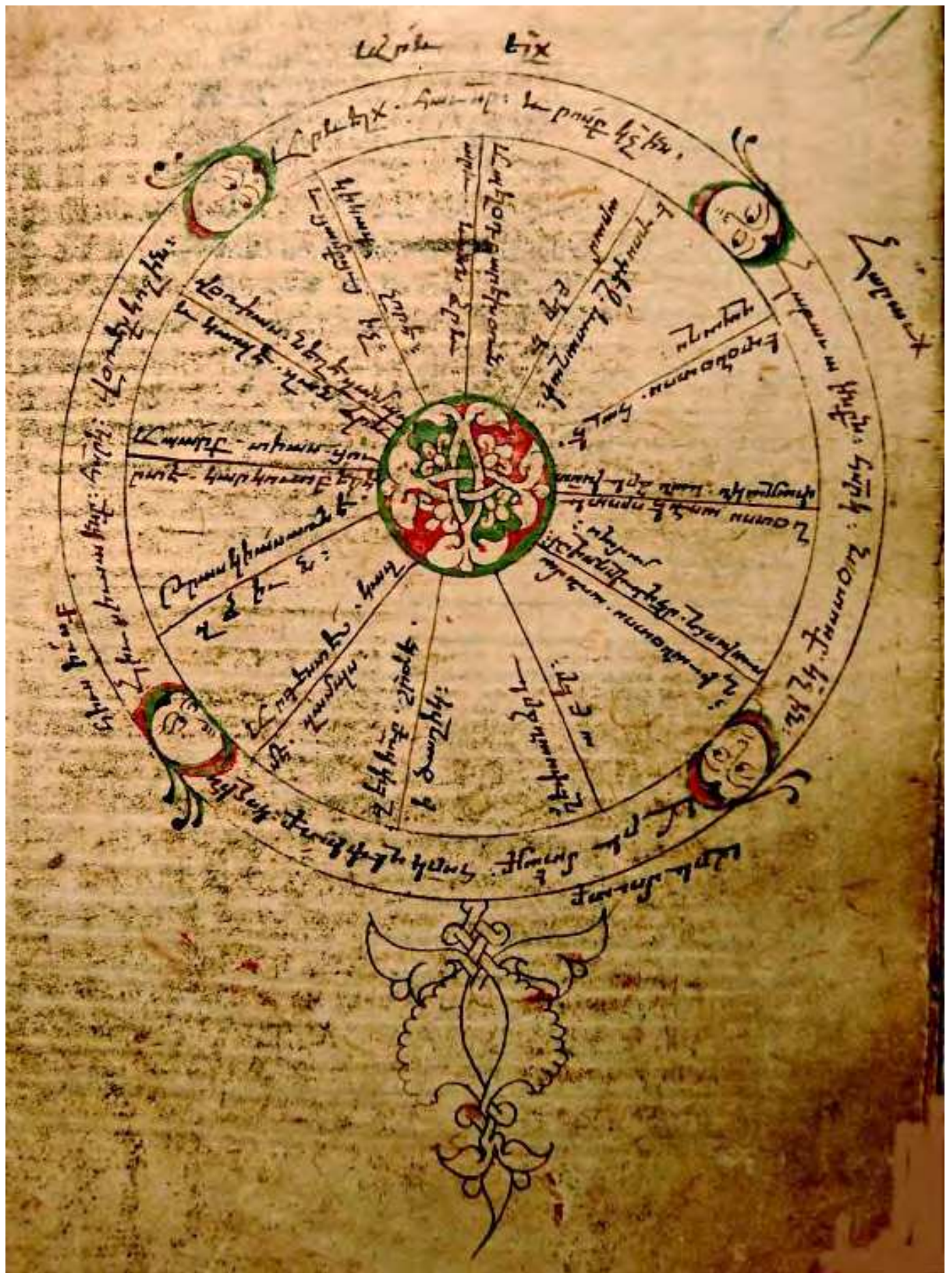


Fig.4

Fig. 5 – This page is from Lucan’s manuscript of *Pharsalia*, which describes the fight between Pompei and Caesar. Lucan lived during the first century and like Sallust, was of the opinion that Asia was the greatest continent of all and that Europe and Africa should be considered together as one continent. The original of the text of Lucan’s *Pharsalia* (or, “Civil War”, as many scholars call it) was written in 61-65 CE, approximately a century after the events it chronicles. The page is from a fourteenth century copy of the original work.

This copy of the manuscript includes maps. One is a T-O map shown on top of the page, which is a typical Sallust map oriented with east at the top and showing the *Mediterraneu*, *Tanais* and *Nilus*. The last two legends appear under the arms of the T, while inside the body of water the legends at the left read *Fison* (Ganges) and *Fir-fir*. There are two rivers emerging from the Tanais and the Nile, connecting them to the surrounding ocean in a slanted path. Above the left arm is a vignette of a castellated city, representing *Jerusalem* (somewhat rubbed). The other arm bears the legend *Egiptus*, near which appears the rectangular shape of *Mare Rubrum* (the Red Sea). At the very top (east) the legends read *Asia* and *India(?) Maior*. Inside Europe there are only a few legends, the important ones being *Europa*, *Hispania* and *Roma*.

On the African side, which has the most legends and is even divided into various countries and provinces, opposite *Roma* we see *Cartago* and to its east the legend inside the rectangle reads *Fenicies* (Phoenicia). To the west of Carthage (downward) appear the names of the tribes inhabiting the area. These are the *Numidi*, *Libie*, *Armeni* and *Medi* (Numidians, Libians, Armenians and Medes), with *Perse* (Persians) further to the south, each shown with linear borders. According to Sallust these were the tribes, which form the ancestral line of the present day North Africans.

Looking at the map it seems that some of the legends are later additions, such as *Mare Mediterraneu*, *Tanais* and *Nilus*, which the scribe may have added in order to rectify some of the apparent errors.

The map shown at the bottom is a simple Lucan map, which mentions only the three continents with the rivers and sea separating them (*Tanais*, *Nilus* and *Mare Mediterraneu*). We also see the island of *Gades* (port city of Cadiz in mainland Spain) at the western edge of the Mediterranean.

Lucan, *Pharsalia*. Copy dating from the fourteenth century.
Bodleian Library, Oxford. MS Lat. Class. D.14, f. 137v.
Diameter 8.5 cm.

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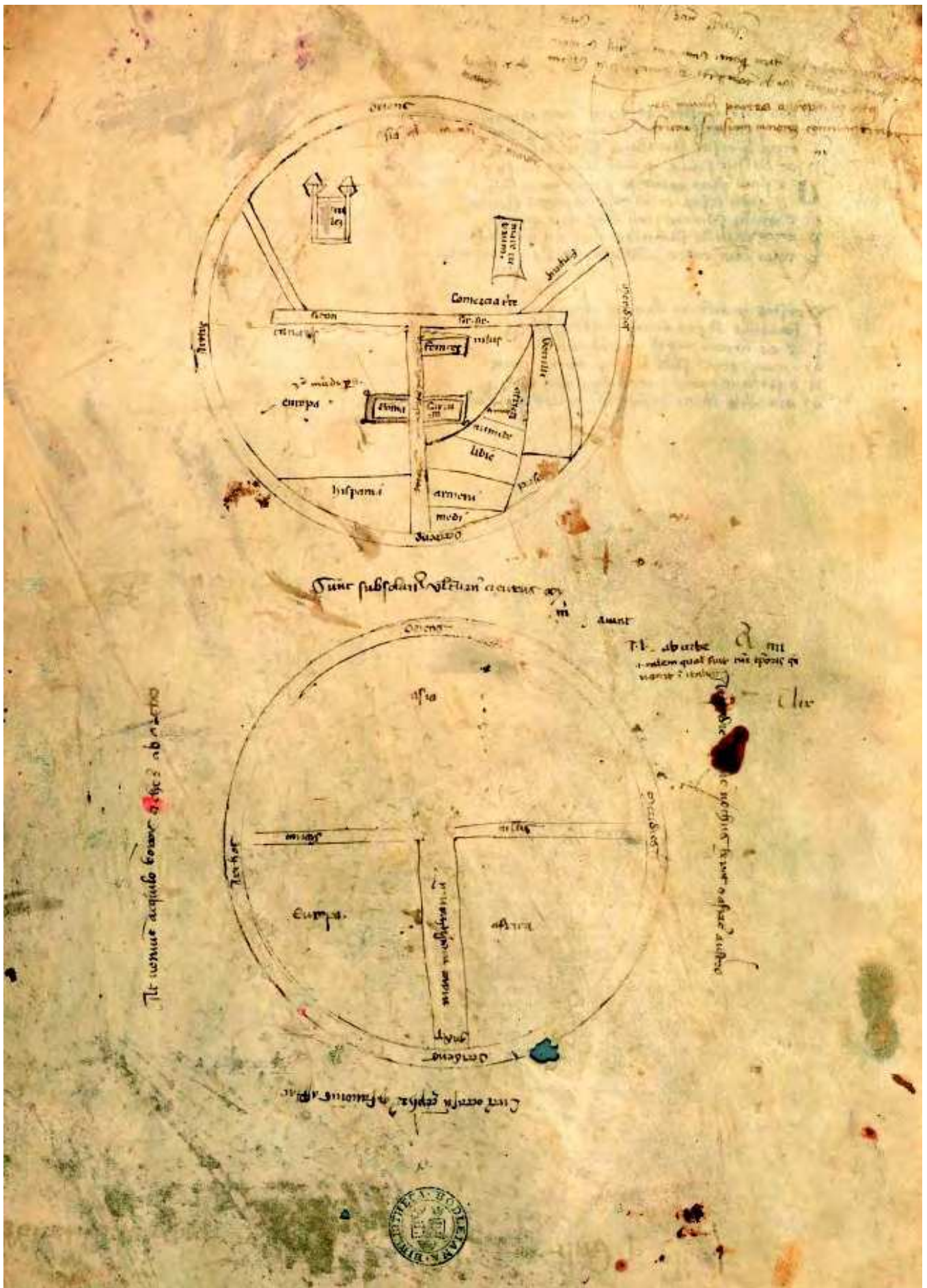


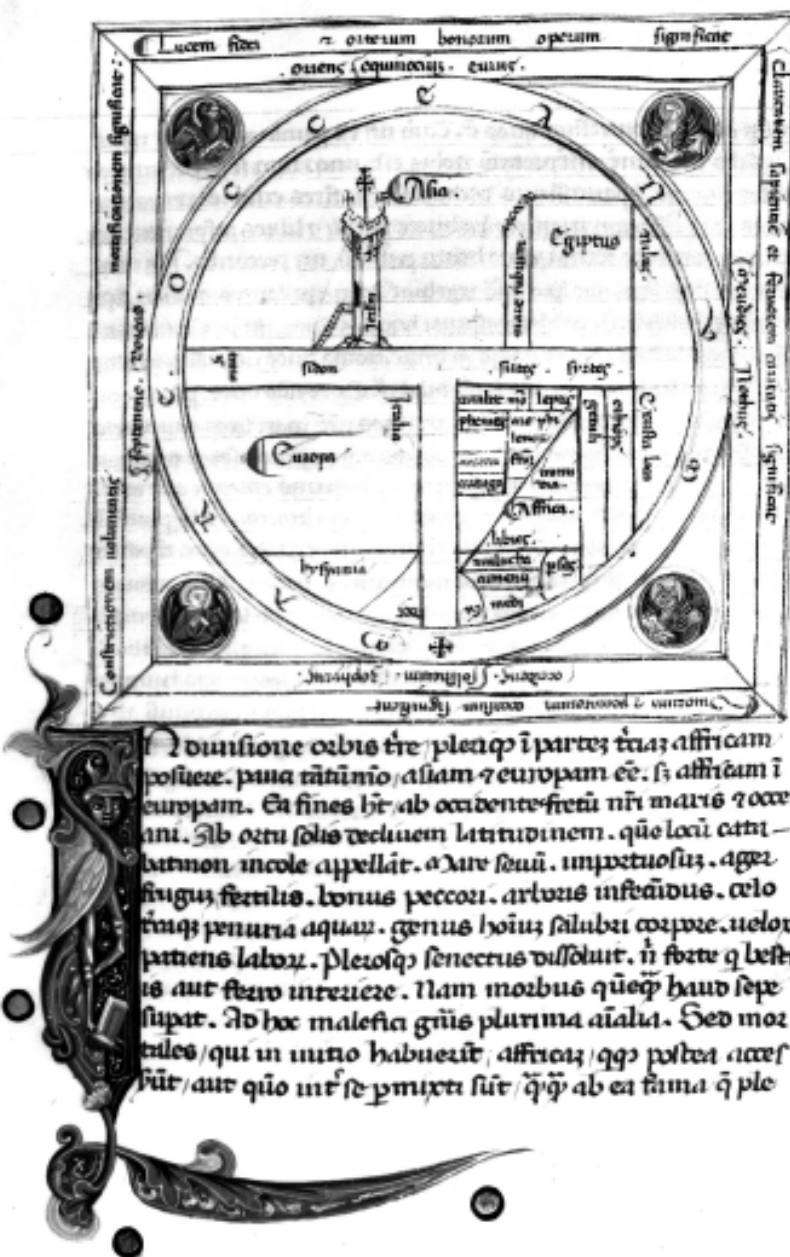
Fig. 5

Fig. 6 – This map is from a fourteenth century copy of a Sallust manuscript. It shows the accepted tripartite division of the circular world. In Europe only the name of the continent and two countries of *Italia* and *Hyspania* are shown. In Asia beside the name of the continent, river *Nilus* (Nile), *Egypt* and *Mare Rubrum* (Red Sea) are mentioned, while the tall rising tower bears the legend *Jrslm* (Jerusalem).

In the bodies of water dividing the world into the three continents, the Mediterranean bears no legend. The left arm of the T is inscribed *Tanais*, but the right arm, which should have borne the name Nilus, is only connected to the Nile at the right extremity, where the *Nilus* is shown as a vertical line. Near the Nile the land is described as *Exusta* (parched), a reference to the southern parched areas. The central part of the T bears the legends of *Sidon* and *Sirtes* (twice). The water surrounding the whole of the circular landmass is inscribed *Mare Oceanum*.

In Africa the picture is completely different. There are 15 toponyms and the countries of *Phoenicea*, *Carthago*, *Ethiopia*, *Numidia* and mountains of *Catabatmon* are shown. At the centre bottom (Western Africa) the names of the three tribes of *Armeni* (Armenians), *Medi* (Medes) and *Perside* (Persians) are singled out. These are the people, that according to Sallust settled in North Africa, giving rise to the North African tribes of today.

At the bottom of the map where the Mediterranean connects to the surrounding ocean, at both sides of the inlet, the corners of the mainland are separated by borderlines and the inverted legend straddling these corners reads *Gades*, referring to the Spanish port city of Cadiz.



From Sallustius, 14th century.
Bibliotheca Marciana, Venice.
Ms. Lt. Z, 432 (1656), f. 40r.

Fig. 6

2 – MACROBIUS

Roman philosopher and writer, Ambrosius Theodosius Macrobius (flourished around 400 CE), best known for his work *Saturnalia*, was an adherent of the theory of the spherical earth, divided into climatic zones. *Saturnalia* contains a text of *Exposition in Somnium Scipionis ex Cicerone* (*Commentary on Cicero's Dream of Scipio* or in short – “Scipio’s Dream”), which was very popular in the medieval times. Macrobius based his ideas on the writings of Eratosthenes, Virgil and others, who were the proponents of the Zonal division of the spherical earth.

Publius Cornelius Scipio Maior (235-184 BCE), who was also known as Africanus and his adopted grandson and namesake, Scipio Minor (185-129 BCE) were both politicians and generals in the Roman army, who fought against Carthage, the latter being instrumental in the final siege and sack of the city. In Scipio Minor’s dream Africanus takes him to the heavens and tells him:

*“Look at all the different zones enveloping the earth; the two most widely separated from one another, at opposite poles of the heavens, are fixed with an icy cold, while the midmost zone burns with the heat of the sun. Only the two zones between these extremes are habitable..... If you look at your own northern zone, you can’t help but notice how small a section of this region can be regarded as yours. The territory you occupy, your vast Empire, is nothing more than a small island, narrow from north to south, a bit wider east to west, surrounded by the sea, which is known as the Atlantic.”*²⁸

After the tripartite T-O type maps, the Zonal world maps were the most commonly used. According to the zonal theory, as mentioned earlier, the earth was divided into five climatic zones, these being the two frigid, two temperate and one central torrid zone. In the Northern Temperate zone, which was supposed to be the only inhabited part of the world, Macrobius’s landmasses are strikingly similar to those described by Ptolemy, complete with its seas, oceans, the continents and other geographical details.

Macrobius believed that the landmasses on the surface of the earth must be distributed such that their weights are balanced. In other words, the land mass of the Northern hemisphere must be balanced with an equal land mass in the Southern hemisphere, therefore if Europe, Asia and

part of Africa were located in the north, then there must be another large land mass in the south to counterbalance the above. This imaginary continent is shown on all Macrobius’s maps. However, this mass and its possible inhabitants, the Antipodes (see footnote 16), raise some logistical problems, since an area separated from the north by an impassable zone could not have any population purportedly descended from Adam and Eve and cannot be reconciled with the Scriptures. This problem was “resolved” by Cosmas, when he “proved” that the world, according to the Scriptures is a flat rectangle, consisting of the inhabited world and its surrounding ocean only. See Chapter 2, Part 5.

Macrobius’s southern continent is similar to that described in Pomponius Mela’s first century manuscript entitled *De Chorographia*.²⁹ Macrobius was bold enough to assume that similar to the balancing act applied to the landmasses in the northern and southern halves of the Eastern hemisphere of the known world, there must also exist landmasses on the unknown Western hemisphere of the globe, which would act as the counterbalancing weights to the landmasses of the Eastern hemisphere. This theory became reality when, at the end of the fifteenth century, over a millennium later, Columbus discovered the Americas, with their northern and southern continental divisions.

This is not the only parallel between the writings of Macrobius and Pomponius. In his *De Chorographia*, Pomponius also talks about the five climatic zones, asserting that the northern temperate zone is the habitable part of the world as we know it, hence all the three continents of Asia, Africa and Europe are located in that zone of the world. This is exactly what Macrobius says and shows in his maps.³⁰

In Macrobius’s world the northernmost zone is the Glacial Sea, a frozen expanse without habitation. To its south lies the Northern Temperate zone, which is the inhabited world as we know it. Then comes the Central Torrid Zone, with a sea of strong currents flowing in two great opposing circles, whose collision causes the tides. This zone is so dangerous and hot that mankind cannot live in it or traverse it. At its south lies the Southern Temperate zone where the Antipodes dwell (*Temperata Antipodum*) followed by the Unknown Southern Frozen zone (*Nobis Incognita Frigida*), frozen and uninhabited.

Macrobius’s manuscripts were very popular and many copies of the *Commentary* were made. These manuscripts date mainly from the ninth to the fifteenth centuries. From

²⁸ Macrobius, Ambrosius Aurelius Theodosius - *Commentary on the Dream of Scipio* - Translated with an introduction and notes by William Harris Stahl, New York, 1952.

²⁹ Chorography is the art of drawing or delineating areas and provinces on a map.

³⁰ Mela - *Description of the World*, 1998., Ch.1 para. 3.

the numerous Macrobius manuscripts, some 150 have reached us complete with maps. In these maps the climate zones are named and in the Northern Temperate zone the outline of the landmasses are augmented with toponyms such as Mare Caspium, Mare Rubrum or Indicum. Some of his maps also include the names of cities such as Babylon, Jerusalem and Alexandria. Macrobius's world map later appeared in many printed editions and in the majority of these printed maps Asia, Europe and Africa are mentioned some of which also include the following, from West to East: Britannia, Italia, Espania, Gallia, Armenia, Parthia and India. In Africa the country of Ethiopia and the Red Sea are commonly shown.

It is interesting to note that in medieval cartography all maps were oriented with East at the top, whereas Macrobius opts for North at the top, the legacy of

Pomponius and the other ancient Greek geographers, of which Ptolemy was also a follower.

During Macrobius's time the church paid little heed to the existing theory of a spherical earth, the only inconsistency arising when Macrobius separated the Northern and Southern hemispheres with a torrid zone, impassable even by Noah's descendants, throwing into question the existence of the Antipodes (or other creatures for that matter) in the Southern Hemisphere. These theories and assumptions came to be strongly disputed by Cosmas, as discussed in Section five of this chapter.

Two of Macrobius's maps are depicted in the following pages. In addition there are two maps taken from a 1621 Armenian manuscript kept in the manuscript depository of Yerevan, Armenia, which includes these Macrobius type maps.



Fig. 7

Fig. 7 – This is a typical Macrobius map printed in 1518, where the sphere of the earth is divided into the five climatic zones. The map is oriented with north at the top, where the Northern, Frozen zone lies. Below it lies the Northern Temperate zone, which includes the whole of the inhabited world and most of the then known landmasses. A small part of Africa extends into the *Perusta* (Torrid) zone, too hot for living creatures. Most of this zone is taken up by *Alueus oceani* (turbulent sea), whose circulating currents oppose each other, creating the tides.

To the south of the central Torrid zone lies the unknown Southern Temperate zone, purportedly occupied by the Antipodes. This zone is called *nobis Incognita* that is “unknown to us”, implying that the creatures living in the zone are not descendants of Adam. It must be noted that Macrobius was considered as a pagan writer and his maps are bereft of any religious references.

In the Northern Temperate zone the landmasses shown in this map are those of Asia, Africa and Europe, none of them named, while the countries of *Britania*, *Ispania*, *Aethiopia Perusta*, *Armenia* and *India* are named. From the seas *Mare Rubrum*, the Red Sea is named.

Macrobius, *Teatro del Cielo*, *Somnium Scipionis*, 1528, Italy.
Private collection.
Size 6.3 x 6.4 cm.

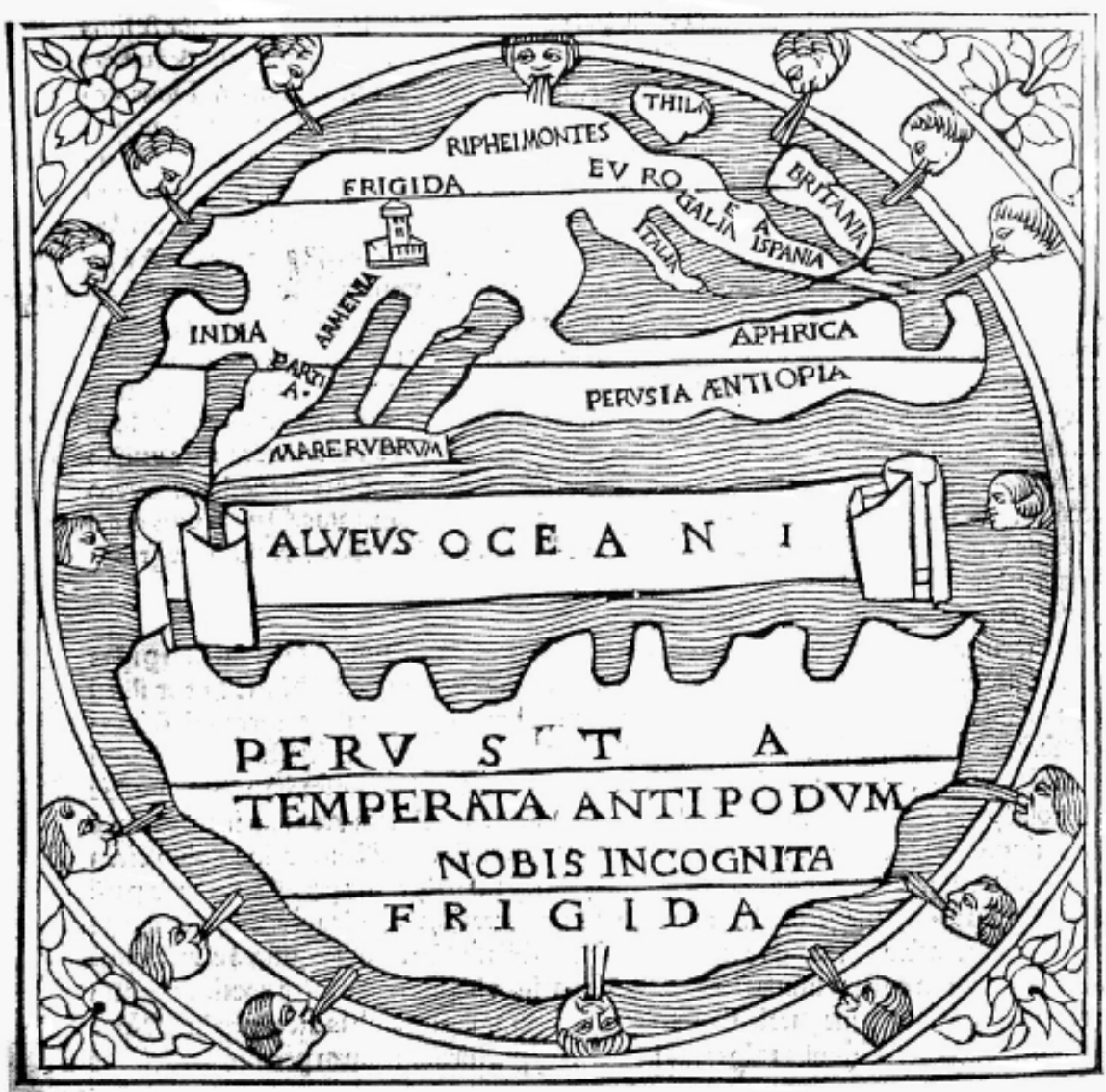


Fig. 8

Fig. 8 – This is from the Badius edition of Macrobius's *Somnium Scipionis* (Dream of Scipio), printed in 1515 in Paris. The one peculiarity of this map is that while it still has north at the top, its west and east orientations are reversed, such that India lies at the left end and Britain at the right end of the map.

The countries mentioned in this edition of Macrobius are *Britania*, *Thile* (Iceland), *Galia* (France), *Ispania*, *Italia*, *Armenia*, *Partia* (Persia) and *India*. The *Ripheimontes* indicated in the map are variously interpreted as the Carpathian Mountains, the Urals or Valdai Hills located north of Belorussia or southeast of St. Petersburg in Russia.

Macrobius, *Somnium Scipionis*, 1515, Paris.
 Private collection.
 Size approximately 11 x 11 cm.

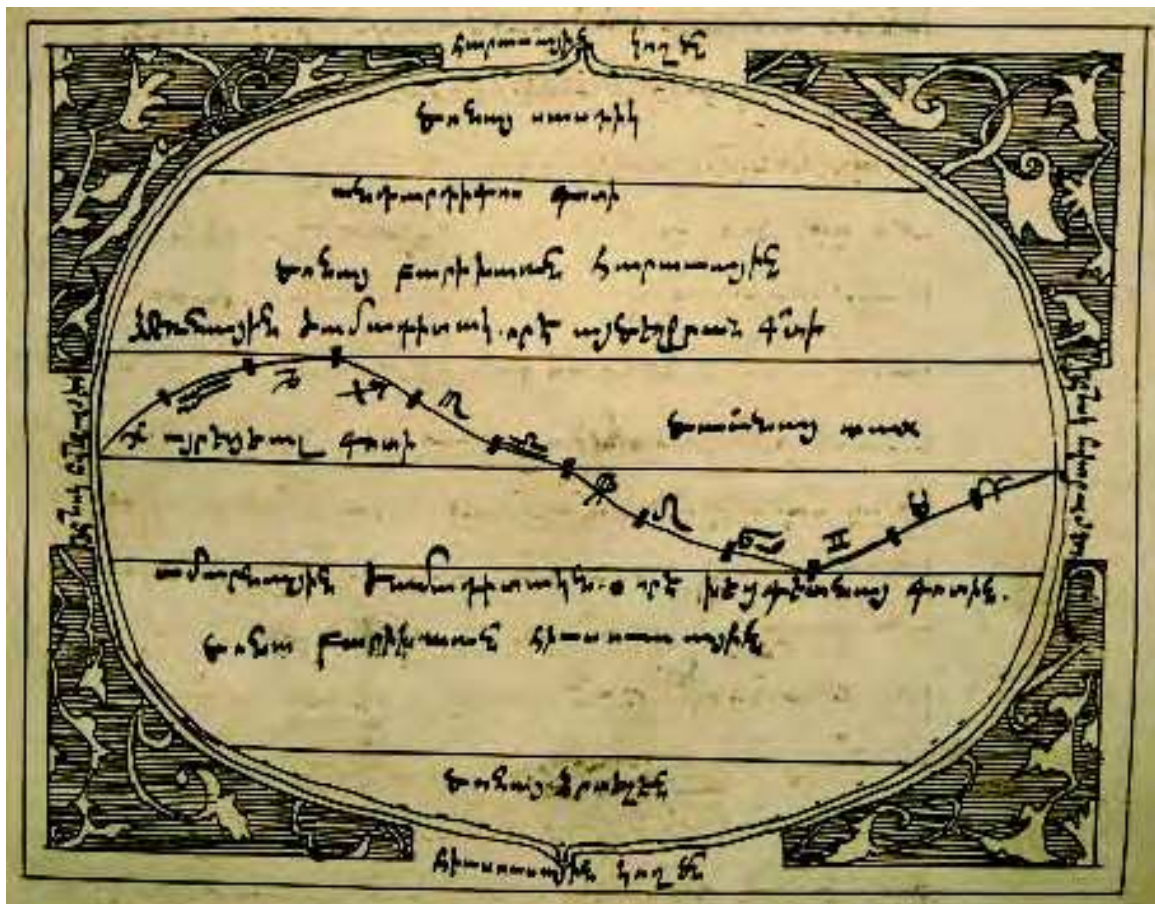


Fig. 9



Fig. 10

Fig. 9 – This is a Macrobius type zonal map in Armenian, taken from a manuscript translation of Petrus Apianus’s (1495-1557) sixteenth century work entitled *Cosmography*, translated into Armenian in 1621.

The manuscript depicts various tables and maps, one of which (shown on the left) is a zonal map of the world, where the globe is divided into five zones. In this map there is an additional line drawn in the centre, giving semblance of a sixth zone, though it is merely the line representing the Equator. It is noteworthy that the map has south at the top and thus is an upside down version of Macrobius maps. The signs of the Zodiac are also shown along a sinusoidal curving path. The zones are entitled from the south (top), Extreme zone, Southern Temperate zone, Torrid zone, Northern Temperate zone and Snowy zone. Here the globe is devoid of any sort of topographical outline or feature such as landmasses and seas.

Armenian translation of Petrus Apianus’s *Cosmography*, 1621.
Matenadaran, Yerevan, Armenia. MS 1780, f. 308r.

Fig. 10 – A second map taken from the same manuscript as Fig. 9 shows the earth divided in to the five principal zones, with north at the top, in line with standard Macrobius maps.

The Northern Temperate zone, which includes the entire inhabited world appears widened and is subdivided into nine narrow climatic zones. These sub-divisions are similar to the Greek and Islamic tradition of dividing the habitable zone into seven Climates, in Arabic “Ighlims”, but here two outside zones have been added to them and the total number of zones has become nine. These sub-zones bear the names of important cities or provinces that they cross. They are the zones of *Dania* (possibly Dacia), *Ripheos* (the Urals, Carpathian range or the Valdai hills), *Boristhenes* (the river Dnepr), *Pontus* (Black Sea), *Rome*, *Rhodos*, *Alexandria*, *Syene* (Aswan - in Egypt) and *Meroes* (the region of Sudan and Ethiopia), which are repeated as a mirror image on the other side of the equator, in the Southern Temperate zone. The names given to the last seven sub-zones is the same as those in the Greek tradition.

Armenian translation of Petrus Apianus’s *Cosmography*, 1621.
Matenadaran, Yerevan, Armenia. MS 1780, f. 310v.

3 – SAINT JEROME

St Jerome or Hieronimus was born in Dalmatia about 340 CE, and died in Bethlehem in 420. He spent his time in Rome, Constantinople and Antioch, where he was ordained as priest and made his mark as an outspoken and controversial figure. After much travel he settled in a Bethlehem monastery where he dedicated his life to the study and translation of religious texts and the Old Testament.

St Jerome was also an interpreter of the Bible, and translated the *Chronicles* from the work of Eusebius, Bishop of Caesarea (c. 260–340), which also contains place names and details of biblical locations and toponyms. The full title of this important collection is

“Presbiteri liber Herbraicum Quaestionem in Genesim, Ejustem liber de situ nominibus locum Hebraicum. Tabula Geogrpoahica ex opusculis S. Hieronimi descripto”. For simplicity it is mainly referred to as *“Liber locorum”* or *“Book of Places”*.

Although St. Jerome was a biblical scholar, his *Liber locorum* is considered an important geographical work, since in addition to the lists of cities and places, it also contains manuscript maps originating from the fifth century.

The copy of this work found in the British Library contains two maps. One of these two is the map of the world and the other – the map of Palestine, both are reproduced and discussed in this volume.

Fig. 11/11a - St Jerome’s “Map of the World” or more correctly map of the Middle East and Souteastern Europe dates from 420 CE, though only a twelfth century copy has reached us. The map shows the area from the Indian Ocean in the east to Italy in the west and from the Black Sea in the north to the Red Sea in the south. It is taken form the manuscript of *Liber locorum* kept in the British Library.

As per the accepted practice of the period, this map too is oriented with east at the top. Mountains are indicated by series of connected semicircles, rivers are shown with double lines and cities are indicated with various vignettes of buildings and castles.

The *Euxinus Pontus* (Black Sea) is shown elongated and is situated at the bottom left of the map. The *Caspiu mare* (Caspian Sea) is shown in part about three-quarters of the way up the page. At the top of the map is the Indian Ocean, which includes a number of islands. The Persian Gulf and the Arabian Sea are shown in part only, located at the top right of the map as two bays, both are coloured red. The higher is the Arabian Sea, into which the river Indus flows and the lower and larger one is the Persian Gulf, with Tigris and Euphrates pouring into it.

The numbers in the brackets appearing in the next paragraph refer to the numbers added on the map detail shown in Fig. 11a.³¹

Armenia is shown situated between the Black and Caspian Seas, bearing the inscription *“Armenie pile”* (11) – Gates or Pillars of Armenia, which is shown as a range of mountains connected to Armenia proper. The rivers *Euphrates* (6), *Tigris* (7) and *Arax* (5) have their sources at the two opposite ends of these mountains. These mountains can only be interpreted as what was later to be known as the “Armenian Plateau” or “Highland”, and the true source of these rivers. *Armenia Superior* (9, Greater Armenia) is shown upstream and between the two rivers *Euphrates* and *Tigris*. Below the legend *Armenia Superior* there is a vignette of a tent-like structure, which bears the legend *Arca Noe* (12, Noah’s Ark), sitting on an inverted mountain bearing the legend *Armenia* (27). This mountain is located at the southern end of a range of mountains named *Caspiu Porte* (22), which can only represent the mountain range extending westward from Mount Ararat, known as the “Armenian Chain, or Range”. A second *Caspiu Porte* (28) appears to the east of *Armenie Pile* (11), which refers to the passage between the eastern end of the Caucasus range and the Caspian Sea, near Derbend or Bāb-ul-Abwāb, (in keeping with Strabo’s descriptions).³² However, here these gates are shown in the middle of an unnamed mountain range, which corresponds with the Caucasian Mountains (26), and could only be the representation of the Daryal Pass or Gorge, the only passage between the two halves of

³¹ These numbers were added by the author in order to clarify the translations of the names.

³² Strabo, *Geography*, With English translation and notes by Horace L. Jones (Loeb Classical Library), Cambridge, Mass., Volume V, Books 10-12, 1928 and 2000. Book X! Chapters 2-19.

³³ Ptolemy calls it “Porte Albanie” (see Ptolemy, *The Geography*, 1991, Book 5, Ch. VIII and map *Tabula Secunda Asiae*) and in Armenian and Arabic it is called “Gate of the Alans” and “Bab-ul-Alan” (see Soviet Armenian Encyclopaedia, Vol. 3, 1977, Yerevan, p 104). According to website “Wikipaedia” as well as many scholars, the Daryal Gorge or Pass in antiquity was called “Caucasian Gates” and occasionally “Caspian Gates”. The latter name is normally given to the pass lying between the eastern end of the Caucasian Mountains and city of Derbend on the Caspian, which is the easier overland passage between the north and south Caucasian Mountains. This is also known as the Iron Gates or Alexander’s Gates. A similar error occurs in the Armenian dictionary (see Dictionary of Armenian Language, Venice, 1769, Vol. 2 Part 2, p. 235 and Venice, 1836, Vol. 1, p.640), where the Caspian gates are also called “Gates of the Alans”. The present name of Daryol or Daryal was given to this pass much later by the local Tatars, in whose Turkic language “Dar” means “narrow” and “yol” means “road”, thus the name “Daryol” given to Daryal in fact means “narrow-road”. There is a second, less plausible etymological explanation for this name. The pass in Farsi was called “Dar-i-Alān” (Gates of the Alans), which could be shortened to Dar-i-al, Daryal.



Fig. 11

a mountain range.³³ This passage named “Caspian Gates” also bears the title “Alexander’s Gates” or “Iron gates”, a reference to Alexander the Great, who purportedly commissioned its construction to keep the unruly northern races at bay. The region below (west of) these mountains is named *Armenia Inferior* (10, Lesser Armenia). The cities of *Edessa*, *Samosata* and *Charrhae* are shown as being in Armenia, towards the region of Mesopotamia. The two ranges named *Caucasus Mons* (23) and *Taurus Mons* (24) are erroneously located southeast of the Caspian Sea (1), meeting at an acute angle, from where another river flows northward.

Albania (18) is shown located west of the *Caspiu Mare* (1), near *Scithia Superior* and north of the *Araxis Fluss* (5), while *Colchi[s]* (19) is shown at the eastern shore of the *Euxinus Pontus* (2 - the Black Sea). Iberia is named *Hiberia* and is shown on the shore of the *Araxis Fluss* (between 11 and 16).

The map is peppered with errors and the placement of the cities and regions in the map leaves much to be desired. For example *Gallilea*, instead of being located east of the Mediterranean, is at its south and *Caucasus* and the *Taurus* ranges appear southeast of the Caspian instead of its west and southwest. Notwithstanding the confusion this may arouse, the map does contain the names of countries, cities and geographical features, among them Armenia, Albania, Iberia and Colchis.

A – The Seas

1. *Caspiu Mare* – The Caspian Sea
2. *Euxinus Pontus* – The Black Sea
3. The Mediterranean
4. The Persian Gulf

B – The Rivers

5. *Araxis fluss* – Araxes
6. *Euphrates*
7. *Tigriss fluss* – Tigris
8. *Tanais fluss* – Don

C – Area around Armenia, Albania, Colchis and Iberia

9. *Armenia Superior* – Greater Armenia
10. *Armenia Inferior* – Lesser Armenia
11. *Armenia pile* – Gates or Pillars of Armenia [Armenian plateau].
12. *Arca Noe* – Noah’s Ark and Armenia.
13. *Capadocia*
14. *Chaldea*
15. *Parthia*
16. *Adiapieni* – ancient country located in northern Mesopotamia.
17. *Hircanea* – near the Caspian Sea
18. *Albania* – Caucasian Albania, located west of the Caspian.
19. *Cholchi* – Abkhazia, by the shores of the Black Sea. Land of the Golden Fleece.
20. *Cilicia* – near the Mediterranean.
21. *Babilon*

D – Mountains and Ranges

22. Armenian Chain or Range, extending from Mount Ararat westward.
23. *Caucasus Mons*, The Caucasian Mountains
24. *Taurus Mons*, Taurus range
25. *Paropanissade Mons* – Possibly the Alborz range south of the Caspian, inside Iran.
26. Unnamed – Possibly the real Caucasus range, whose opening is named *Caspiu Porte*
27. Mount Ararat
28. *Caspie Port* – This name is given to the eastern passage between the Caucasian Mountains and Caspian Sea near Derbend, but here it is situated where the Daryal Gorge should be.

St Jerome, *Liber locorum*. Copy dating from the twelfth century.

British Library, London. Add. MS 10049 f. 64r.

Size approximately 24 x 36 cm.

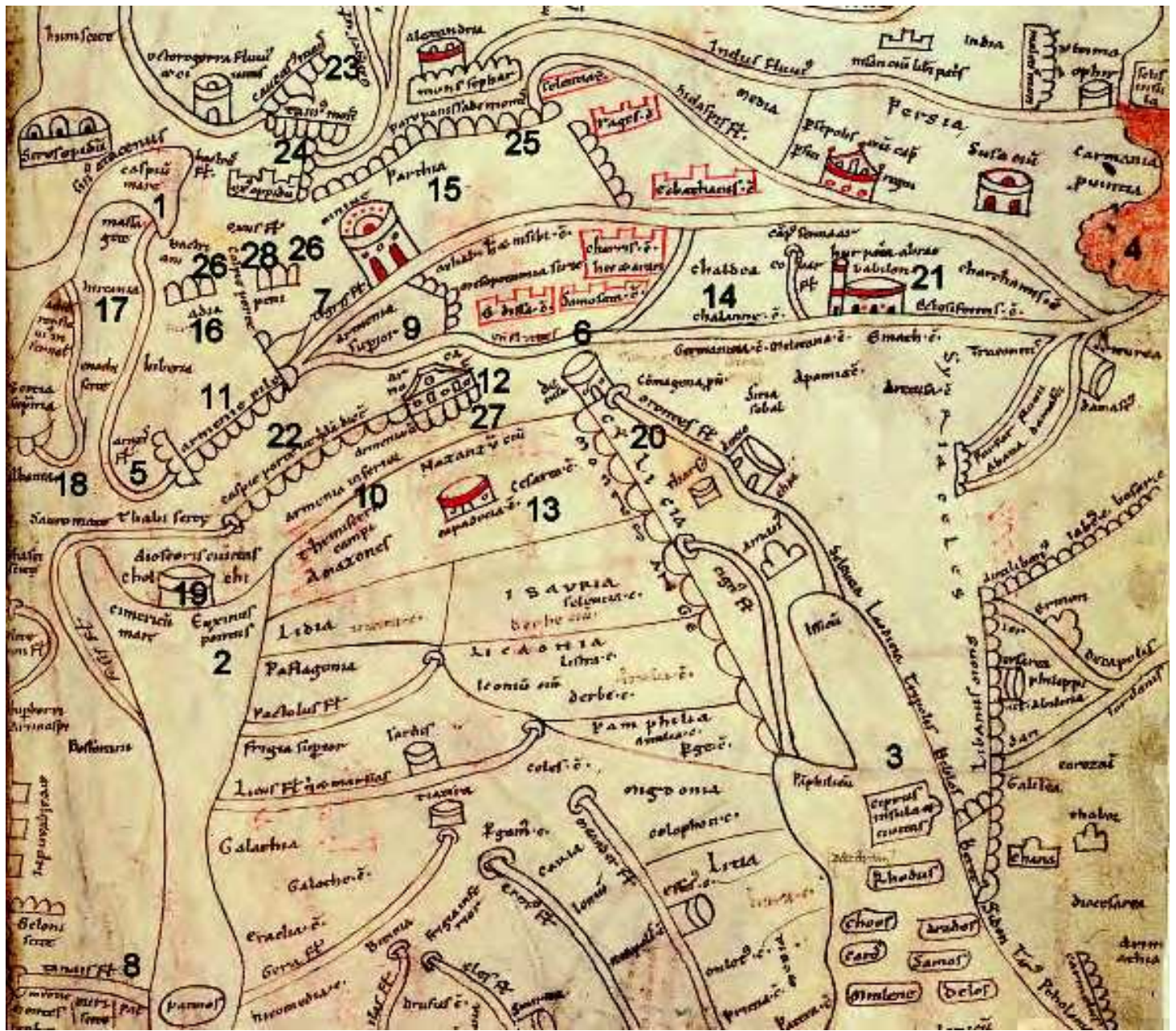


Fig. 11a

Fig. 12/12a – Since St. Jerome’s manuscript is about biblical names, it is unsurprising that the second map from *Liber locorum* be that of the Holy Land and its neighbourhood.

Here the mountains are given a near realistic appearance, while the rivers continue to be shown with double lines. Cities of primary importance are shown as vignettes of buildings with towers, while other settlements, mostly strung along the coast of the Mediterranean, are shown with vignettes of simple buildings. The area shown on the map extends in the south from the Arabian Sea and Egypt to Constantinople and the Caspian Sea in the north. In the vicinity of the Caspian, there are a number of countries, one of which is *Armenia*, the others being *Anthiokia*, *Hircania regio*, *Parthia*, *Assuria* (Assyria) followed by the provinces of *Babilonia regio*, *Chaldea* and *Mesopotamia regio*.

The oval shaped repaired area of the map contains *Mons Caucasus* (the Caucasus Mountains), from which flow the rivers *Phison* (Ganges), *Indus* and *Tigris*. As far as locating of the Caucasian Mountains is concerned, here too the mistake of the previous map is repeated. *Mons Armenie* (Armenian Mountains), which are the source of the river *Euphrates* are shown west of the Caucasian Mountains. At the lower end of this range (west) there is bulge, separated by a line, which is inscribed as *Arca Noe* (Noah’s Ark). Further west of these mountains, the *Taurus* mountain range can be seen. The extension of the land below *Taurus* is *Asia Minor*, with the city of *Constantinopolis* shown at its western (lower) end with a vignette of an inverted three-towered castle.

The largest town in the map marked with double circles and four gates bears the legend *Jrslm* (Jerusalem). *Mons Sion* can be seen near one of the gates, with *David’s Tower* rising from it. The mountain at the eastern (top) side of Jerusalem is *Mount Olive*. The area is filled with legends of biblical names. The red coloured seas at the top right are first the *Persicus Sinus* (Persian Gulf) and then the *Arabic Sinus* (Arabian Sea), both of which are shown as branching from the *Rubrum Mare* (Red Sea). Next to the Arabian Sea lies *Egiptus Superior*, with the river *Nilus*, whose sources are the two lakes. The river first runs from east to west and then turning sharply northward, passes by the *Pharos* lighthouse and *Alexandria*, reaching the Mediterranean.

Although the map extends to the Black and the Caspian Sea, it omits to mention Colchis, Iberia or Albania. For details around the region of Armenia see enlarged section of the map in Fig. 12a. The numbers added in blue denote.

1. *Armenia*
2. *Mesopotamia*
3. *Babilonia regio*
4. *Damascus*
5. *Parthia*
6. *Assiria*
7. *Hircania regio*
8. *Anthiokia*
9. *Mons Caucasus*
10. *Mons Ceraunis* (Caucasus and Taurus Mountains)
11. *Mons Liban*
12. *Mons Taurus*
13. *Mare Caspiu*
14. *Mare Galilee* - Sea of Galilee
15. *Eufrates fluss*
16. *Tigris fluss* - river Tigris
17. *Indus fluss* - river Indus
18. *Fison ut Ganges* - Phison or Ganges river
19. *Arca Noe*

St Jerome, *Liber locorum*. Copy dating from the twelfth century.
British Library, London. Add. MS 10049 f. 64v.
Size approximately 24 x 36 cm.

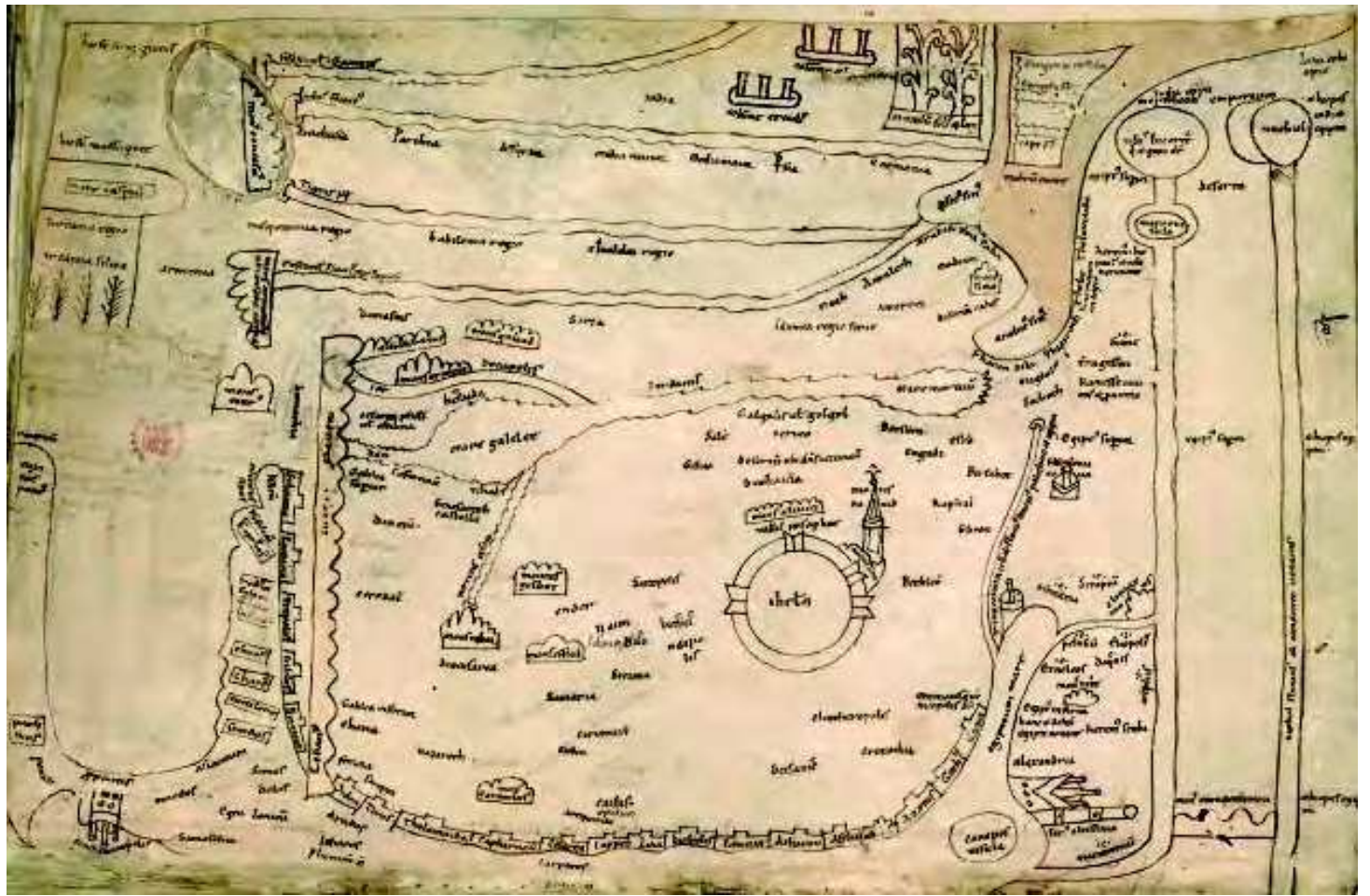


Fig. 12

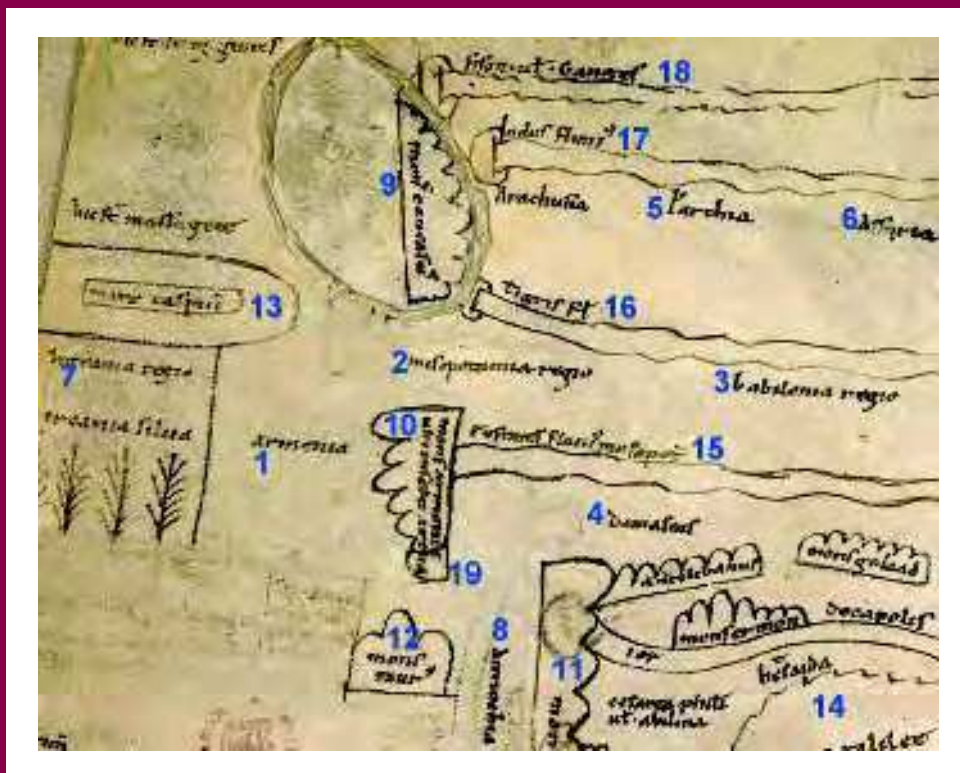


Fig. 12a

4 – PAULUS OROSIUS

Historian and theologian Paulus Orosius was born in Portugal around 385 CE and died in 420. After his studies in his homeland, in 413-414 he spent some time with St Augustine (354-430) at Hippo (situated near the present day city of Annaba in Algeria) studying theology. Later, in 415, he visited St. Jerome in Palestine and settled in Bethlehem.

His first works were concerned with religious controversies, for which he gained a certain reputation, but his most important work has been the *Seven Books against the Pagans* of which some 200 copies have survived. The book, written in 416-417 includes the history of the world for 5618 years of its existence. It starts with the description of the world, explaining its boundaries and describing an outline map of the world with little topographical data. The text mentions almost 300 toponyms but these names have almost no connection with the names appearing in the other parts of the book. The text of the manuscript does not directly refer to any accompanying maps, though the language is as if a map was being discussed and explained. The following are two extracts from the text of Orosius's "History".

*Our elders divided the world into three parts, all the globe of this mid-earth is surrounded by the ocean, which we call Gercecg, and they named the three parts by three names, Asia, Africa and Europe: though some say that there were but two parts, one Asia and the other Europe.*³⁴

Fig. 13 – The German cartographer Konrad Miller (1844-1933) has drawn a world map using all the names and data provided by Orosius. This is Miller's reconstruction, typically T-O in shape, with the Mediterranean Sea, rivers Nile and Tanais acting as the natural borders of Asia, Africa and Europe, oriented with east at the top.

In this map *Albania* is shown to occupy the area between the *Euxinus Pontus* (the Black Sea) and the *Mare Caspium*, north of the *Caucasus Mountains*, while *Colchis* is placed south of the *Mons Caucasus* and the *Porte Caspiae*, which should be the Daryal Gorge. The Caucasus Mountains are shown as a very long range of mountains extending from west of the Caspian to east of India.

Armenia (underlined red) straddles *Mons Taurus* and is the source of the rivers *Tigris* and *Euphrates*. Above *Armenia* the mountain range cutting into the *Taurus* has the legend *Montes Armeniae* (Armenian Mountains), which should be the Armenian Chain or Range and to its south, at the junction of the two mountain ranges there is a vignette of a gate indicating Gates or Pillars of Armenia (*Armenia pilae*). The northern part of these mountains is separated from the rest by a second gate named *Portae Caspiae* the Caspian Gates. To the east of the gates the range is named *Mons Caspiu* and to its north, *Caucasus*. Given their location, the Caspian Gates can only be reference to the Daryal Gorge the midst of the Caucasus range (see footnote 33).

The provinces near and south of Caucasian Mountains included in the Orosius maps are *Commagene*, *Asia Minor*, *Cappadocia*, *Colchi[s]*, *Albania*, *Mesopotamia*, *Parthia*, *Syria* and *Iberia*. According to Pliny *Hircania* is situated south of the Caspian Sea and the Caucasus Mountains, but here it appear northeast of the *Mare Caspium* (the Caspian Sea), which is shown as a bay connected to the *Scythicum Mare* (the Scythian Sea, part of the northern ocean).

Konrad Miller, *Die ältesten Weltkarten*, Vol. VI, Map 3.
Published in Stuttgart, 1898.
Private collection.

³⁴ Orosius, Paulus - *Seven books of history against the Pagans*, Translated from Latin by Irving W. Raymond. Records of Civilizations" series No. 28. New York, 1936. Book 1, Ch.1, Sec. 1.

³⁵ Orosius, Paulus - *King Alfred's Anglo-Saxon version of the Compendious History of the World*, London, 1855, Book 1, Ch. 1, Sec. 8.

When describing the nations he says:

"... from the river of Euphrates, west to the Mediterranean and north almost to the mountains, which are called Taurus, [is] the country which they call Armenia",

and further down the same paragraph

*".. and to the north of the mountains are the countries of Cappadocia and Armenia. Armenia is to the east of Cappadocia".*³⁵

Only four of the surviving Orosius manuscripts include some sort of contemporary or latter-day maps, most important of which is the map in the library of Albi, France, which has been appended to the chapter on Orosius's geographical work. Orosius states that "according to the ancients, the world is divided into three parts", therefore it is assumed that he was alluding to the T-O division of the earth and his maps were based on the tripartite world, divided by the Mediterranean Sea and the rivers Tanais and Nile. Although this map is said to have been prepared for Orosius, it is not a typical T-O type map, therefore one could extrapolate, not typically Orosian.

The Albi map contains some 50 place-names and from the designations that are mentioned in Orosius's text only 41 appear in this map. Paradoxically, 49 of the names in the book are to be found in Isidore's map of the world (See Chapter 2, Part 6). The map of Albi is discussed in Fig. 14.

The German cartographer and geographer Konrad Miller has drawn a map of the world as per the list of toponyms and descriptions given by Orosius (see Fig. 13).

P. Orosii

ad Hist. libr. 1. c. 2.

Mappamundi

adaptata.

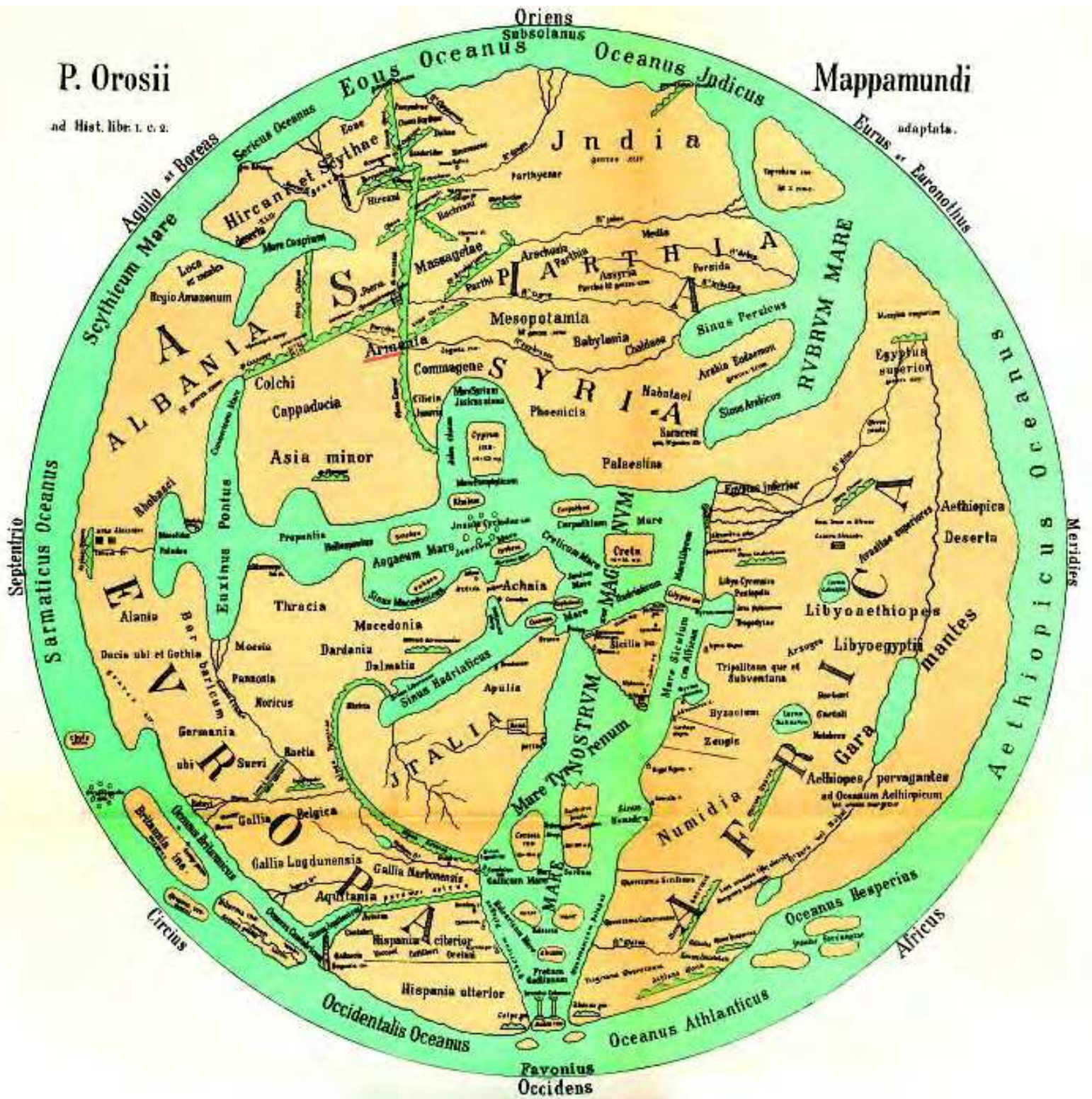


Fig. 13

Fig. 14/14a – This map, known as the Albi or Merovingian map is presumed to be specially made for Orosius's history book. Although the map does not fully comply with Orosian (T-O) types, it has nevertheless been inserted into a manuscript entitled *Miscellanea scilicet dictionarium glosae in Evangelia*, which contains some of the Orosius's chapters on geography, as well as other works. The map appears between the two chapters of Orosius's work. In the map the habitable world is pictured as oblong, with rounded corners and wrapped around the Mediterranean Sea.

The map is oriented with east at the top and incorporates only a few Christian references. There is no depiction of Paradise, Noah's Ark or Palestine. The only Christian features shown on the map are the triangular *Mount Sinai*, *Judea* and *Jerusalem*. The four rivers of Paradise are shown flowing into the surrounding oceans. Due to the poor condition of the original, an enhanced copy is also shown. Fig. 14a is the redrawing of the Albi map, where the names of the provinces are clearer to see.

The map shows the inhabited world in an oblong and wide strip form, wrapped around the Mediterranean Sea and externally surrounded by the all-encompassing Ocean. Because of this distortion, all the continents too have been squeezed into a narrow and oblong form. The surrounding Ocean is shown with three bays. On the left of the map (north) the bay represents the Caspian Sea, which was the accepted norm during the old Greek as well as early medieval times. The remaining two bays at the right (south) of the map represent the Persian Gulf (top) and the Red Sea. The world is thus divided into the three continents by the river Nile and the Black Sea (*Pontum*).

The Mediterranean occupies the central area of the map and is shown with a number of bays and islands. There are five islands, which bear the legends of *Sicilia*, *Sardinia*, *Corsica*, *Creta* and *Cypra* (Cyprus). The bays or gulfs are located at the northern shores of the Mediterranean, the first being the Ligurian Sea, the second the Adriatic and the third represents the combination of the Aegean Sea and the Black Sea, here named *Pontum*. The first peninsula from the west (bottom) of the map is Italy, followed by Greece and then Asia Minor (unnamed). The eastern end of the Mediterranean bears the name of *Ionum Mare* (Ionian Sea) inscribed in the upper middle area of the sea. In the surrounding ocean *Britania* is shown as the sole island.

All the countries are divided by boundaries, itself uncharacteristic of this type of map. However, despite most of the countries in Europe remaining nameless, the cities of *Rome* and *Ravenna* are singled out. This can possibly be attributed to their political and religious importance. Rome was known as an important religious centre and Ravenna was the seat of the representatives of Byzantium in Europe, hence their inclusion on the map.

Africa, located to the west of the *Nilus* includes six toponyms: *Mauritania*, *Numidia*, city of *Cartage*, *Libia*, *Ethiopia* and *Egyptus*. The river Nile is shown flowing between the Red Sea and the Mediterranean, while the river *Ganges* is placed near *Ethiopia*. Asia includes *Armenia* (written inverted and highlighted yellow in Fig.14a) *India*, *Media*, *Babillonia*, *Persida*, *Antiocia*, *Arabia*, *Alexandria*, *Judea* and *Ierusalem*. Another unmarked double line (possibly the Euphrates) connects Armenia with the Persian Gulf. No other countries are mentioned south of the Caucasus.

The map differs from the description of Orosius in several respects: it is not shown in tripartite division, it does not name the two continents, and the river Tanais (Don), which is usually shown dividing Europe from Asia, is absent.

Map of Albi. Around 775 CE.
 Mediathèque Pierre Amalric, Albi. France,
 MS 29, f. 57.
 Size 29 x 23 cm.



Fig. 14a



Fig. 14

5 – COSMAS INDICOPLEUSTES AND RELIGIOUS CARTOGRAPHY

Cosmas of Alexandria was a Greek sailor living during the sixth century, who traveled to India and Africa. After his return to Alexandria he became a zealous Christian monk and around 547-549 CE wrote his book *Topographia Christiana* or “Christian Topography”. Because of his travels to India and Taprobana (Ceylon), he came to be known as Cosmas Indicopleustes, meaning “Cosmas, the one who traveled to India”. It must be noted that during the period in question the name “India” was used rather indiscriminately, often used as a catch-all reference to any country or region east of the Classical world.

Until that time, even the most influential fathers of the church paid little attention to, or advanced any argument against the still surviving Greek theory of the spherical earth (see the previous parts). But here was a monk, who had traveled the world, contending that all these theories were incorrect. Cosmas’s aim was to eradicate the accepted belief about the geocentric spherical earth and base geography on the teaching of the Scriptures. He advanced the idea that the world was flat, and that the heavens were in the shape of a box with a double lid, one flat and the other curved (the firmament). The heavenly bodies would be situated between the two top layers, their movements controlled by the angels (see Fig. 16). He goes on citing passages of scripture which he personally interprets and uses in order to support his thesis, arguing that the earth was created according to the Tabernacle, which the Lord revealed to Moses on Mount Sinai, as being a rectangular area with a tent like cover, with a length twice of its width, with sides made of crystal. Cosmas even gives the dimensions and the descriptions of the layers of the tabernacle-shaped heaven and earth. He also declares that any concept regarding a spherical earth is “pagan”.³⁶

Cosmas’s name is mentioned in the Armenian language seventh century geographical treatise *Ashkharhatzuytz* (Ašxarhačuyč - World Mirror), attributed by some to the fifth century Armenian historian Movses Khorenatzi or seventh century geographer and scientist Anania Shirakatzi. The work contains quotes from *Christian Topography* and its author is said to be one *Constantine of Antioch*. The text mentions that according to the author after the Flood the Ark came from the east and settled in the inhabited world, echoing exactly what

Cosmas says in his work. Ashkharhatzuytz adds that this jarred with Ptolemaian theories, who did not believe that the world was surrounded by the oceans. The above paragraph supports the belief that the work is that of seventh century scientist Shirakatzi, since the same paragraph can be seen in various copies of the manuscript of Ashkharhatzuytz.

After the Middle ages, the book languished in obscurity until 1706, when it was published in its entirety by a Benedictine monk, Father Montfaucon, as part of a larger collection of works. Three originals of Cosmas’ manuscript have reached us. One is in the Vatican, containing Cosmas drawing of the world, which he says is based on the writings of Ephorus (405-330 BCE). The other extant manuscripts are in Florence and Mount Sinai and date from the eleventh century. The manuscripts consist of twelve books, which contain other diagrams and drawings that Cosmas uses to argue his case. He then goes on to write about his travels to Persia, India, Sri Lanka and the Red Sea and describes some of what he saw, even drawing pictures of the some of the strange animals in his manuscript. The following are a few quotations from Cosmas’ book.

As an opening gambit to his theories, he says:
*Against those who, while wishing to proffer Christianity, think and imagine like the pagans that the heavens is spherical.*³⁷

An then to “prove” this he continues:
*If two men on opposite sides place soles of their feet against each, whether they chose to stand on earth, or water, or air, or fire, or any other kind of body, could they both found to be standing up?*³⁸ (See Fig. 17)
*And how again, when it rains upon both of them, is it possible to say that the rain falls down upon the two, and not that is fall down upon the one and up the other?*³⁹
*with even greater wisdom ye suppose that there are men walking all the earth over with their feet opposite the feet of other men?*⁴⁰

Some of Cosmas’s theories are illustrated in the Figures 15-17, while Fig.18 depicts his map of the world.

³⁶ Cosmas, *Christian Topography*, translated from Greek by J.W. McCrindle, London 1897. p.146

³⁷ Ibid. Book 1, p.7

³⁸ Ibid. Book 1, p.17

³⁹ Ibid. p.17. Underlines are author’s.

⁴⁰ Ibid. Book 2, p.146.

Fig. 15 – This is the reconstruction of the Tabernacle, as God was supposed to have described to Moses, depicted in the website of “Tabernacle”. It consists of the open area with an enclosed tent, which was supposed to be the shape of the inhabited world.



Fig. 15

Fig. 16 – This is the universe as drawn by Cosmas in his manuscript of *Christian Topography*, now in the library of Mount Sinai Monastery. According to Cosmas the flat world has a large protruding bulge in the north, which is quite high and makes the oikumene (inhabited world) slope towards the south. The sun and the moon revolve around this bulge and when invisible, are concealed hiding behind it.

The firmament is the curved canopy of the universe, which holds the stars and where God resides. At the two sides of the box the legend reads The Kingdom of Heaven. The sun shown on the left is described as “The sun sets” and the higher sun at the right is described as “The Sun rises” .

The world map of Cosmas in *Christian Topography* shown in Fig. 18 has a rubric which relates to the shape of the universe and hence is relevant to Fig. 16. Loosely translated it says:



Fig. 16

*The extremities of the earth on the four sides of it are attached to the extremities of the heaven, forming a tetragonal shape, a kind of a cube. In the upper part the heaven is arched, along its length and thus it forms an oblong vault. In the middle the firmament is fixed, which makes it into two spaces.*⁴¹

The described shape can clearly be seen in this reproduction.

Cosmas, *Christian Topography*. Eleventh century copy.
Mt. Sinai Monastery. Sin.gr. 1186, fol. 69r

⁴¹ For the Old Greek text see the rubric under Fig. 18.

Fig. 17 – This is one of the figures that Cosmas includes in his book in order to “prove” that the earth could not possibly be spherical, adding:

If two men on opposite sides place soles of their feet against each, whether they chose to stand on earth, or water, or air, or fire, or any other kind of body, could they both found to be standing up?

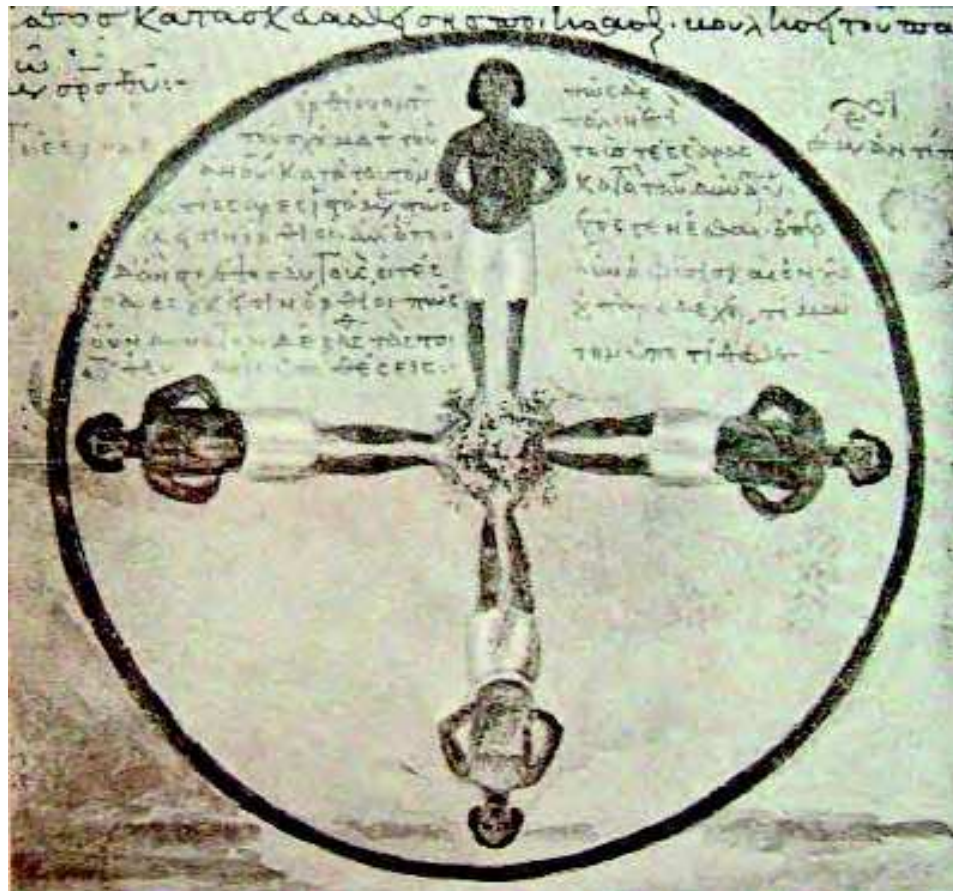


Fig. 17

Fig. 18/18a – Here is the sketch of the World as drawn by Cosmas around 547-549 CE in his manuscript of *Christian Topography*. The inhabited earth is the rectangle enveloped by the blue oceans, oriented with north at the top. Paradise is at the east separated from the earth by a narrow stretch of land. The four principal winds are represented by colourful vignettes of horn blowing heads inside red circles, located in the surrounding ocean. The surrounding ocean itself is inscribed OKEANOS (Ocean) with large capital letters. The legends located at the top, inside the external landmass describes it as:

The region where people lived before the deluge, now inaccessible to humankind.

The earth is presumed to be a flat rectangle, with a single high rising protrusion at its northern edge, around which the sun and the moon revolve and behind which they are concealed when invisible (see Fig. 16). The known inhabited region of the world (oikumene) coloured orange is outlined in the centre, including the Mediterranean (blue, but flaked) and some of its surrounding topography. This is encased in another rectangular strip of orange land - separated from the central part by the Ocean - where people used to live before the Flood, to the east of which is Paradise, brimming with fruit-bearing trees, shrubs and colourful flowers. The four green coloured rivers emerge from Paradise, passing through the external world and under the ocean, emerge inside the oikumene, to continue running their known courses. The map does not contain names of countries and the legends refer mainly to geographical areas, rivers and seas.

The Armenian language seventh century geographical treatise *Ashkharhatzuytz* (Ašxarhačuyč - World Mirror), refers to the same quotation and states;

according to Constantine of Antioch's [Cosmas] Christian Topography "people lived in the east and came to the central region [oikumene] in the Ark".⁴²

replicating the text appearing in Cosmas' ocean (see also item 15 below).

Some of the important features of Cosmas' earth are indicated by the numbers superimposed on the original map, shown in Fig. 18a:

A – The Seas:

1. The Caspian Sea, which is the circular bulge protruding into the land from the north.
2. The Romaic Gulf (Mediterranean Sea) is the large sea extending inland from the west.
3. The first northward protruding branch from the Mediterranean is the Adriatic Sea and
4. The second branch is the Aegean Sea, which extends northwards through the Sea of Marmara (a bulge), continuing north.
5. This extension leads to the Black Sea and the Sea of Azov.
6. The first circular bulge in the south is the Arabian Gulf (the Red Sea)
7. The second bulge is the Persian Gulf and the Arabian Sea.

B – The four rivers of Paradise:

8. Euphrates, which flows from Paradise, passes through the outside world, sinking underground it emerges somewhere south of the Caspian and continues its flow to the Persian Gulf.
9. Tigris, which also flows from Paradise, going underground and emerging south of the Caspian, continuing into the Persian Gulf.
10. Phison or Indus, which flowing out of Paradise crosses the lands external to the inhabited regions of the earth, passes under the surrounding Ocean and flows into the Arabian Sea.
11. Gihon, which traverses the land outside the known world, approaching and crossing the surrounding Ocean from the south, eventually flowing into the Mediterranean.

C – Other features shown include:

12. Anatolia (Asia Minor).
13. Paradise, the Garden of Eden, at the east of the inhabited land, full of trees and flowers.
14. The all embracing Ocean, surrounding the inhabited lands.
15. The world beyond the Oceans, bearing the legend *where mankind used to live before the Flood*.

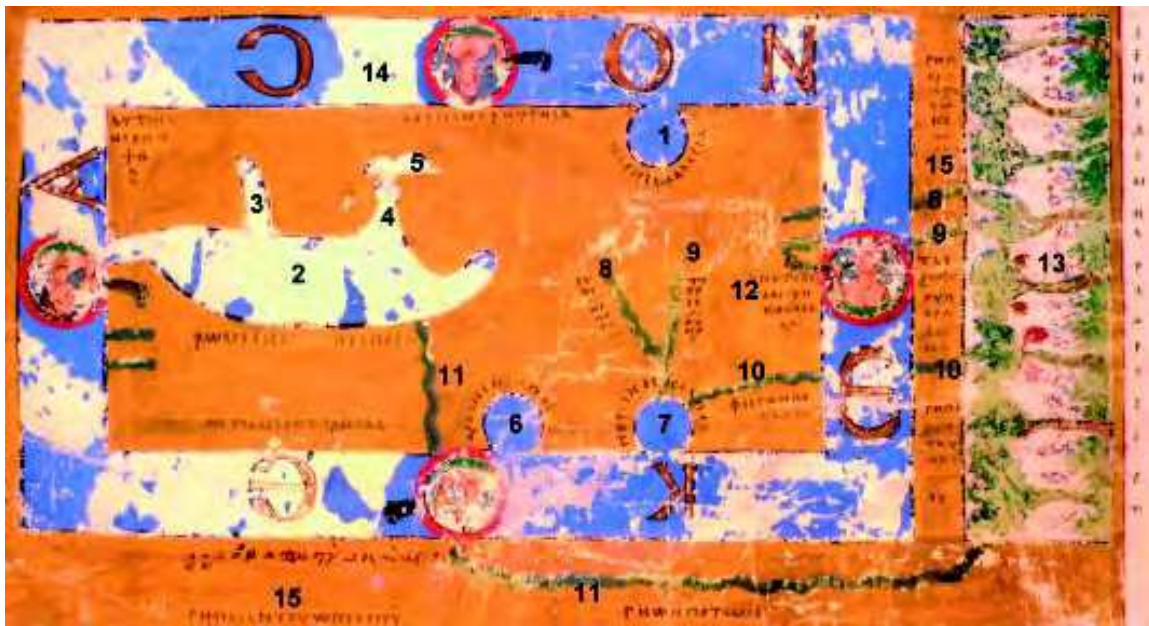
It must be mentioned that the idea of rivers running underground or under the oceans are supported by the Bible and by Pliny (only regarding the Nile). For translation of the rubric underneath the map see the descriptions of Fig. 16.

Cosmas, *Christian Topography*. Original sixth century. Copy from 7-8th century.

Bibliotheca Apostolica Vaticana, the Vatican. MS Vat. gr.600, f. 40v.

Size 31.5 x 23.3 cm.

Fig.18a



⁴² Ashkharhatzuyz MS copies - Venice St. Lazzaro MS 1245 p.5 and Yerevan, Matenadaran MS No. 582, f.167b.



Fig. 18 – Cosmas map of the world

6 – ISIDORE OF SEVILLE

Bishop Isidore of Seville, also known as St. Isidore was one of the most influential religious leaders of the medieval era. He was born in Seville about 560 CE and died in 636. After the death of his elder brother Leander, he became the head of the See of Seville and set about reorganising the interrelationship of the various ethnic groups that constituted the population of his Hispano-Gothic kingdom, which included the Goths, Visigoths and others. Realising that the spiritual and material well-being of a nation depended on the assimilation of foreign elements, he utilised all the tools available to him through religion and education in order to achieve this goal.

Isidore encouraged the study of Latin and Hebrew, law and liberal arts and long before the Arabs discovered Greek philosophy, he had introduced Aristotle to Spain. He also compiled a most comprehensive collection of universal knowledge of the classical and latter learning. Isidore was the last of Christianity's ancient philosophers and a most influential figure throughout Europe.

Among his writings one of the best known is *Etymologiae* or "Origins", which consists of twenty books, each on a different topic. These include medicine, law, God, Church, language, man, nature, animals, the world, war and many others. It was written on the encouragement of the Bishop of Saragossa and was

completed shortly before Isidore's death. This is a vast opus, which includes almost all the knowledge existing until the time of its conception. It was considered as a repository of classical knowledge and was widely used in medieval times and even up to the Renaissance period, when it was reprinted many times. Book thirteen of the manuscript is entitled "The World and its parts". Most of the information collected in this volume is taken from the writings of Solinus (third century BCE) and Pliny (23-79 CE). Chapter fourteen is entitled "Of Physical Geography".

His output includes many other scriptural and theological works, a collection of which was printed in Paris during 1580. Amongst his works, most prominent are *Differentiae* - explanation of differences of words and objects, *Proemia* – a description of the books of the Bible, *De Natura Rerum* or "On the nature of things" description of the universe as known during the seventh century and *Chronica* – history of the world from its creation until Isidore's time.

The world maps included in the manuscript of *Etymologiae* vary immensely. Some are simplest type of T-O maps and others display a mixture of styles and are more elaborate. In the following pages four representative samples of Isidore's world maps, dating from the eleventh to thirteenth centuries are reproduced and discussed.

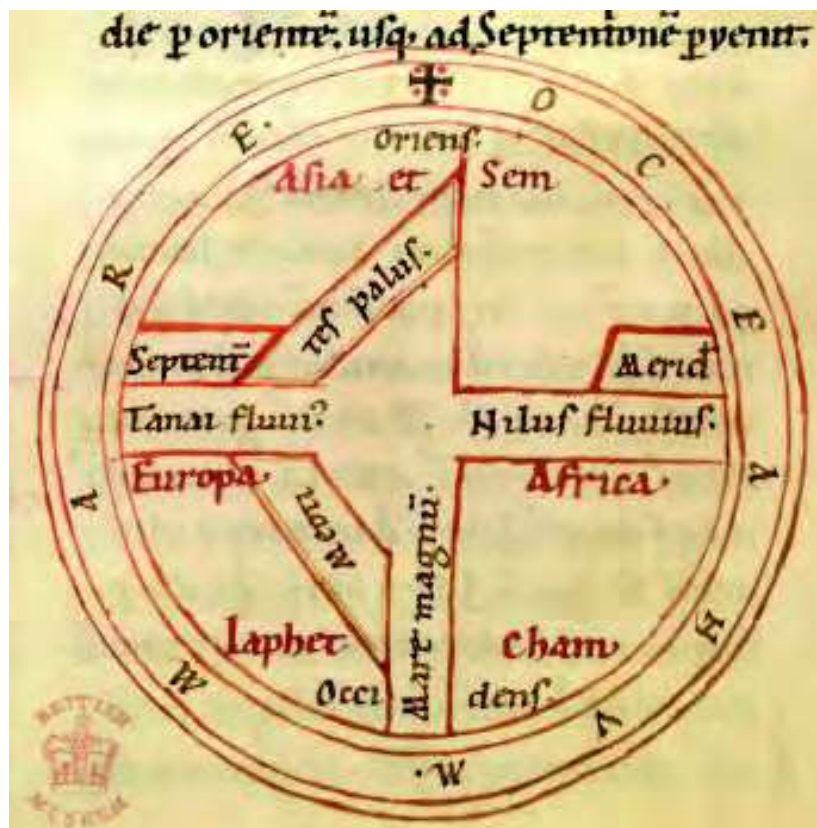


Fig. 19

Fig. 19 and 20 – This T-O map is from a seventh century manuscript of the *Etymologiae*, copied in 1136 CE. It is contained in the chapter 14 of the book and is entitled “La Terra” and is less ornate than the other three Isidore maps reproduced in the following pages. It is oriented with east at the top and names only the three continents and the waters dividing them, namely the rivers *Nile* and *Tanais* (Don), and *Mare Magnum* (the Mediterranean Sea). No names of countries and provinces are shown.

In addition to the details shown on Isidore’s other simpler T-O maps, this also contains the additional triangular shape shown near *Tanais fluss* (river Don), which is the Sea of Azov, shown as *Meotites Palus* (literally, the Azov Marshes or Lake).

In Fig. 20 one can see part of the written text accompanying the map, where the description of various countries of the region of Caucasus are given. The text relating to Albania is freely translated as:

located at the west of the Caspian Sea, which is connected to the northern ocean and extends up to the Azov Sea.

The free translation of part of the text on Armenia reads as:

Armenia is named after Armenus, the companion of Jason of Thessaly.It is located between the Taurus and Caucasus Mountains, Capadocia and the Caspian Sea. Here the river Tigris is born from the mountains where the Ark rested after the deluge. It consists of two parts, Upper [Greater] Armenia and Lower [Lesser] Armenia.

Concerning Iberia it says:

Iberian region of Asia is located between the Pontus and Armenia.....

Fig. 19 – Isidore, Manuscript of *Etymologiae*, dated 1136. British Library, London. MS Harley 2660, f. 123v. Diameter 8.5 cm.

Fig. 20 – as above, f. 125v.

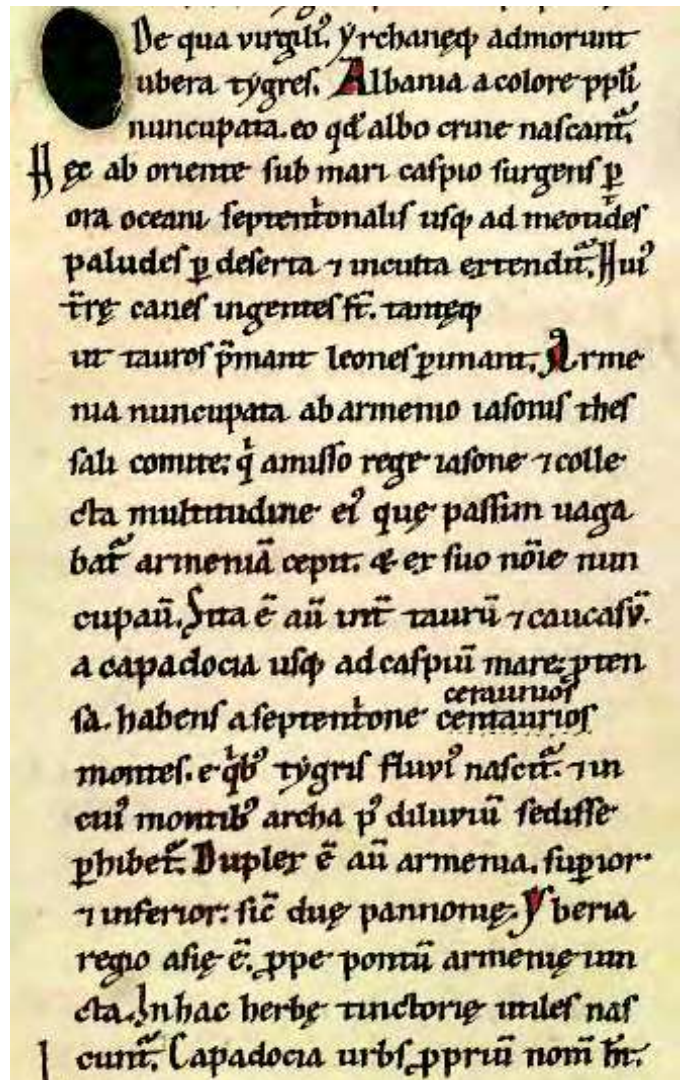


Fig. 20

Fig. 21 – This T-O map is from a copy of Isidore’s seventh century manuscript of *Etymologiae* kept in the library of Méjanes in Aix-en-Provence. The map is more elaborate than the others found in most manuscript and printed versions of the same book.

The circular T-O map is shown surrounded by *Oceanus*, which is the ocean that surrounds the inhabited earth. The earth has been divided into the three main continents of Asia, Africa and Europe by the “T” shaped waterways, the vertical stem of which bears the legend *Mari Magno* (the Great Sea – the Mediterranean), while its horizontal arms are named *Tanais* and *Nilus*. A red arrow-shaped triangular extension of the Mediterranean pushes into the Levant, bearing the legend *Paludes* (marshes). In other simple T-O maps of *Etymologiae*, this name is given to the Azov Sea or Azov Marshes, located at the northern end of the Black Sea, at the delta of the river Tanais (Don). (See also Fig. 19). Alternatively this could be the Nile Delta, which the mapmaker has erroneously located near the Holy Land. The sea near *Tanais* includes the legends of *Pullia* and *Constantinople*. Pullia (or Puglia) is shown here, since it was the starting point for the pilgrims who wished to travel to the Holy Land and Constantinople.

Europe bears the legends of 25 toponyms, including *Germania*, *Scythia*, *Mesia*, *Macedonia*, *Dalmatia*, *Pannonia*, *Roma*, *Tuscia* (Tuscany), *Galia* (twice), *Belgica*, *Italia*, *Hyspania*, *Cartago*, *Galiccia* and ten others.

Africa has been left devoid of any symbols or legends, whilst Asia includes some of the African provinces and towns as we know them today, such as *Etyopia* (Ethiopia), *Egyptus*, *Alexandria*, *Me[m]phis*, *[H]eleopolis* and *Tebes* (Thebes). The last three are situated on the banks of an unnamed river, which should be the true Nile. The city of Carthage, which is shown inside the territory of Europe should be “*Cartago Nova*”, which was the seat of the Carthaginian power in Spain.

In Asia the only religious connections of the map are the *Paradisus* (Earthly Paradise), shown at the eastern edge of the world (top) under the cross appearing inside the outer sea – (*Oceanus*), and cities of *Jerusalem*, *Bethleem* and *Jericho*. The four cardinal points of the map are marked with red crosses.

The area of Asia is filled with many toponyms, mostly being names of provinces and towns, including *Hyberia* (Iberia), *Albania* and two *Armenias*, one being Greater Armenia and the other, located at the southwest of the first one, near the area marked as Cilicia, is the Cilician Kingdom of Armenia, which flourished at the time of the making of the map and had close ties with Europe. These are located in relatively correct positions.

At the eastern end of Asia the legends include *India*, *Parthia*, *Assyria*, *Media* and *Persida*. In the area northeast of the map the legend of *Armenia* can be seen, below which the provinces/towns of *Mesopotamia*, *Edessa* (city of Urfa), *Damasc*, *Syria*, *Anthiopia*, *Hyrcania* and others are listed. Further south the second *Armenia* appears next to the legend of *Cilicia* (see the above paragraph). To the west of this region lie *Capadocia*, *Frigia* (Phrygia) and *Asia Minor*, while the provinces of *Albania* and *Hyberia* (Iberia) are located further north of it.

Isidore, *Etymologiae*. Copy from twelfth century manuscript. Bibliothèque Municipale, Aix-en-Provence. MS 25, f. 293r. Diameter 16.3 cm.

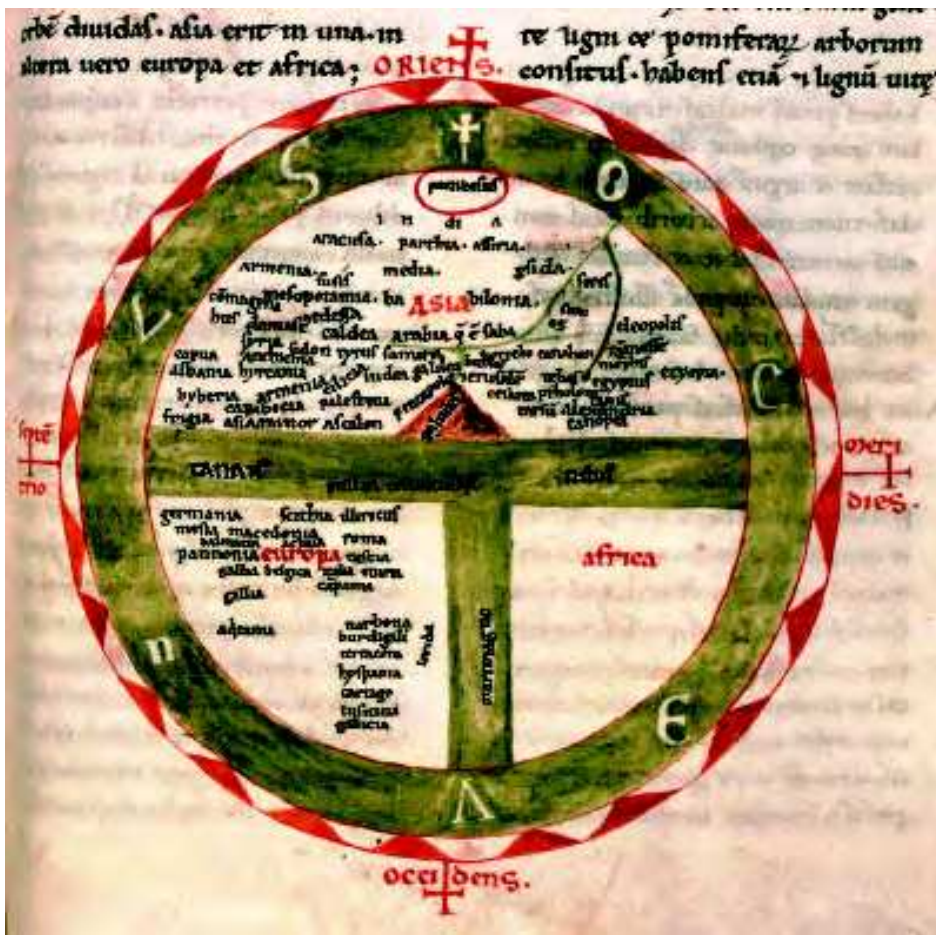


Fig. 21

Fig. 22/22a – The much more elaborate ‘Map of the World’ shown here also belongs to the T-O category of maps, but has already evolved and contains much more information than the previous T-O maps. There are many copies of T-O maps in the various works of Isidore, Bishop of Seville (c. 560–636), which are mostly diagrammatic and simple (see previous figures 19 and 21), though a few others such as this reproduction from an eleventh-century manuscript copy, are more elaborate and contain mythical, as well as religious symbols and legends.

This map is also in the basic shape of the T-O maps, oriented with east at the top. The stem of the T in the map, occupying a large portion of the map area, is the Mediterranean Sea with twenty-two islands. Three of the islands include vignettes of buildings. Of these the triangular island in the West Mediterranean is the island of *Sicily*, the square island in the southeast is *Crete* and the smaller rectangular one in the east is *Cyprus*. The Red Sea, combined with the Arabian Sea, is represented as the large red wedge-shaped inlet at the top right of the map. The biblical parting of the Red Sea permitting the Israelites to pass through is also shown. The twelve principal winds are surrounding the globe around its external perimeter. The map is filled with vignettes of buildings and churches representing towns and religious centers, the largest one being *Jerusalem*, topped with a large cross.

Africa brims with drawings of wild beasts and towns, the most important of which is *Alexandria* situated between the two mouths of the Nile. There is a large three-arched building named *Castellum Alexandri* sitting on the three-peaked mountain, bearing the legend Mount *Catabathmon*. This, according to Sallust is the area between Libya and the Egyptian city of Seyene (Aswan).⁴³ The city of *Carthago* is shown on a peninsula protruding from Africa towards Sicily. To the west of Carthage, between the two rivers the red-lined building vignette bears the legend of *Yppo* (Hippo, today’s Annaba). Further west, near the [Atlantic] ocean the green mass is *Mons Atlas* (the Atlas mountains), with the city of *Calpe* (Gibraltar) to its left.

In Europe the most important provinces and cities shown include *Constantinople* near the Black Sea, *Athens* near the eastern Mediterranean, *Rome*, shown as a castle with a river [the Tiber] flowing through. *Hyspania* is the triangular domed tower near the straits of Gibraltar with *Cordoba* to its north, shown with the vignette of a round domed mosque and a minaret, separated from Gallia with a curving mountain range. In the northwest, floating in the surrounding ocean *Anglia Insula*, *Scotia* and *Hiberia* are also shown.

The detailed map of Fig. 22a with the superimposed numbers relates to the region south of the Caucasus Mountains. *Albania Superior* (8) is shown south of the Caucasus Mountains (19). An important feature in the map is the vignette of a house sitting on two mountain peaks. The “house” bears the inscription *Archa Noe* (4, Noah’s Ark) and the twin peaks are named *Ararat* (3). This is possibly the first time that the Ark and Mount Ararat are shown on a map pre-dating the Crusades. Below Mount Ararat the additional legend reads *Montes Armenie* (2, Mountains of Armenia), which are situated near the river *Euxis* (possibly Halys or Kizilirmak river) flowing from *Mons Taurus* (11, Taurus Mountains) towards the Black Sea (18). *Armenia Superior* (1, Greater Armenia) is located west of the Caspian, the green inlet connected to the ocean. Northwest of Armenia Superior are *Mons Caucasus* (10, Caucasus Range) with *Porte Caspie* (5, Caspian gates) at its southern end, the southeast extension of which is called *Acroceraunis* (according to Orosius, these form part of the Caucasian Mountains and are called Mountains of Daghestan).⁴⁴ The gates possibly denote the Daryal Pass, since they are located between *the Caucasus* and *Acroceraunis* ranges. Further down, *Acrocerauni* joins *Mons Taurus* (11) extending westward. At the junction of the three mountain ranges lies the source of the rivers *Tigris* (12) and *Euphrates* (13), which flow all the way to the Red/Arabian Sea, as well as that of the river *Araxis* (14, Arax), which flows northwards into the surrounding ocean. Important toponyms shown in the detail map are the following:

A – Countries of the region

1. *Armenia superior* – Greater Armenia
2. *Montes Armenie* – Armenian mountains or the Armenian Chain.
3. *Ararat* - with twin peaks
4. *Archa Noe* or Noah’s Ark – sitting on Mount Ararat
5. *Porte Caspie* – Caspian Gates in the shape of a door. The old name for the Daryal Gorge. See footnote 33.
6. *Regio amazonii* – or region inhabited by the Amazone women
7. *Hircania Superior*
8. *Albania superior* – Caucasian Albania
9. *Sarmatharia* or Sarmatia (Russia)

⁴³ Sallust, *The Jugurthan Wars*, [63].

⁴⁴ Orosius, Paulus - *Seven books of history against the Pagans* – Translated by Irving W. Raymond. Records of Civilizations” series. Columbia University Press, New York, 1936, p.38.

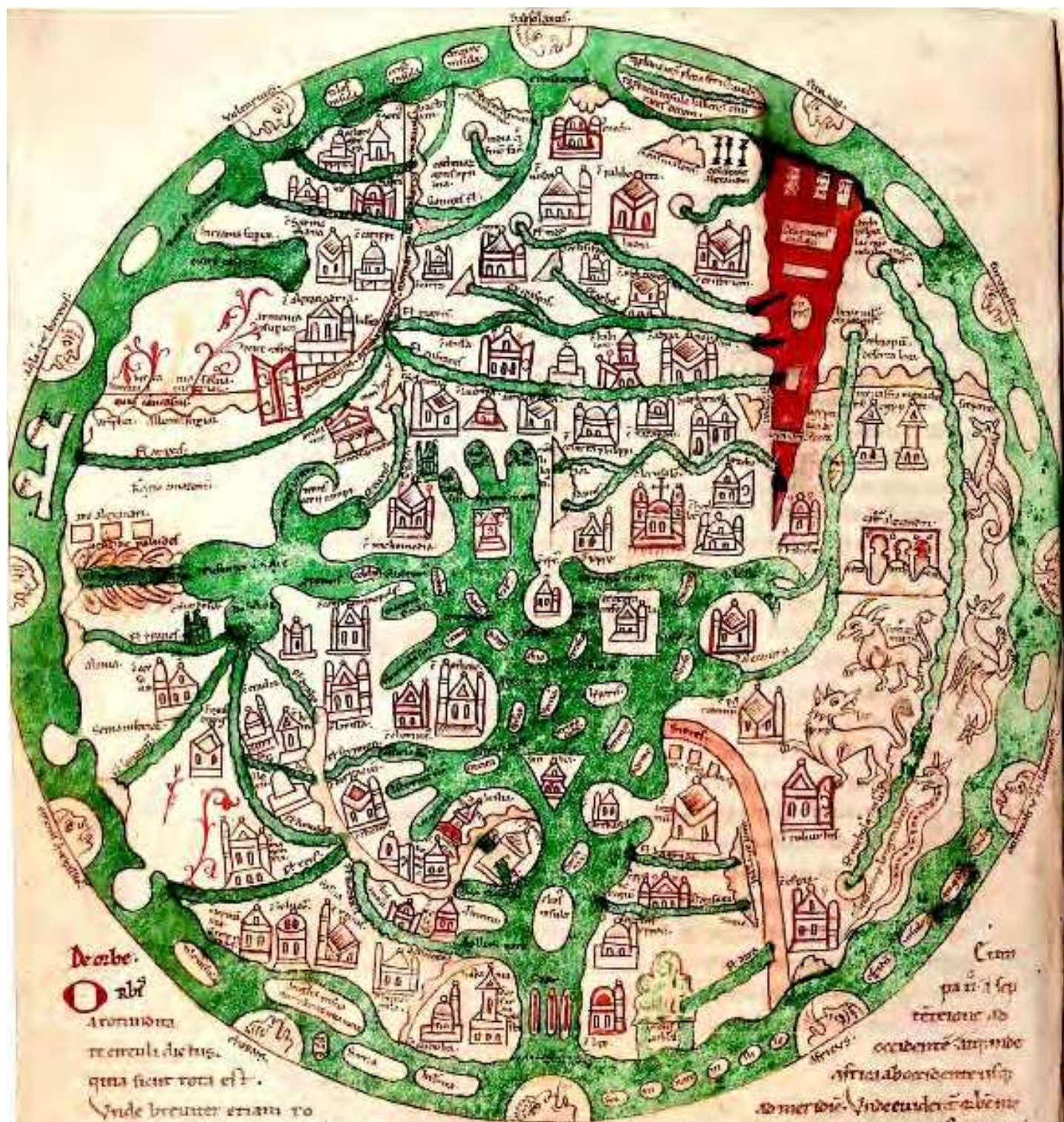


Fig.22a

B – Mountains, Rivers and Seas

- 10. *Mons Caucasus* – Caucasus Mountains
- 11. *Mons Taurus* – Taurus Mountains
- 12. River – *Tigris*
- 13. River – *Euphrates*
- 14. River – *Araxis*
- 15. River – *Ganges*
- 16. River – *Indus*
- 17. *Meotide paludes* – Azov Marshes
- 18. The Black Sea
- 19. *Mons Acrocerauni* – Part of the Caucasian Mountains that divides Iberia from Armenia, Daghestan Mountains
- 20. *Mare Caspiu* – The Caspian Sea
- 21. The Mediterranean Sea

Isidore, *Etymologiae*. Copy dating from c. 1050 CE.
 Bayerische Stadtsbibliothek, Munich. Ref. Clm 10058, f. 154v.
 Diameter 26.6 cm.



De orbe.

O rbe
 Arundina
 re circuli dicitur.
 quia sicut rota est.
 Unde breuiter etiam ro
 tella orbiculus appellatur. Antiqui enim dice
 runt orbem fluens et in circulo ambit fines. Di
 uisus est autem in tres partes. quarum una pars Asia. alia
 Europa. tertia Africa que et Libya nuncupatur. Quas tres
 partes orbis ueteres non equaliter diuiserunt.
 Nam Asia a meridie porcionem usque ad septentrionem
 tenent.

Cent
 pa rē i sep
 tētiore ad
 occidentē. In quō uide
 Africa ab orientē usque
 ad meridiē. Inde uidentur a bene
 dium due tenent. Europa et Africa. Asia uero diuisio
 sola Asia. Sed adeo iste due partes sic et sic. quia ut
 utriusque ab oceano mare magnum ingreditur. quod est in
 factis. Quod si in duas partes idē orientis et occiden
 ti orbis diuisio. Asia erit in una. in altera uero
 Europa et Africa.

Fig. 22

Fig. 23 – This map is from another copy of Isidore’s *Etymologiae*, which dates from the thirteenth century and is kept in the Library of Heidelberg University. The map is unusual in that it is a mixture of Macrobian zonal and T-O maps, while its layout is more akin to those of Beatus maps. See Figures 28 to 32.

The map is oriented with east at the top but also has the five Macrobian zonal divisions, which are normally shown on north oriented maps, therefore here the zones, instead of being horizontal, are shown as vertical divisions. They are named as:

1. *Septentionalis frigida inhabitabilis*
2. *Habitabilis (Northern Temperate zone)*
3. *Torrída zone inhabitabilis*
4. *Temperata habitabilis (Southern Temperate zone)*
5. *Australis frigida inhabitabilis*

The earth is surrounded by a wavy ocean, which has a few inlets in the north-eastern and eastern parts, bearing the legends of *Caspium Mare* and *Rubrum Mare* (The Caspian and Red Seas). The central body of water shown in the Equator, which lies in the middle of the Torrid Zone, is considered as part of the surrounding ocean. The inhabited part of the world is shown to be the northern Temperate zone, which itself is depicted as a full T-O type map. In this climatic region the vertical stem of the “T” represents the *Mediterraneum Mare*, but the top bar wings do not represent the rivers Tanais and Nile, but rather the extensions of the Mediterranean Sea, into which these two rivers flow. The *Tanais* is shown rising from the mountains of *Ripheimontes* in the north and flowing into the left part of the northern arm of the T, while the *Nilus* rises from a lake in *Egyptus Superior*, flowing northwest into the southern arm of the T.

Some mountains located near the outer coasts are marked dark brown and are named *Ripheimontes* in the northern frigid zone, *Calpe* (the Rock of Gibraltar) north of the junction of the Mediterranean and the Atlantic, and *Athlans* (Atlas mountains) in Africa, to the south of the Straits of Gibraltar. Above the Atlas Mountains, inside Mauritania, there is a short and unnamed river (See Fig.67 on page 153).

In northern Asia the legends specify the countries and provinces of *India*, *Albania* and *Amazones*, with *Scitia*, *Armenia*, *Syria*, *Galilea*, *Dan* and *T[r]joia*. To the south lie the provinces of *Babilonia*, *Susis civitas* (Shusha, capital of Persia), *Media Maior*, *Galilea* and *Palestina*. The city of Jerusalem is shown with larger lettering situated in the centre of the inhabited world as *Ihlm* (Iherusalem). In southern Asia the legends on one bank of the Nile indicate provinces and peoples of *Egyptus Superior* and *Inferior*, *Elamite*, *Syna mons* (Mount Sinai) *Arabia* and on the opposite bank, *Hic Ethiopes habitant* (here live the Ethiopians), *Desertus superior Egiptus* and *Desertus Sertie*.

Europe has sixteen toponyms, including *Ungaria*, *Teutonia*, *Roma*, *Tuscia* (Tuscany), *Gallia*, *Hyspania* and others. The British Isles are not mentioned. Africa merits only six toponyms and the Southern Temperate Zone is devoid of any legends, except the name of the zone, since it was separated from mankind by the unbearably hot Central Torrid zone, was inaccessible to mankind and remained a mystery to us.

Isidore, *Etymologiae*. Copy dating from the thirteenth century.
Heidelberg University Library. MS Salem IX 39, fol. 1v.
Diameter of map 21 cm.

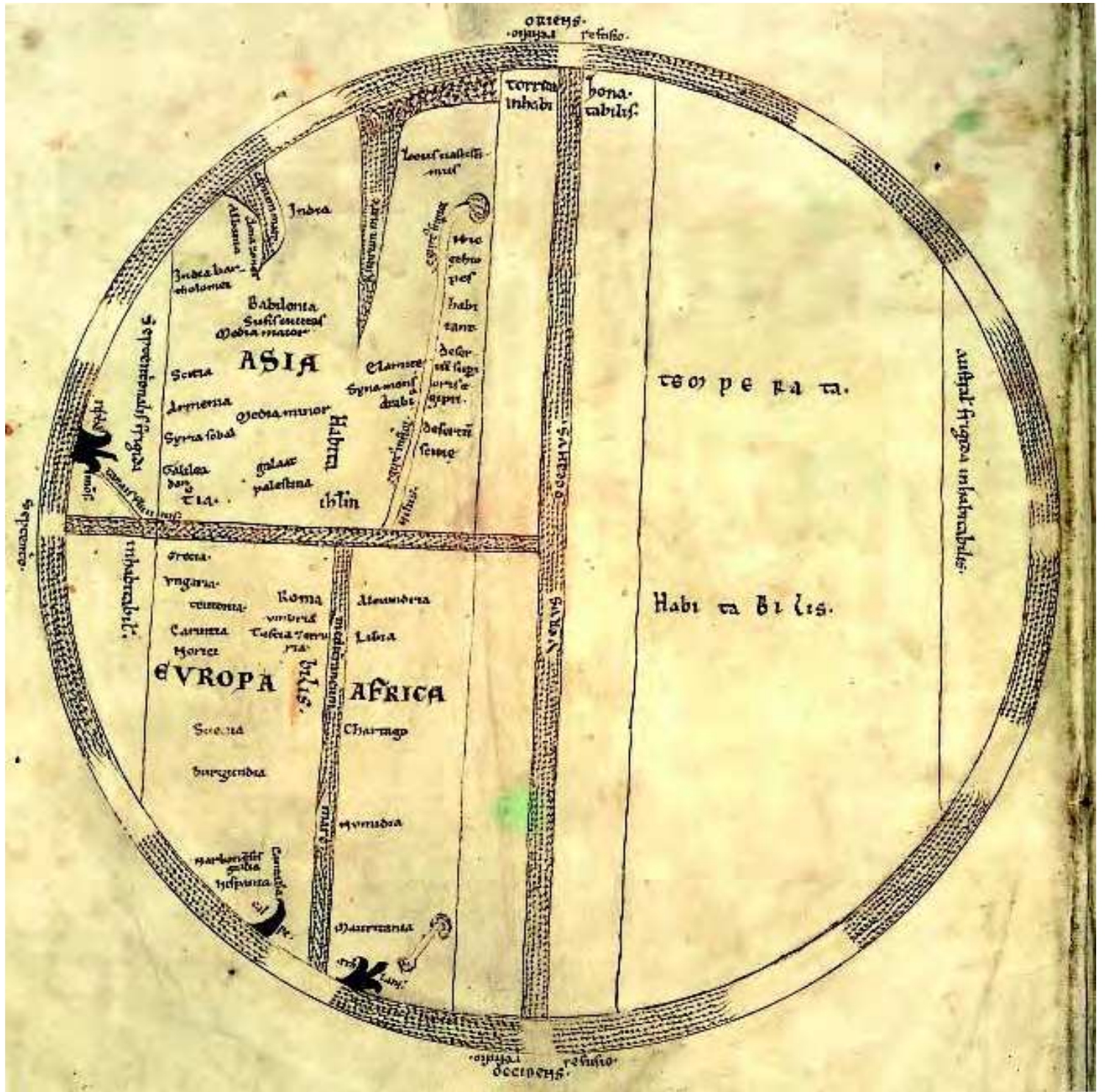


Fig. 23

7 – VENERABLE BEDE

A historian and Doctor of the Church, Bede was born around 672 and from early age was placed in the monastery of Wearmouth in Northumberland, England, where he was trained by the abbots. According to his own words, he spent his life there, studying the Scriptures and other works of the Venerable Fathers and compiling manuscripts of his own. He died there in 735 and was posthumously referred to as “The Venerable Bede”. Bede today is chiefly known for his scientific, historical and theological writings. His *Historia ecclesiastica gentis Anglorum* is the English history from the time of the Caesar to his day (the year 731), which laid the foundation of British historic writings.

His other chronological treatises *De Temporibus Liber*

and *De Temporum Ratione* also contain general historical and geographical data. His most famous work is *De Natura Rerum* or *On the nature of things*, which was generally accompanied by a T-O type map of the world. Unsurprisingly, Bede’s maps are loosely based on the models of his predecessors.

His most important contribution to Christianity was the re edition of the Vulgate Bible, which was used in the West until the Reformation years of the sixteenth century and - by the Catholic church - until 1966.⁴⁵

Bede’s manuscripts were utilised for teaching and were in use for many hundreds of years. During the fifteenth century some of his works were translated into Armenian (MS. 2037, dated 1421, Matenadaran, Yerevan).

Fig. 24 – This simple T-O map is from a manuscript of Bede’s *De Temporum Ratione*, copied during the eleventh century. The map is oriented with east at the top and the three continents are filled with the names of their countries. The map does not contain any topographic features. Africa contains 13 names. In Europe many Greek provinces and islands as well as a few Western European countries are named.

The legend of Paradise is shown to be at the easternmost (top) part of Asia, and the names of 36 Asian countries and provinces are listed in the legend below. They begin with *India, Parthia, Asiria, Media, Persida, Fenicia, Mesopotamia, Arabia* etc. and in the penultimate line the names of *Hircania, Albania, Armenia, Hiberia (Iberia), Capadocia, Asia Minor* are listed.



The map contains no other features at all. In the rubric under the map Bede is mentioned as its author.

Bede, *De Temporum Ratione*.
Eleventh century copy.
Bodleian Library, Oxford. MS
Canon Misc. 560, f. 3r.
Diameter 10 cm.

Reprinted by the kind permission
of the Keepers of Special
Collections and Western
Manuscripts and Oriental
Collections of the Bodleian
Library, University of Oxford.

Fig. 24

⁴⁵ St. Jerome’s fifth century translation of the Bible into Latin.

Fig. 25 – This exquisitely executed world map is from Thorney Abbey in England. The manuscript was copied in the year 1110 and is one of most beautifully made books. It contains a collection of various important works, among them the three works of Bede, *De Temporum Rationem*, *De Temporibus Liber* and *De nature rerum*, plus *Computus* and other works, and comprises many diagrams and tables.

The manuscript contains no text relating to this map, a somewhat distorted and unusual version of the T-O model. As usual east is at the top of the map and the cardinal directions are shown in their Greek and Latin names. The unnamed Mediterranean separates Europe from Africa, with Europe occupying most of the lower half of the map, leaving a small Africa at the south-western corner of the globe. This is in line with some early suggestions that Europe and Africa should be considered as one continent.⁴⁶

The upper portion of the map is occupied by Asia, separated from Europe and Africa by the rivers Tanais (Don) and Nile, neither of which are named. Instead, the width of the two rivers is inscribed with the name *Hierusalem* (Jerusalem), with *Mons Syon* located at the confluence of the three waterways as a square of undulating red lines.

The names mentioned on the map are those with Biblical significance. At the top of the map, below *Asia Maior* the scribe has written *Quod unt septuaginta due gentes orte* (There are seventy two peoples [tribes] in the world). In different parts of the map the tribes of Noah's sons are described. Shem in Asia has 27 tribes, Cham in Africa has 30 tribes but Japheth's tribes are not shown, instead *Armenia* is shown with 33 tribes, making the total of tribes shown to be 90. It is not clear why Armenia is singled out and why the number of tribes, as mentioned in the map legends exceeds the total of 72. Other biblical names appearing in the map are *Nazareth*, *Jordanis fluss* (the river Jordan), *Galilea*, *Terra Iudea* (Judea), *Palestine* and a few others - the last two being located west of the strip entitled *Hierusalem*.

The map also shows *Archa Noe* (Noah's Ark) in Armenia, near the *Euphrates* river, but all these are placed at a curious location, that is to say, south of *Caesaria* and *Mesopotamia*, instead of at their north, a long way away from *Asia Minor*, where in fact they are located. Other regions in Asia include *Constantinopol* (below Asia Minor), *Effesus* and *Cilicia* to its right and curiously, a *Cartago* situated south of *Palestine*, where it does not belong.

In Europe the legends shown are *Terra Macedonia*, *Italia*, *Roma* (with the *Tiber river*), *Mount Ethna* in *Sicilia*, *Tuscia* (Tuscany) and once again another Carthage, this time entitled *Kartago Magna*. With its placement near Siciy and north of Africa this could be the "New Carthage", which was the centre of Cartahgenian power in European Spain. It seems that within Europe there are only Macedonia, Italy, Carthage, Tuscani and Sicily, with *Britannia*, *Hibernia* (Ireland) and *Thile* (Iceland) added as an afterthought. The names of the latter appear outside (left of) the normal area of the map, perhaps by the English monk copying the map, who felt that his country should not be excluded from the map, but instead of adding these names in the northwest, has shown them in the north.

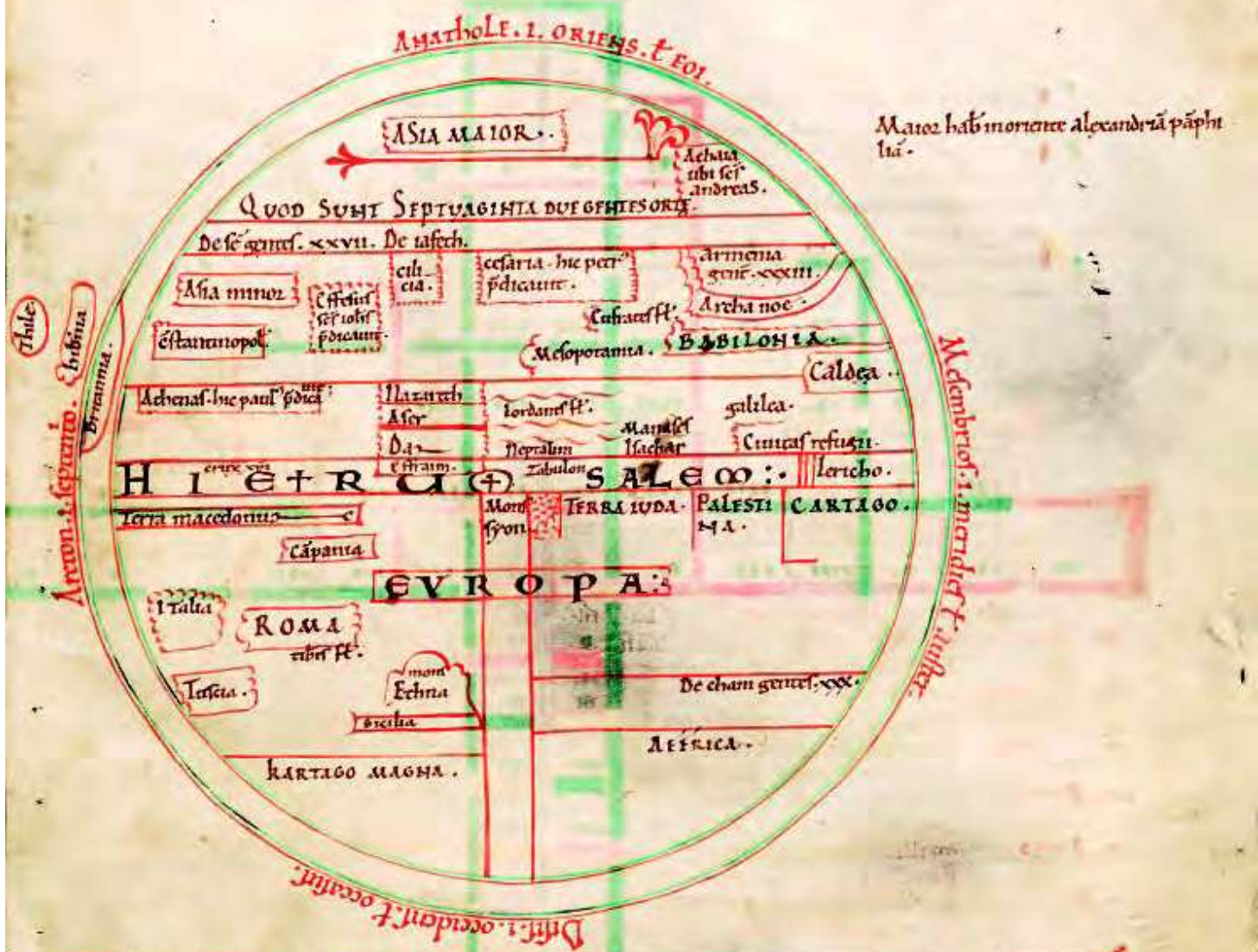
The legend of Europe straddles the Mediterranean and stretches to the territory in the south, while Africa is relegated to the southwest corner of the map, west of a double lined boundary, which should be the river Nile.

It is obvious that the mapmaker has not paid any attention to the correct positioning of the toponyms and he has been satisfied with the inclusion of these on his map, a phenomenon quite common in many medieval T-O maps (see Fig. 2, 24 and 26).

Collection of Works, 1110.
St. John's College, Oxford. MS, Thorney Abbey, St. John's MS.17, f. 6r.
Map diameter about 17 cm.

Reprinted by the kind permission of the Keepers of Special Collections and Western Manuscripts and Oriental Collections of the Bodleian Library, University of Oxford.

⁴⁶ Orosius, Paulus, *Seven books of history*, New York, 1936. Book 1, Ch.1, Sec. 1.



DE QUOTA FERIA INQUIRENDI IN UNACVQA DIE.

	PRIMA FERIA.	II. FERIA.	III. FERIA.	IIII. FERIA.	V. FERIA.	VI. FERIA.	Sabbato.
L. B. II.	iiii	iiii	vii	vi	viii	viii	xii
xi	iiii	viii	vi	ii	xvi	xii	iiii
xii	iiii	iiii	vii	iiii	xviii	xii	iiii
vii	iiii	iiii	vii	iiii	xxiiii	xii	iiii
viii	iiii	v	vii	v	xxx	xii	v
x	iiii	vi	vii	vi	xxxvi	xii	vi
xii	iiii	vii	viii	vii	xl	xii	vii
xiii	iiii	viii	viii	viii	xlvi	xii	viii
xv	iiii	viiii	viiii	viiii	l	xii	viiii
xvi	iiii	viiii	viiii	viiii	lvi	xii	viiii
xvii	iiii	viiii	viiii	viiii	lxx	xii	viiii
xviii	iiii	viiii	viiii	viiii	lxxvi	xii	viiii
xix	iiii	viiii	viiii	viiii	lxxx	xii	viiii
xx	iiii	viiii	viiii	viiii	lxxxvi	xii	viiii
xxi	iiii	viiii	viiii	viiii	lxxxii	xii	viiii
xxii	iiii	viiii	viiii	viiii	lxxxviii	xii	viiii
xxiii	iiii	viiii	viiii	viiii	lxxxiiii	xii	viiii
xxiiii	iiii	viiii	viiii	viiii	lxxx	xii	viiii
xxv	iiii	viiii	viiii	viiii	lxxxvi	xii	viiii
xxvi	iiii	viiii	viiii	viiii	lxxxii	xii	viiii
xxvii	iiii	viiii	viiii	viiii	lxxxviii	xii	viiii
xxviii	iiii	viiii	viiii	viiii	lxxxiiii	xii	viiii
xxix	iiii	viiii	viiii	viiii	lxxx	xii	viiii
xxx	iiii	viiii	viiii	viiii	lxxxvi	xii	viiii
xxxi	iiii	viiii	viiii	viiii	lxxxii	xii	viiii

Parare pvi. Parare pvi. Parare pvi. Parare pvi. Parare pvi. Parare pvi.

Fig. 25

Fig. 26 – Another T-O type map from the same period and very similar to the Fig. 24 is this World Map dating from the year 1120. This untitled map is bound to the end of the Bible known as the Arnstein Bible, kept in the British Library. It is accompanied by some other sketches, none of which contain any associated texts in the Bible which houses them. The map seems to have been prepared in Germany and above it there is a diagram showing the four branches and sub-branches of philosophical knowledge, though these also have no connection with the map.

As mentioned above the map is of T-O type, but unusually it also incorporates the Macrobian climatic zones. Zonal maps are generally oriented with north at the top, but here the T-O model takes precedence and hence the map is oriented with east at the top. The zones in the map are therefore shown as vertical divisions at the two extremities of which are the *intemperata* (extreme) zones. The Northern Temperate Zone, which includes the inhabited world is widened and occupies a large portion of the map and is itself shown in the T-O format. At its southern border is the *perusta* (scorched) zone, which is followed by the Southern Temperate Zone, all unknown to mankind. The Southern Temperate Zone is shown very narrow and bears no legend or description. This is similar to Isidore's map of Fig. 23, which has the same T-O and Zonal division mixture.

The inhabited world is squeezed inside the Northern Temperate zone, hence it is shown in somewhat distorted and stylised form. Regarding geographical data, this map is more accurate than the previous map of Fig. 25 from Thorney Abbey. In order to accommodate all the information intended to go on the map the width of the Temperate Zone has been exaggerated, making it wider than all the other zones combined. The Mediterranean Sea, here called *Affricum mare*, separates *Europe* from *Africa* and the rivers *Thanais* and *Nylus* are the borders between Asia-Europe and Africa-Europe respectively. The two sloping lines at the western end of the Mediterranean, near the ocean are named *Calpes*, the Rock of Gibraltar, with Gades (Spanish city of Cadiz) situated in their middle.

The landmass of Asia is shown divided into three parts. The northern part contains the provinces of *Armenia*, *Brithinia*, *Frigia*, *Galacia*, *Lidia*, *Bactria*, *Pamphilia*, *Cilicia*, *Nyce* and *Troy*. The central sector is topped by Paradise, followed up by the names of *India*, *Parthia*, *Assyria*, *Persida*, *Media*, *Mesopotamia*, *Chaldea*, *Arabia*, *Syria*, *Palesinta*, *Ascelonia* and *Antiochia*. The Biblical provinces of *Samaria*, *Galylea*, *Judea* and *Hierusalem* follow the inscription *ASIA*. The third sector of Asia, at the far right, contains the inscriptions *Alexandria*, *Egyptus* and *Babylonia* (in reality Cairo). In the area of Caucasus only Armenia is mentioned. The map and its legends have much in common with the world map of Gauthier de Châtillon shown in Fig. 2.

In Europe, at the lower left of the map many provinces are shown including *Roma*, *Ythalia* (Italy), the city of *Constantinople*, *Grecia*, *Ungaria* (Hungary), the river *Danube*, *Germania* and *Francia*.⁴⁷ At the very edge of the map the provinces of *Anglia*, *Scocia*, *Hyberia* (Ireland) as well as *Britannia* are shown. *Britannia* here most probably refers to the French region of Britany rather than Britain, which is already shown with the names of its constituent provinces.

In Africa the cities of *Carthage*, *Cyrene* (Siene - Aswan) and *Hyppone* (Hippo, present day Annaba in Algeria), as well as other provinces are shown. In line with Sallust, who writes that the Persian and Armenian mercenaries of Hercules's army settled in the northwest of Africa, this area of the map shows the name *Perse* (Persians), but no Armenians.

Arnstein Bible, ca. 1120.
British Library, London. MS Harley 2799, f. 241v.
Map diameter c. 25 cm.

⁴⁷ Note that the archaic name Gallia is not used.

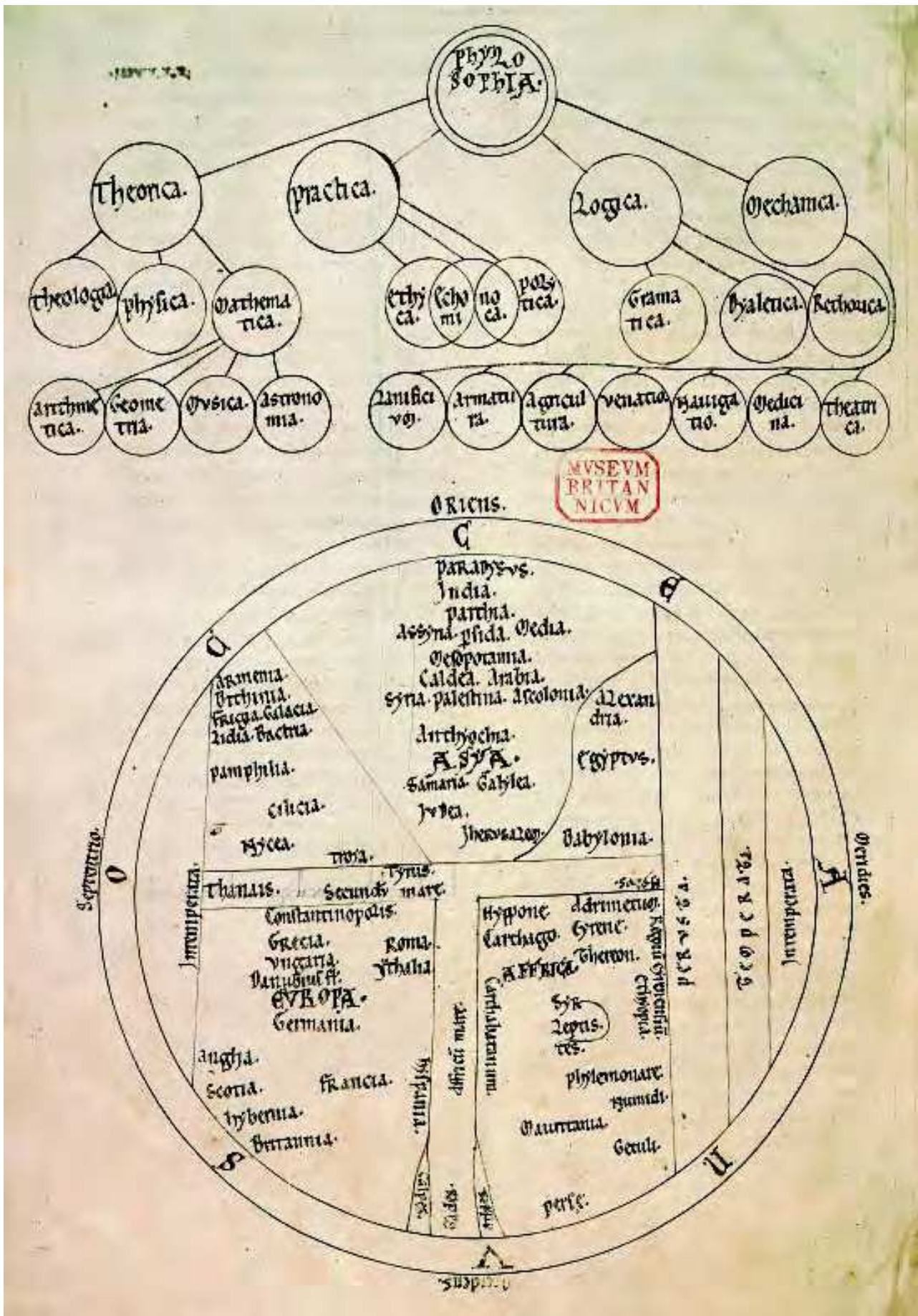


Fig. 26

8 – THE RAVENNA COSMOGRAPHER

In the middle of the seventh century an anonymous monk from Ravenna penned a description of the world, compiled from various sources available at the time. These sources were diverse and varied and included Ptolemy, Orosius, possibly Agrippa, Isidore of Seville, Castorius and others. The resultant volume was the description of the world in five books, setting out and providing description of the geography and topography of the habitable world, supplying names of countries and provinces in the main text. Some two hundred years later this anonymous manuscript was in turn plundered by another Ravennese named Guido of Ravenna.

According to the text there should have been a map accompanying the text, though none has survived. Over the years many cartographers have reconstructed the world map as per the topographical and geographical data provided by the anonymous Ravennan student. Naturally, the results of all these reconstructions have been maps that look quite different from each other. One of the most comprehensive reconstructions is by Konrad Miller, the late nineteenth century German cartographer and geographer, famous for his many map reconstructions. His map is reproduced and discussed here.

Fig. 27 – Konrad Miller’s reconstruction of the Anonymous Ravennan’s world map is of an elaborate T-O type. The map is oriented with east at the top and as the author was from Ravenna, all the meridian lines are shown converging on Ravenna. The habitable world is surrounded by the Northern, Southern, Eastern and Western Oceans with the Mediterranean Sea as the main dividing body of water separating the continents.

The Caspian Sea is yet again pictured as a gulf, leading into the Northern ocean, while the Persian and Arabian gulfs open into the Red Sea, which itself leads into the Southern ocean. Places shown in the vicinity of the Caspian are *Iberia*, *Albania* and *Caspia*, as well as *Montes Caspii* – running from the shores of this lake to the *Caucasi Montes*. The rivers *Araxis* and *Cyrus* (Kura) which in reality join before they reach the Caspian, here are shown flowing into it separately. In the middle of the Caucasian range there is a gate named *Portae Caspiae*, which denotes the Daryal Gorge or Pass, since these are located in the middle of mountain ranges, while the actual Caspian Gates (the pass near Derbend) are located at the extremity of the mountain range, near the Caspian Sea (see footnote 33).

Albania is shown southwest of the Caspian Sea, near *Armenia*, from which it is separated by the *Caucasi Montes*. *Iberia* is located north of *Albania*, near the Caspian Sea and the *Montes Caspii*. (Caspian Mountains, which is the name given also to the Caucasus). *Colchia[s]* is shown at the north-eastern shores of the Black Sea.

Armenia is shown to the south-west of the Caucasian Mountains and north of *Mesopotamia*. The source of the rivers *Tigris* and *Euphrates* are the *Armenian Mountains*. Countries in the immediate vicinity of *Armenia* are *Iberia*, *Albania*, *Hyrkania*, *Media Maior*, *Parthia*, *Assyria*, *Syria*, *Cilicia* and *Chaldaeii*.

Mare Magnum (The Mediterranean) is filled with a multitude of islands, the largest of which is *Sicilia*, followed by *Creta* and *Cyprus*. *Propontis* (Sea of Marmara) leads into the *Golfus Ponticus* (Gulf of Pontos) and the *Paludes Maeotides* (Azov marshes). The river *Tanais* (Don) empties into the marshes and bears the legend “Tanais, dividing Asia from Europe”.

Europe is laden with names of its constituent peoples and provinces. Here the meridians converge on Ravenna, showing it to be the source of the map. *Britannia*, *Ybernia* (Ireland) and *Thyle* (Iceland), together with many other smaller islands are shown surrounding the Western ocean. Other countries and provinces shown in Europe are *Dardania*⁴⁸, *Tracia*, *Macedonia*, *Tessalia*, *Ellas* (Greece), *Archaia*, *Sarmatiae*, *Illyricus*⁴⁹, *Dacia Maior*, *Mysia*⁵⁰ (2), *Dania*, *Germania*, *Francia*, *Burgundia*, *Iberia*, *Spania* and others, many of them located in the region of Italy.

Various African countries and tribes are named within the continent, which is divided from Asia by the river *Geon* or Nile. The Nile has its source in the mountains located in southeast Africa from where it flows north into the Mediterranean, passing through Egypt. In *Upper Egypt* there is an island in the Nile, which bears the legend *Meroia Insula*, situated near *Thebais* (Thebes). See also Fig. 10.

Konrad Miller’s reconstruction, *Die ältesten Weltkarten*, Vol. VI, Map table 1.
Published in Stuttgart, 1898.
Private collection.

⁴⁸ Dardania – a province in the northern Balkans.

⁴⁹ Illyria – in the pre Classical times a country near present day Kosovo

⁵⁰ Mysia – a province in Asia Minor, south of the Propontis (Sea of Marmara).

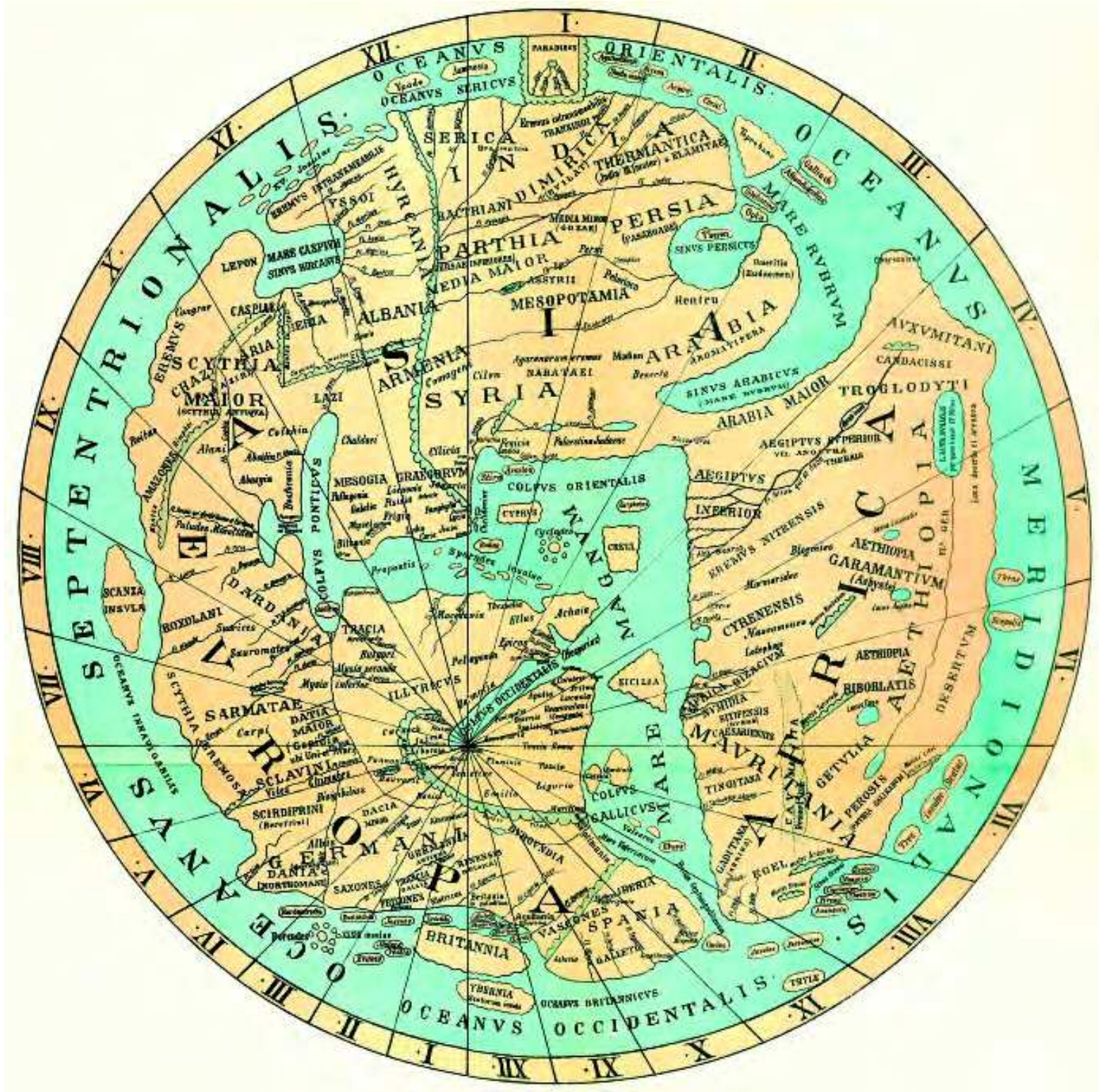


Fig. 27

9 – BEATUS OF LIEBANA

The Spanish monk, Beatus of Liebana (c.730 – 798 CE) was a Benedictine monk and theologian in a monastery situated in the mountains of Liebana (Spain), and is best remembered today for his work entitled *Commentarium in Apocalipsin* or *Commentary on the Apocalypse*. In the introduction to his work Beatus mentions the sources which he has utilised in his work. These include Jerome, Ambrose, Augustine, Gregory, Isidore and the African, Tyconius.

Some twenty six copies of the *Commentary* or the *Beatus* (as it sometimes is referred to) have reached us, most of which are richly illuminated and lavishly decorated with scenes of the Bible in the Mozarabic style of illumination. Although the original was written in 776, those Beatuses that have reached us date from the tenth to the thirteenth centuries. World maps exist in fourteen of the surviving Beatus manuscripts, which are based heavily on Biblical teachings. These maps are varied in their shape and content. Some are circular, some oval and others rectangular. They were developed independently of the Anglo-Saxon and Germanic map traditions, and in spite of having much in common, they remain distinctive in many ways. Beatus maps share some of the same principles:

- They are variations of the T-O type maps and show the rivers of Tanais and Nile as well as the Mediterranean dividing the continents.

- In most Beatus maps the source of the Nile is not in the south, but in southwest Africa, in its long course the river traverses most of the continent before arriving at the Mediterranean Sea.
- They include the fourth continent, which is the “*terra incognita*”, said to be the land inhabited by the Antipodes.
- The surrounding ocean is alive with swimming fish and in some maps with ships and boats.
- Earthly Paradise is shown located in the far eastern end of the maps.

While Islamic maps concentrate on the Islamic world, Beatus maps, in line with the western medieval T-O maps, concentrate on the Christian nations and the provinces and lands inhabited by them, among them Armenia and in many cases Colchis and Albania, who also were mainly of Christian faith.

Here reference is made to the fourth (Southern) continent, which Beatus considers as “Unknown” and “uninhabited, due to the great heat of the sun”. This is similar to Macrobius’s explanation of the Equatorial continent, which he calls “*perusta*”, meaning “parched”. All Beatus maps boast this fourth and unknown continent.

Five variants of the Beatus maps are reproduced and discussed in the following pages.

Fig. 28/28a – The provenance of this Beatus map is the *Apocalipsin* kept in the National Library of France. This map is drawn in much more detail than the others and is known as the Saint Sever copy, dating from around 1050. It was copied from the original manuscript dating from 776 CE, but the mapmaker must have chosen how to present his map and what information to include on it.

The map is oriented with east at the top and is decorated with a multitude of vignettes. The surrounding ocean is filled with various islands and the empty seas are richly decorated with fish and rowing boats. Paradise is prominently displayed at the top centre, with Eve picking an apple. The areas of Asia and Africa are filled with historical, geographical, religious and mythological texts. Europe is replete with the names and vignettes of many provinces and towns, as well as shapes of rivers and mountains.

The Mediterranean, the large blue mass in the centre of the map, is not named as such and is made up of a number of variously named seas. It contains the islands of *Malorca*, *Minorca*, *Sardinia*, *Scicia*, *Corsica*, *Creta* and *Cypros*. Africa is also named *Libia*. The *Mari Caspium* (Caspian Sea, no. 12 in the detail map) is shown as a gulf of the surrounding ocean. *Mare Rubrum* (the Red Sea), is coloured bright red and divides the inhabited world from the fourth landmass, which is said to be unknown and inhabited by fabled creatures and the Antipodes. *Sinus Persicus* and *Sinus Arabicus* branch off it towards *Persia* and *Egiptus Superior*, with *Arabia* in the middle of the two gulfs.

The waters extending northwards from the East Mediterranean are represented in a highly peculiar fashion. The sequence of the Aegean Sea, The Straits of Dardanelles (*[H]ellespont*), Sea of Marmara (*Equor Ponti*, Propontis), The Bosphorus, the Black Sea (*Eusin Pontus*) and the Sea of Azov are shown more or less along a line, in various oblong, oval, trapezoidal and flattened shapes. To the west of this string of waterways the very long inlet is *Sinus Adriaticus* (Adriatic Gulf), with *Roma* situated nearby. *Oceanus Britannicus* is the name given to the seas in Northwest Europe. The main islands in this ocean are from left; *Tile* (Iceland) *Britter* (?), *Brittannia*, *Hibernia* (Ireland), *Gades* (city of Cadiz) and others.

The continents are filled with the vignettes depicting buildings and churches, their sizes being indicative of their relative importance. The largest vignettes of towns belong to *Jerusalem* in Asia and *Rome* and *Constantinopolis* (no. 14 in detail map), capital of Byzantium, in Europe. The largest church is *Ecclesia St. Severe* in *Gascony*, France, deemed an important church since it is here that this manuscript was purportedly made.

Africa has been pushed to the southwestern corner of the oval shaped inhabited world, with the river Nile shown as having two sources: one in the mountains [of the Moon] and the other in a lake. The river covers the entire length of this continent. Most of the area of the map is occupied by Asia, which is divided into its two parts (northeast and south) by a series of mountains along the centre of the page, entitled *Mons Ceraunis* (no. 15, hidden in the map fold) *Taurus* (no. 9) and *Caucasus* (no. 8).⁵¹ These mountains are partially hidden in the centrefold of the manuscript but are clear on the detail reproduction. It must be made clear that for the medieval mapmaker Asia extended perhaps as far as India but no further.

Details of the part of the Middle East and Caucasus can be seen in the enlarged detail 28a, which is from Konrad Miller's redrawing of Beatus's map (*Die ältesten Weltkarten*, Miller, 1897). The places shown include the following:

1. *Armenia regio*. The description related to the region of Armenia reads:
The region [Armenia] is situated between the Taurus and Caucasus mountains, extending to the Caspian, from whose hills the river Tigris is born. Armenia is in two parts, Armenia Minor and Armenia Maior.
2. *Capadocia*
3. *Scicia maior* – south Russian lowlands
4. *Gens Colci* – people of Colchis, shown east of a mountain range.
5. *Albania* – The text loosely translates as: *The people here are born with white hair. It has the Caspian Sea at its east, which rises to the Northern Ocean and extends to the Meotides Marshes. In this land dogs are such ferocious that they overcome bulls and kill lions.*
6. *Lidia*
7. *Araxis* – Arax river
8. *Mons Caucasus*
9. *Mons Tauros*
10. *Asia Minor*
11. *Eusin Pontus* – the Black Sea
12. *Mari Caspium* – the Caspian Sea
13. The Mediterranean Sea
14. *Constantinopolis*
15. *Mons Ceraunis* – See footnote 51

Fig. 28a

Fig. 28.
Beatus of Liebana, *Apocalipsin*. Copy dating from 1050. Bibliothèque Nationale de France, Paris. MS Lat. 8878 between ff. 45 and 46. Size 57 x 38 cm.

Fig. 28a
Konrad Miller, *Die ältesten Weltkarten*, Stuttgart 1897, Vol. 1, insert map. Private collection.



⁵¹ According to Mela in pre Classical times *Mons Ceraunis* was the name given to the Caucasus and Taurus mountain ranges. See Mela, *Description of the World*, Michigan 1998, [1.109 and 3.39].

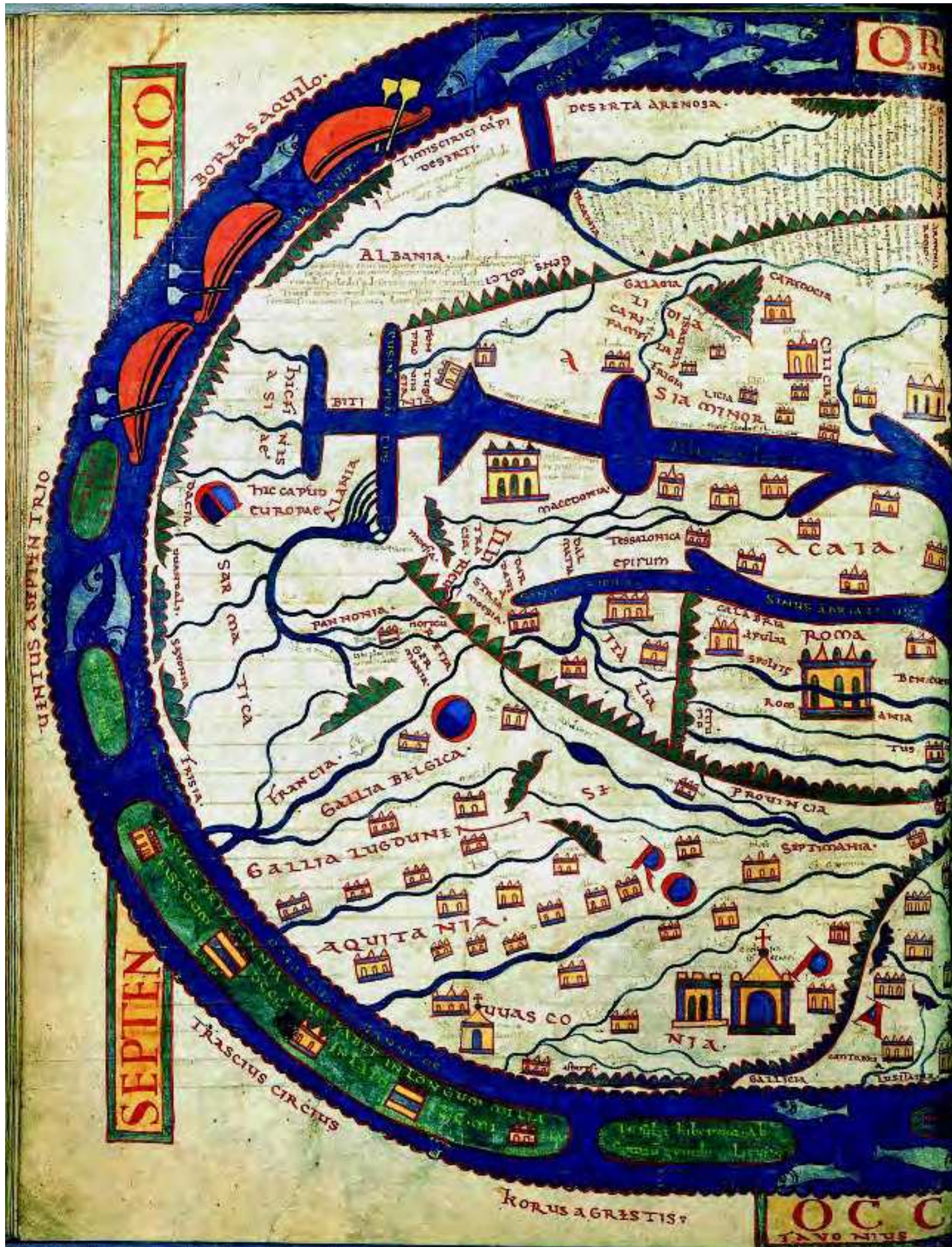


Fig. 28



GENS
MEDIUS



GENS SERES

INDIA
GANDHARI INDIA

ASIA

Generaliter
ARACUSIA
MESOPOTAMIA

MAIOR

PARTIA VOCATUR
CALDEA
BABYLONIA
PSIDIA
CALDEA
COTYMON

TOLEMAICA
GALILEA SUPERIOR

MAIOR

ARABIA
MADIANA REGIO

JUDEA
PALESTINA

EGYPTI SUPERIOR

EGYPTI INFERIOR

LIBICA

AFRICA

ETHIOPIA

MARI RUBICUM

DIES

MER

ANOSTR AFRICUS
LIBO NOTHUS

LIPS AFRICUS

ANOSTR QUINTUS

In ista regione videtur solis orbis. QUARTA PARS TRANS
OCEANUM IN TROPIC EST INOCCIDENTE AQUAE SOLIS ARDOR
INCOGNITA NUBIS EST. ILLI CUIUS FINITUS AN IPO
TAG TABULOSAE INHABITARE PONTI

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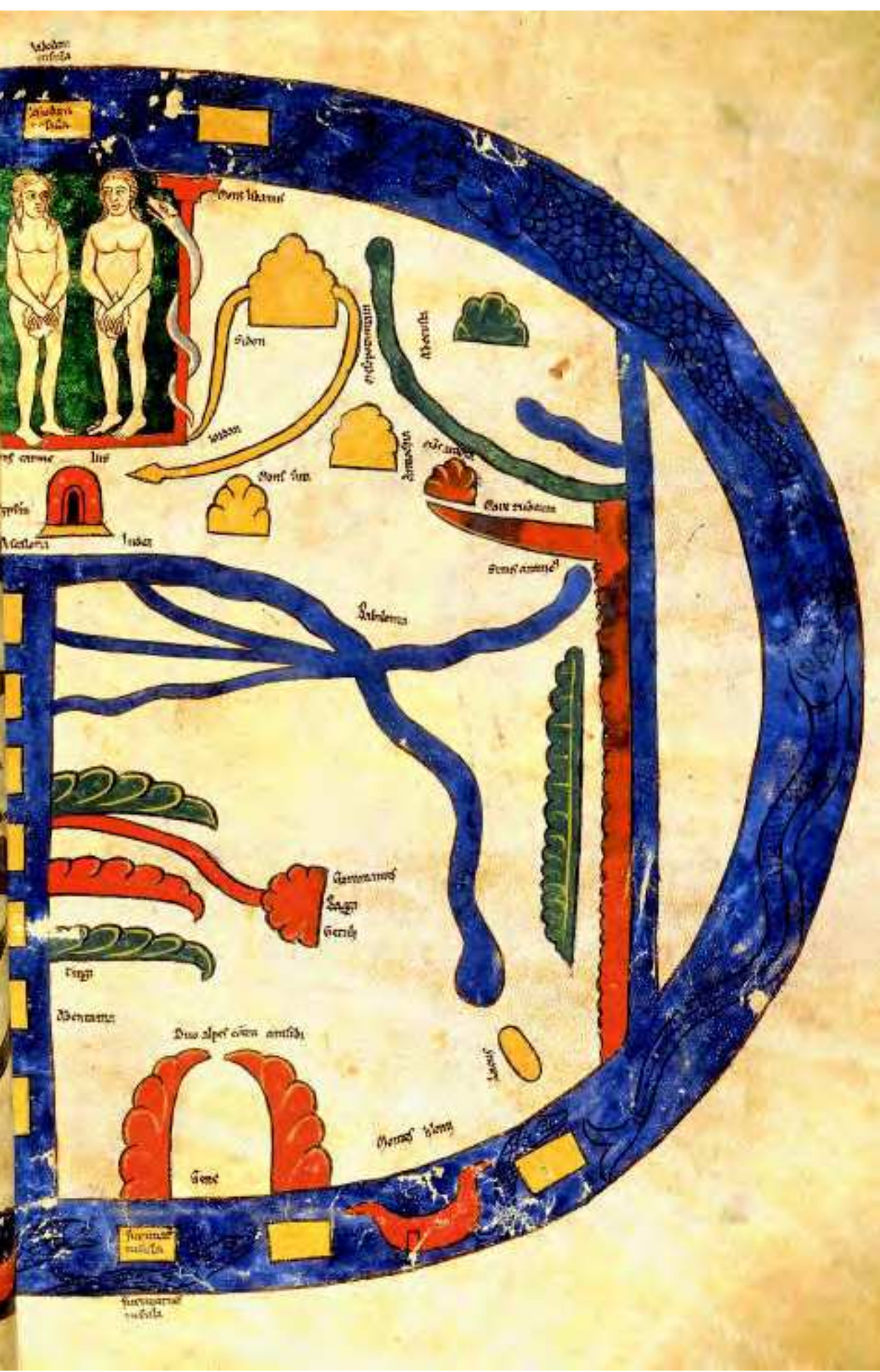


Fig. 29 – This so-called “Beatus World Map” is a T-O map of the world from a twelfth-century manuscript, produced by the Spanish Benedictine monk, Beatus of Liebana in his book *Commentarium in Apocalipsin*, originally written in the eighth century in Spain. This is a beautifully decorated and coloured map, inserted in the manuscript dating from the twelfth century.

The vertical blue line in the centre of the map is the Mediterranean Sea. The horizontal lines at the top are the River Don on the left and the River Nile on the right. Note that the source of Nile is shown somewhere in West Africa. East is at the top of the map shown with the vignette of *Paradise*, inhabited by Adam and Eve accompanied by the serpent. To the left of Eve, between the green and the orange mountains, the legend reads *Mons Caucasus* (Caucasian Mountains). It refers to the orange mountain and below it we can see *Armenia* and below that, *Cappadocia*. The green mountain mass must indicate the Taurus Mountains. Further down and left the legends state *Calcedonia*, *Pampilia* and *Frigia*, with *Asia Minor* located further down. An unnamed river is shown flowing from the Caucasus Mountains to the surrounding ocean.

Europe contains a large river (Danubius) flowing into the Aegean/Black Sea and is covered with many toponyms. Another green coloured shape (possibly the Carpathian mountains) is connected to the Mediterranean by a river and the city of *Constantinopolis* is situated near its shore. This is probably the Sea of Marmara (Propontis). Other toponyms include *Tessalonica*, *Macedonia*, *Alania*, *Sarmati*, *Germania*, *Francia*, *Gallia*, *Belgica*, *Dalmatia*, *Roma*, *Galicija* and many more.

In Africa and southwest Asia some of the toponyms are grossly misplaced. For example *Babilonia* appears downstream of the *Nile* and *Mesopotamia* is south of *Mons Sina*. *Mons Liban* is shown with two rivers and *Mare Rubrum* appears in red, extending from the Arabian Mountains (*Mons Arabia*) to the southern ocean and turning west, running the whole length of Africa, parallel to the ocean dividing Africa from the fourth continent.

The seas surrounding the world are brimming with serpents, fish and boats. The islands at the lower left part of the oceans include *Scotia*, *Britania* and *Tile* (Scotland, Britain and Iceland). It is also interesting to note the existence of a large and uninhabited island at the right side of the map, which has no inscriptions of any kind. In most other Beatus maps this area is described as *Terra incognita*, “Unknown Lands”, the fourth, the unknown continent.

In conclusion one can say that the map’s significance lies in its decorative and artistic value rather than its cartographic accuracy.

Reproduced by courtesy of the Directors and Librarian of John Rylands University Library, Manchester, UK.

Beatus of Liebana, *Commentarium in Apocalipsin*. Twelfth century copy.
John Rylands Library, Manchester. Latin MS 8, ff. 43b-44a.
Size 45.4 x 32.6 cm.

Fig. 30/30a – This is again a Beatus world map, taken from another manuscript in the Babiliothèque Nationale de France. This copy is in a manuscript dating from the late twelfth century.

The orientation of the map is strange. The legends at both sides imply that the map is oriented with south at the top, but the layout, the waterways and various other topographic features indicate that it is in fact oriented with east at the top, where also Earthly Paradise lies. It is possible that the copier has made an error and reversed the inscriptions of *oriens* and *occidente* at the two extremities of the map. Due to this error and ambiguous orientation, most countries and provinces seem grossly misplaced.

The two circles at the left of the map depicting the sun and the moon are unique features. The black and white circle is the moon and the red and orange, the sun. It is also noteworthy that although the world is divided into four parts, Europe is allocated two quarters of the map. The result is that the map only shows the three continents and completely omits the unknown fourth continent, present in all other Beatus works. However, the Skiapod (the single legged man) who is usually shown inside the fourth continent of Beatus maps, such as that of Fig. 31, is nevertheless present here too, sitting in the top right corner of the map.

For complete toponyms of this map see Konrad Miller’s re-drawing of the map as shown in Fig. 30a.⁵² The numbers in brackets in the following paragraphs refer to those indicated on this re-drawing.

Paradise is at the top of the map, where East should be (1), though this is not named. One of the main biblical features of the map are the four rivers of Paradise, *Euphrates*, *Tigris*, *Fison* and *Gihon*, flowing out of Paradise into the surrounding ocean. This ocean is named *Mare Magnum*, a name normally reserved for the Mediterranean.

⁵² Miller, Dr. Konrad - *Die Ältesten Weltkarte*, Stuttgart, 1898, Volumes I through VI (in German), Vol. 1, p.31.

Armenia Maior is depicted at the top left corner of the map (2), located in the quarter of the earth that is entitled *Asia* (3). The river *Araxes* (4) is running from the region of *Armenia* into the surrounding oceans (*Mare Magnum*). *Capadocia* (16) and *Bitinia* are two provinces neighbouring Armenia. No other Caucasian countries are specified. This quarter of the map seems to be the only one which is topographically relatively correct and bears similarities with the other Beatus maps as far as province and country placing are concerned.

The world is bisected by the Mediterranean Sea (5), which runs the length of the whole world, between the eastern and western oceans. There is a sea branching off from the Mediterranean towards the left (6) named *Mare Tii* (?) and divides *Asia* (3) from *Europe* (9a). This should be the Aegean/Black Sea/Dardanelles/Bosphorus, since *Constantinople* (12) is located at its shores. The river *Nile* (7) does not mark the border between *Asia* and *Africa* (8), but is shown as a river flowing inside Africa. The waterway dividing *Asia* and *Africa* is shown to be the Mediterranean Sea (5). *Africa* itself (8) has been allocated the top right corner of the oval earth surface, which is the smallest quarter of the map. In contrast *Europe* has been allocated the two lower quarters of the map (9a) and (9b), making it by far the largest continent. The body of water shaped like a striped cucumber separating *Africa* (8) from *Europe* (9b) is the *Red Sea* (10). It should, in fact, have been located between *Asia* and *Africa*. This is one of the errors caused by the inaccurate orientation of the map, where the southern and western territories have been marked in a confused manner.

In the left half of *Europe* (9a) we see *Jerusalem* (11) next to *Constantinople* (12), *Greece* (13) and *Arabia* (14), some of which are quite out of place. Some provinces of Italy such as *Calabria* and *Luca* (15) are shown on the two banks of a river. Crossing the Mediterranean, at the lower right we see *Rome* (17), *Vienna* (18), *Toledo* (19) and *Barcelona* (20). A most curious arrangement.

Above *Europe* (9b), *Africa* (8) contains the provinces and countries of *Egypt* (21), *Syria* (22), *Paletstine* and *Judea* (23), *Damascus* (24), *Ethyopia* (25) and *Mesopotamia* (26) all of them named, including the city of *Alexandria* (27) with a vignette of its famous lighthouse. In fact the continent of *Africa* should have been more correctly named "Middle East", since this would have made locations of the toponyms more acceptable.

The islands of *Cyprus* (28) and *Crete* (29) are two of the islands in the Mediterranean, which is alive with various fish and forms a single body of water, connected to the oceans and seas. One of the islands is named as *Lycaonia* (30), the name given to an island kingdom to the west of *Asia Minor*. Another island is named *Achaia* (31), which in fact is the name of a strip of the territory located inland in Greece!

Beatus of Liebana, *Apocalipsin*. Late twelfth century copy. Bibliothèque Nationale de France, Paris. MS na Lat. 1366, ff. 24v-25. Size approximately 43 x 32 cm.

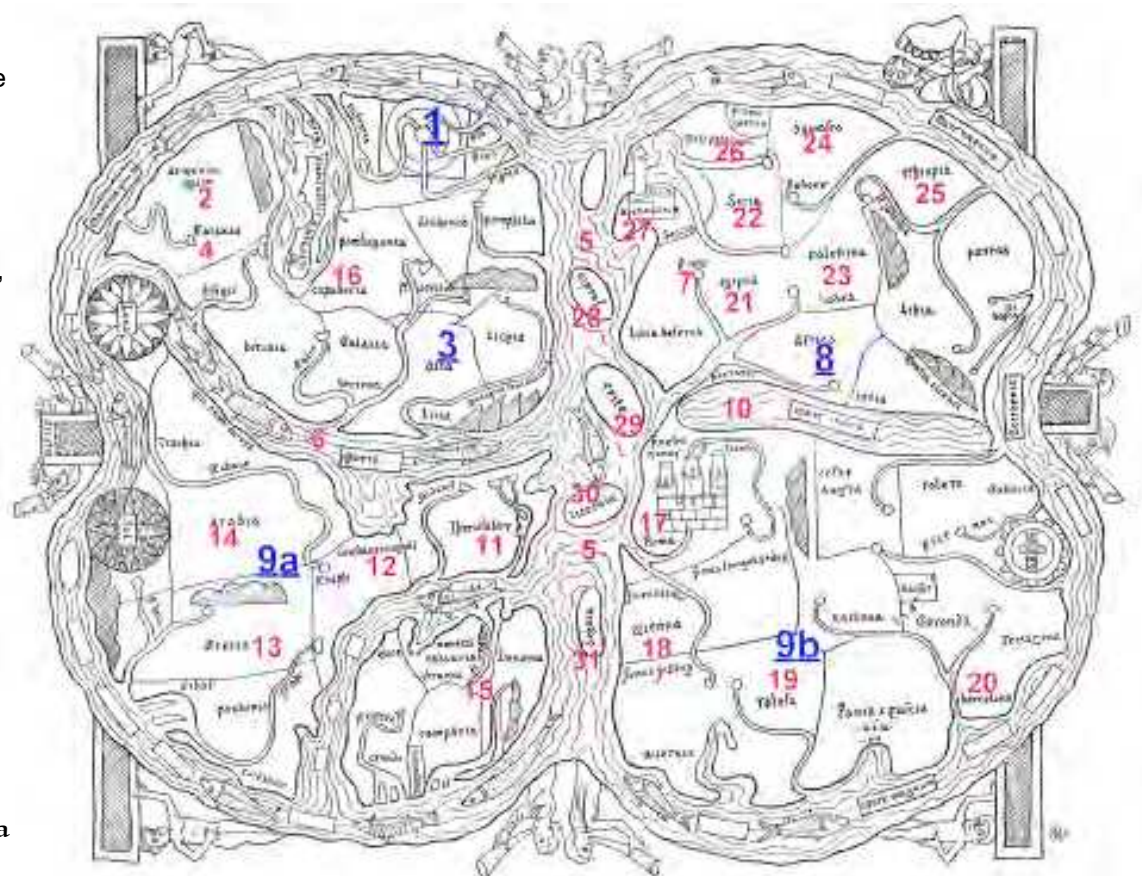


Fig. 30a



Fig. 31/31a – This beautifully executed world map of Beatus dates from a 1203 copy of his *Apocalipsin*, kept in the library of the Cathedral of Burgo de Osma in Spain.

This is a decorative T-O map featuring the Mediterranean as its most important component. It is slightly oval with east at the top and includes a few vignettes of various buildings, some rivers as well as islands in the Mediterranean and in the surrounding ocean. The rivers and the seas are coloured blue and mountains, green. The river *Tanais* (Don) separating *Asia* from *Europe* is shown as a wide waterway issuing from the mountains of *Ripheimontes* and going to *Padules Meotis* (incorrectly spelt, should be *Paludes Maeotis* – Azov Marshes). The source of the Nile is in central Africa. It first flows east then makes a sharp left turn and flows into the Mediterranean, remaining nameless throughout.

The space inside the fourth unknown continent is dominated by the Skiapod, who is sheltering from the red hot sun, hiding in the shadow of his large food. The text above him is the confirmation of this myth. The map's religious foundation can be confirmed with its depiction of the rectangular Paradise and the four rivers of Paradise flowing out and particularly by the presence of the twelve vignettes of heads with their accompanying legends, representing the twelve apostles. Jerusalem is not present but instead, the city of *Troia* is shown with the vignette of an arched building having three crosses on its domes; the only settlement to merit a cross.

In *Libia-Africa* the red wall shown near the mouth of the Nile is *Alexandria*, with *Faro*, the famous Lighthouse of Alexandria just below. African provinces shown include *Ethiopia*, *Egyptus*, *Getaulia* and two *Mauritanias*. Inside Europe the region of *Spain* is separated from the rest by a red line, apparently a later addition. The vignettes inside Spain are accompanied by the legends of *Asturia*, *St. Jacobus* and *Toledo*. Elsewhere in *Europe* there are the vignettes of the apostles *St. Paul* and *St. Peter* near *Roma* and a large building near the Black Sea, labelled *Constantinopolis*.

In northern Asia, just to the east of Troy and the Black Sea, one of the largest provinces shown is *Armenia*. It is located between *Aluania* (Albania) and *Frigia* and the mountains of *Aquilonis*, *Mons Caucasus* and *Mons Taurus*. The last two are shown as one large chain stretching from the eastern ocean almost to the Aegean Sea. *Alu[b]ania* is shown located west of *Mare Caspium* and a green mountain range called *Mons Aquilonis*.⁵³ The rivers *Tigris* and *Euphrates* flow from the south of these mountains down into the southern seas. *Mare Caspium* is shown as an inlet from the northern seas and has the two rivers of *Cirus* and *Oxus* flowing into it. The other provinces in Asia include *Hyrkania*, *Capadocia*, *Isauria*, *Licuonia*, *Mesopotamia*, *Fenicia*, *Parthia*, *Assiria*, *India*, *Babilonia*, *Judea*, *Palestina* and others. *Mare Rubrum* is shown coloured red, as a twin-bayed inlet from the southern seas. These two bays should be the Arabian and Red Seas. The vignettes of apostles *Thomas*, *Johannes* and *Bartolomeus* are located in north Asia, with *Jacob* and *Mathias* in south Asia. Here the name of the twelfth Apostle, Thaddeus is missing, while the name of Matheus appears once again in Eastern Europe.

For all names and toponyms see Konrad Miller's redrawing of the map in Fig. 31a.⁵⁴

CONTINENTS

1. Asia
2. Europe
3. Libia
4. Africa
5. Paradise

20. Cyrus (Kura)
21. Oxus
22. Indus
23. Jordan
24. Danube
25. Rhonnes

43. Gallia
44. Germania Superior & Inferior
45. Greece & Macedonia
46. Numidia & Mauritania
47. Egypt, Superior
48. Tripoli
49. The Lighthouse of Alexandria. The Pharos.
50. Alexandria
51. The Sun

SEAS

6. Mediterranean Sea
7. Black Sea
8. The Ocean
9. South or Arabian Sea
10. Red Sea
11. Adriatic Sea
12. Caspian Sea

COUNTRIES/CITIES etc.

26. Armenia
27. Albania
28. Frigia
29. Capadocia
30. Hyrcania
31. Assiria
32. Babilon
33. Judea & Palestine
34. Chaldea
35. Parthia
36. Mesopotamia
37. Anthiochia
38. Constantinople
39. Rome
40. Asturia
41. Toledo
42. Gallecia

ISLANDS

52. Britannia
53. Scotland
54. Tile (Iceland)
55. The Orkneys
56. Gades (City of Cadiz)
57. Taprobana (Ceylon)
58. Crete
59. Cyprus
60. Maiorca

MOUNTAINS

13. Caucasus & Taurus Mountains
14. Atlas
15. Ripheian Mountains

RIVERS

16. Tanais
17. Nile/Gehon
18. Tigris
19. Eufrates

Beatus, *Apocalipsin*. Dated 1203 CE.
Cathedral library, Burgo de Osma. MS Cod. 1, ff. 34v-35.
Size approximately 37.5 x 33 cm.

⁵³ According to Sylvia Volk, this mountain is possibly Mount Elbrus in the Caucasian Mountains. See website "Trivial page of Myths".

⁵⁴ Miller, *Die Ältesten Weltkarte*, 1898, Volumes I, p. 35

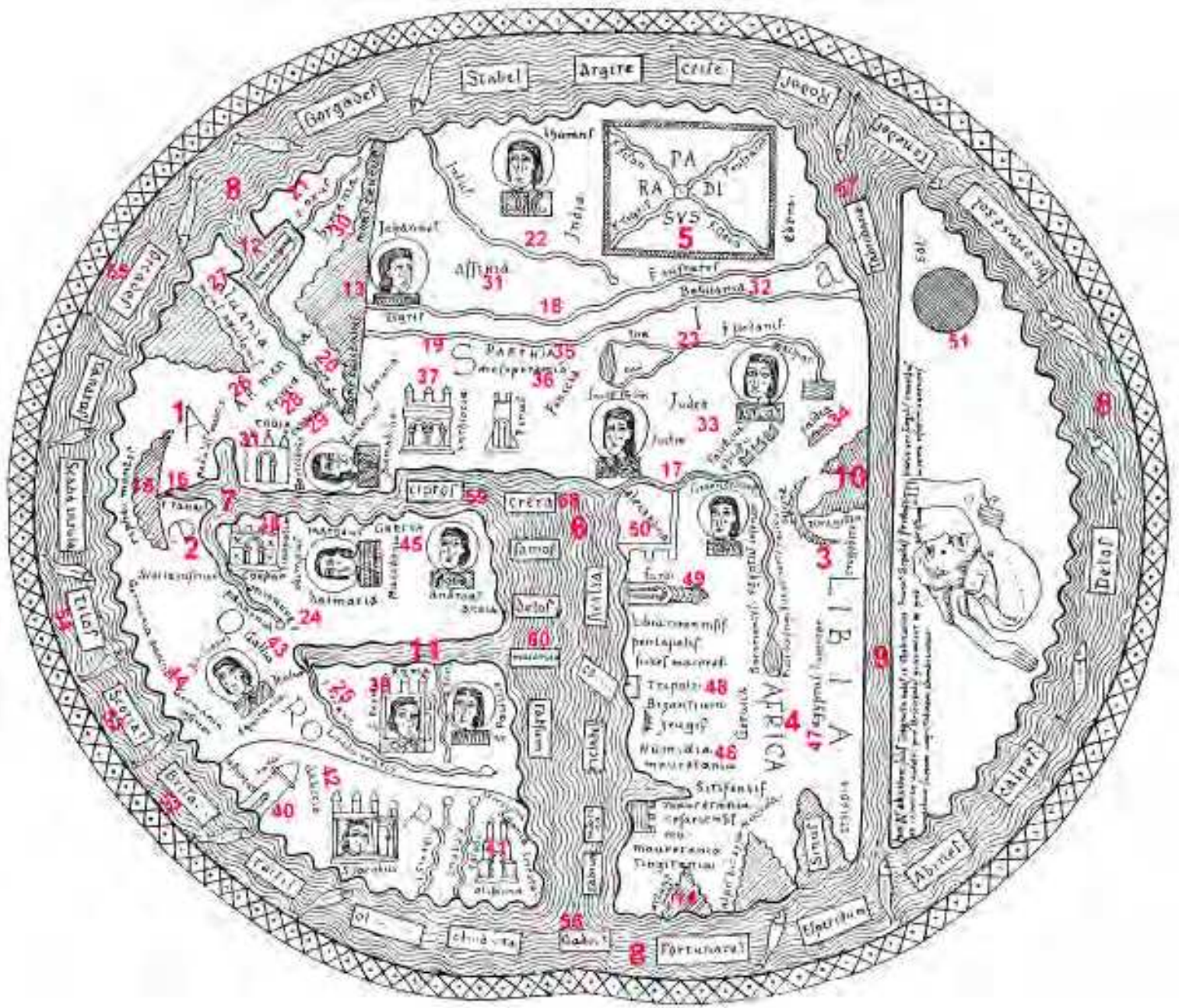


Fig. 31a

Fig. 32/32a – This is another Beatus map, extracted from a different copy of *Apocalipsin* in the National Library of France. This map is circular in shape and its presentation is somewhat different from the others. Dating from the first half of the thirteenth century, this is one of the later copies of Beatus maps.

The map is oriented with east at the top. Provinces are represented by vignettes of buildings and churches and the mountains by piles of rocks, all richly coloured. The fourth continent in the south (right) is very small and bears no inscriptions. Earthly Paradise is at the top, with figures of Adam and Eve trying to cover themselves. The surrounding ocean is full of fish, sailing boats, floating islands and a dragon. Although the map names many towns and countries, their relative positions are at best very approximate.

In this map the legend *Armenia* appears next to the large pile of rocks (mountain) at the top centre-left of the map, between the two unnamed rivers, which we can assume to be the Euphrates and the Tigris. Below, to the left of Armenia is the province of *Cappadocia*, which is shown sandwiched between mountains of *Armenia* and *Mons Caucasus* (Caucasus Mountains). There are no other Caucasian provinces depicted.

The vertical body of water connecting the eastern and western oceans is the Mediterranean. This layout is similar to that of Fig. 30 and remains an exaggeration and misrepresentation. The horizontal river going left from the Mediterranean represents the river Don flowing into the Black Sea, with the Black and Aegean Seas strung along a line. On the European side of the water, to the right of the two rivers flowing into the sea is the city of Constantinople, marked with a banner bearing a red cross, with Thessalonica to its right. On the right of the vertical Mediterranean, is the river Nile marking the border between Africa and Asia with its downward curving path. The floral depiction at its end is the lake which was assumed to be the source of Nile. To the east of this lake we can see *India* (?). This terminology was often used very loosely to indicate eastern or far-away lands. In this case it could be assumed as referring to Ethiopia.

The mountains to the right of Paradise are (from top) *Mons Liban* (Mount Lebanon), *Mons Syriai* (Syrian Mountains), *Mons Syna* (Mount Sinai) and *Mons Carmel*. Jerusalem (*Ihrlm*) is located directly below Adam's feet followed by *Askelon* and *Judea*.

Inside the territory of Europe the map shows many vignettes and toponyms. In order to accommodate all these names and to make space, the boundaries of Asia have been pushed upwards. *Anglia* (England) is the second island in the group of four islands located at the lower left of the map, with *Irlanda* (Ireland) to its left. *Scocia* (Scotland) is inexplicably pushed far eastward and appears at the top left of the map near *Armenia*.



Fig. 32a is Konrad Millers re-drawing of this map, where the toponyms are clear and more legible.⁵⁵

Beatus of Liebana, *Apocalipsin*. Thirteenth century copy.
Bibliothèque Nationale de France, Paris. MS na Lat. 2290, ff. 13v-14.
Size approximately 39.8 x 37.6 cm.

⁵⁵ Ibid., p. 39.



Fig. 32

CHAPTER THREE

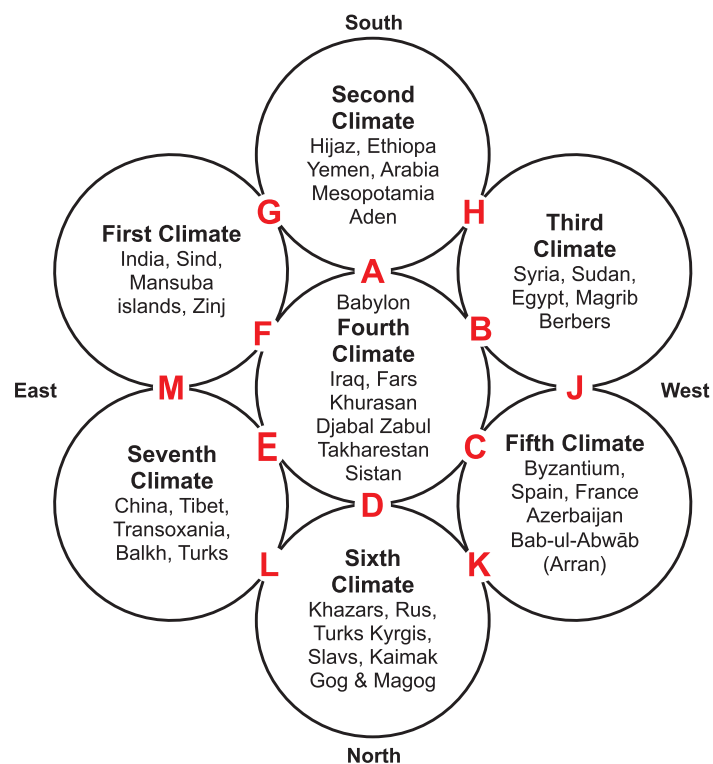
ISLAMIC MAPS (Tenth to fourteenth centuries)

Islamic cartography can be considered as the true follower of the Classical Greek cartographical tradition, whose theories about the construction of the universe, the climatic zones, surrounding oceans and even the size of the Oikumene (the inhabited world) were adopted by the Arabs. Islamic geography and mapmaking came into being sometime during the early ninth century and continued for some 350 years. Although there were some important geographers who worked after the thirteenth century, they were far fewer in number than those who thrived during the preceding period. Many important Islamic or so called “Arab” geographers were in fact Persian by origin. They lived under the domination of the Arab Caliphates and studied Arabic for use as their written language. Among important Persian geographers are Abu Ishāq Ibrāhīm Ibn Muhammad al-Istakhrī (died 957 CE), Abu Reihān Mohammed bin Ahmed Birounī (972-1048 CE), Zakaryā Ibn Muhammed al-Qazwīnī (1203-1283 CE) and Hamd Allāh al Mustawfī-al-Qazwīnī (c. 1281-1339). Arab travellers such as Ibn-Batuta (1304-1368/9), traveled as far as Russia, northern Caspia (1330-1335), Central Asia, India, China (1345-1349) and other far-flung

places, increasing their knowledge of the world; a factor reflected in their geographical works and later maps.

There are no surviving maps from the early period of Islamic cartography, but according to some manuscripts, the most important map prepared during the early ninth century was that of Calif al-Ma'mūn (ruled 812-833 CE), which was a world map drawn according to the Persian “kishvar” (country) tradition.⁵⁶ In this tradition the world was divided into seven countries, each indicated by a circle; with six outer circles surrounding the central, seventh one. During this period the Arabs and the Persians had already become familiar with Ptolemy's works and since the archaic kishvar tradition could not be reconciled with Ptolemy's “Geography”, it was gradually substituted by the Balkhī School of cartography, which in many respects did concur with it.

The following diagram shows the “kishvar” system, drawn with south at the top. The areas common between the neighbouring circles are identified by letters A to M, which are named as follows:



- A – al-Tha'labiya
- B – al-Sham [Syria]
- C – The Nasibs
- D – Azerbaijan
- E – River Balkh
- F – Land of Daibel
- G – Gulf of Bahrain [Persian Gulf]
- H – Sea of Ethiopia
- J – Byzantine gulf [Mediterranean]
- K – Gog and Magog
- L – Gog and Magog
- M – Kashmir

Diagram of the Persian “kishvar” system.
From Ahmed Zekī Validī
Togan's article “Bīrunī's world”,
Delhi 1937, p. 61.

⁵⁶ Harley, J. B. & Woodward, David, *The History of Cartography*, Vol.1, Vol.2 Books 1 & 2, Chicago, 1987, 1992, 1994, Vol. 2, pp. 90-107.

The most common Islamic world maps are those of the Balkhī School, with most sharing certain general characteristics. They are usually oriented with south at the top and most show the seven climatic zones dividing the inhabited world into the various climates. The important seas in the maps are the Mediterranean (Bahri Rōm), which at its eastern end bends northward and leads to the Black Sea. In the south there is a large sea, the Indian Ocean or Arabic Sea and the Persian Gulf, with some islands. In the north the Caspian Sea (Bahri Khazar) is shown as an inland lake, sometimes with islands, as well as the Sea of Aral (Bahri Khāwrazm) with the river Oxus. This is an improvement on ancient cartography, where the Caspian was shown as a gulf connected to the northern oceans. Tigris (Dejleh) and Euphrates (al-Farāt) are usually shown flowing into the Persian Gulf, while the Nile is shown rising from the Mountains of Moon in Africa and flowing towards the Mediterranean. The all-encompassing ocean and the Mountains of Ghāf surround the world. The biblical tribes of Gog and Magog are shown surrounded by a wall built by Alexander the Great, separating these unruly and aggressive tribes from the rest of the world. (See Old Testament, Ezekiel Ch. 38 and 39).

Islamic books of geography and travel may contain world maps, but when it comes to provinces and regions, they generally show maps of Islamic countries only. The tenth century Arab traveller and geographer al-Muqaddasī (945 - c.1000 CE) in his geographical treatise entitled *Ahsan al Taqhāsīm fi Ma'rifat al-Aqālim*, (The best divisions for the knowledge of the Provinces), written around 985 CE states:

*We have written here only about the realm of Islam; we do not bother ourselves with the countries of unbelievers and we see no use describing them. Of course we mention those areas amongst them where Muslims live.*⁵⁷

Inland the features and places depicted are concentrated in the provinces of Persia, the Middle East and Central Asia. The provinces of Fārs, Deylam, Kirmān, Irāq, Jazeera (Mesopotamia), Sistān, Sind, Hind (India), Tabaristān (Mazandaran), Khāwrazm (Turkestan), al-Misr (Egypt) and al-Shām (Syria) are generally shown on the world map, followed by individual maps of each of these

provinces. In Islamic world maps, countries considered and depicted outside the dominion of Islam are Andalus, Rōm (Rome), Bulgaria, Russia, Arrān (Caucasian Albania), Saqāliba, Armenia, India and China.⁵⁸ None of the non-Islamic countries merit a separate regional map, except Arran and Armenia, both Christian countries northwest of Persia. It is by virtue of their proximity to the Iranian province of Ādharbeijān (Azerbaijan, located to the south of the Arax river) that these two countries appear in almost all Islamic geographical theses on a separate sheet entitled *Armīniya, Arrān va Ādharbeijān* (Armenia, Albania and Azerbaijan). It is interesting to note that this particular regional map is always oriented with north at the top, while most of them are oriented with south at the top. In the texts accompanying this map it is common to see the following clarification:

These three countries are adjacent and their borders are often not clearly defined.

From the countries in the area of South Caucasus the names of the territories of Iberia and Colchis do not appear in Islamic maps. However, as mentioned above, Azerbaijan features prominently in all these maps, but this refers to the northwest Persian province of Azerbaijan. The country of Arrān (Albania) is present in Islamic regional maps, since the population of the area had already been converted to Islam and Arrān was considered as an Islamic region, thus suitable for inclusion in the maps. The approximate division of the area located northwest of Persia is as follows: Arrān occupying both shores of the river Kura, extending from Tbilisi to the Caspian Sea, Azerbaijan – south of Araxes and east of Lake Urmia, up to the Caspian Sea - and finally Armenia – from the shores of the Araxes extending westward from Lake Urmia.

Maps in most Islamic atlases or books of geography number between 17 and 21 with the exception of al-Idrīsī, who has 70 detailed regional maps in his "Book of Roger" and his smaller atlas. These 17 to 21 maps appear, in one format or other appear in most Balkhi geographical manuscripts, such as those of Ibn-Hawqal, al-Istakhrī, al-Muqaddasī and others. Some are more diagrammatic, containing lines and circles (Figures 38, 39, 41 and 43), others being more decorative and elaborate, with mountains shown as undulating lines or curves, blue seas replete with foaming waves and other colourful features (see Fig. 47 and 48).

⁵⁷ Al-Muqaddasi, *Ahsan al Taqhāsīm fi Ma'rifat al-Aqālim*, translated from Arabic by Prof. Basil Collins, Reading, 2001, p.8. MS p.9.

⁵⁸ *Encyclopaedia of Islam*, New Edition, Leiden/London, Vol. 8, 1995, pp. 872-881.

Most Islamic regional maps can be considered as artistic drawings, some resembling stylised itineraries showing roads, cities and towns, with no due attention to their relative geographical distances (see Figures 38 to 41 and their comparison with the London Underground map of Fig. 42). Others are aesthetic and elegant works of art.

Given their many similarities, we can conclude that

the maps of Azerbaijan, Arrān and Armenia from the works of Ibn-Hawqal, al-Istakhrī and al-Muqaddasī, belong to the same school and have drawn from similar source material.

In the following pages some of the important Islamic world and regional maps are reproduced and discussed, with particular emphasis on those showing the region of Armenia, Arrān and Azerbaijan.

1 – IBN-HAWQAL

The earliest known Islamic geographer is Balkhī, after whom the first school of Islamic geography is named. Abu Zaid Ahmad Ibn Sahl al-Balkhī, ابو زيد احمد ابن البلخي (died 934 CE) was a mathematician and scholar, who spent his life in Baghdād and during the latter part of it moved to Balkh where he wrote his geographical thesis. This was a tome consisting of a number of maps accompanied by their descriptions. None of his

manuscripts or maps have survived. The earliest surviving manuscript of Islamic geography is that of Abu al-Qāsim Muhammad Ibn-Hawqal, ابوالقاسم محمد ابن حوقل (traveled between 943-973 CE), entitled *Surat ul-Ardh* صورت الارض (Picture of the Earth). This is a book on the geography of the world, with the conventional number of maps (about 21), accompanied with chapters of descriptive texts.

Fig. 33 & 34 – This is the map of “*Armīniya, Arrān and Ādharbeijān*” by Ibn-Hawqal, taken from the abridged version of his geographical book entitled *Surath ul-Ardh* صورت الارض (Picture of the Earth). The book contains a world map as well as a number of regional ones. In the map the rivers are coloured blue and the mountains – light brown.

Fig. 33 is the only map in the book with a northward orientation (or Northeast to be precise). The two blue strips are the rivers Arax and Kura, flowing into the Caspian Sea, in the middle of which, in larger script, the legend ارانيه (Arran – Albania) is inscribed. Below the Arax River in large and elongated lettering we can see آذربايجان (Azerbaijan) and lower still, towards the west, between the right extremity of the river at the bottom of the map and the egg like outline of the *Buhaire Kabutān* (the Armenian name for Lake Oroumieh) the bold legend reads ارمنييه (Armenia). The cities and places belonging to these realms are stated to be:

- Arran – *Bāb ul-Abwāb* (Derbend), *Shirwān*, *Shamakhiya* (Shamakha), *Shaki*, *Tiflis*, *Jenzeh* (Ganje), *Bardahe*
- Azerbaijan – *Marand*, *Khunj*, *Tabriz*, *Ardebīl*, *Zanjān*, *Marāghe*, *Dājermān*, *Ushneh* (Oshnaviyeh), *Khoy*, *Urmīya* and *Buhaire Kabutān* (Lake Oroumieh)
- Armenia – *Khilāt*, *Dvin*, *Warthān* (possibly Varzaqān), *Kāliklā* (Karin or Erzurum), *Arzan*, *Bitlīs*, *Miāfārgihin*⁵⁹ (outside the brown mountain range), *Buhaire Khilāt* (Lake Van) and *Jabal Hāridh* (Mount Ararat).

The two rivers at the bottom of the map are *Zāb ul-Kabir* and *Zāb ul-Saghir* (Greater Zāb and Lesser Zāb), two tributaries of Tigris, which itself lies outside the area of the map.

Fig. 34 is the page containing the description of the map. At the foot of the page we can see the title of the map in large red lettering *Surath Armīniya Ādharbeijān va Arrān*, “The map of Armenia, Azerbaijan and Caucasian Albania”.

Fig. 33 – Ibn-Hawqal, *Surath ul-Ardh*. Copy dated 1145 CE.
Bibliothèque Nationale de France, Paris. MS Arabe 2214, page 58 of MS.

Fig. 34 – as above, page 57 of MS.

⁵⁹ The old city of Tigranakert (near Silvan), which was one of the capitals of Armenia, built by King Tigran the Second, during 70's BCE. Հակոբյան, Թ. Խ., Մելիք Բախչյան Ս. Տ., Բարսեղյան Հ. Խ., Հայաստանի և հարակից շրջանների տեղանունների բառարան - հատ. 3, Երևան 1991, էջ 678 և 818, նաև հատ. 5, Երևան, 2001, էջ 92:

ذابغية على ركبته ومدفوق اصابعه يده. لكن يحب اربعة وثماته ما يحمل الي هذا العنصر من المال فيخذ القرض
 الهباري امر المنصور والملتان وبلك البلاد وينفق على السلطنة منهم كفايتهم وقد فصلهم الهد غير مني للثلب فاقول
 روا عليهم لان على الملتان حصن وبها منعة وهي خصبة رحيمة الاتعار وفي اهلها رغبة في القران وعلمه والاهل
 جيد بالمقار السبعة ومجبة العلم والفقه والادب وفيهم حياء وزعماء اخلاق ومجاريح الملتان بنصف فرسخ منها اربعة
 كثر شرف بلجند روز وبها مسكن الاخير فلا يدخل الاخير منها الي الملتان الا في يوم الجمعة يركب الفيل ويدخل فيصلي
 الجمعة باهلها ويؤد على الفيل الي دارا مازيه وهو من ولد اسامة بن لؤي بن غالب وابيس هو في طاعة احدثها
 انه جعل لبني العباس قال كاتيب الاحرف اظن ان الهود انتقل بعد هذا الاين وجدت في الكتاب الذي الله الفيل
 الكاتيب مناقب السلطان محمود بن سبكتكين وضوحه انه استمع الملتان في سنة اربع مائة بعد واقعة عظيمه
 حركت مع ملكها وخروب جمة قد بالغ في وضعها العتيق **ويسهل** مدينة خصبة من ناحية الملتان وشرب اهلها من
 الخبار ومدنه الزور تقارب الملتان في اكنس وعليها سوران وهي على شطرها من مهلت خصبة زهية كثر التجار
والدينار عن شرفي قهر مهران على البحر وهي مجر عظيم وتجارها من وجوه كثير وهي فضة هذه البلاد وغيرها
 وهي بلاد تشف وندو عظم مباحس وانما مقام التجار وبافي البلاد كلها ملدت متقاربة في الاقتصاد فيها ساكن
 حوامع وفيها احكام المسلمين وهي منقبة خصبة وبها الناجل الكبير يعملون منه الشرب فيسكروهم وهو كما في
 صفا وبيضا ورفه تسمى الاطواق ويخذ منه اللؤلؤ فيكون في غاية النوضه والغالب على زروعهم الازدوقم
 الغسل الكثير وقد اثبتت من هذا اللؤلؤ الي آخر حدود الاسلام مفرح لان الي ذكر اربعينيه وان كان وادرجان
 وما قاتها الي آخر الاسلام في حد المشرق

القرات

نقل عن

النار جيل

وهذه صورة ارمينية وادريجان واران

الملك تاجي

Fig. 34

Fig. 35 – This is another map entitled “*Surath Armīniya va Ādharbeijān va Al-Rān*” by Ibn-Hawqal (Map of Armenia, Azerbaijan and Arran), from his geographical book *Surath ul Ardḥ* kept in the Topkapi Museum Library in Istanbul. The original work dates from around 973 CE but this copy is from the year 1086 CE.

The map is one of 21 in the book. It is shown oriented with northeast as the top, but is in fact oriented with North at the top. It depicts the area of north-western Iran located between the Caucasus and Taurus ranges and the Caspian Sea. Here the lakes are coloured green, single and important mountains are red, mountain ranges are dark blue, rivers are coloured light blue and the roads, orange. The legend ink colouring is also variegated. City names are in black, while region, province and mountain names are written in green ink. The massive body of Green water at the right is part of the Caspian Sea.

The territory of Arrān appears to the north of *Nahr ul-Ras* (Arax River), shown as the horizontal orange-bordered blue line in the centre of the map. The other river running from the Northwest is the river *Nahr ul-Kur* (Kura river). The two rivers are shown flowing into the Caspian separately, despite being connected by double orange lines some distance before they enter the Caspian. This is an error repeated in many Ibn-Hawqal and al-Istakhrī maps of the region (see Figures 36 to 40). Azerbāijān is located southwest of Arax and Armenia is to the west and northwest of Azerbaijan. Here the important towns are shown interconnected with commercial highways, shown with straight orange lines, with the towns of *Bardahe* in Arrān and *Ardebīl* in Ādharbeijān as the two main junctions of these “interstate” highways.

In the centre of the map, south of the *Arax* river the inverted green legend reads *Ādharbeijān*. To its left the vertical legend shows *Armīniya* and to its right is *Deylam* (Iranian province of Gilan today). The legend *Al-Rān* ايران is written in green ink upside down above the river Arax. The main towns of Arrān on the road leading northwest from *Bardahe* are *Jenzeh* (today - Ganje), *Shamkhur*, *Khūnān*, *Qal’ah* (Gardabani or Qandaman) and *Tiflis*, while the road to northeast passes through *Bardaj*, *Shamākhiye*, *Shirwān* and *Shābarān*. At the top right on the shores of the Caspian the legend reads *al-Bāb*, the city than known as Bāb-ul-Abwāb (today’s Derbend).

The territory of Armenia is indicated with a legend written vertically, ارمينية across the road going southwest. This road begins from *Ardebīl* in Ādharbeijān and passes through *Sarāh* [b], *Marāgha*, *Dākhergān*, *Tabriz*, *Salmās* and *Khoy*. Entering *Armīniya* it continues through *Berkrī*, *Arjish*, *Khlāt* and *Bitlīs*. The lake shown in the territory of Armenia is *Buhaire Khlāt* (Lake of Akhlāt of Vān), while the territory to the south of this lake is named as the *Region of Vān and Vostān*. To the north of the lake the twin mountains of Ararat are shown with the legend bearing their Arabic name (*Jabal ul-Hārith va al-Hūayrith*), with *Dabīl* at its northern and *Nashwi* (Nakhijevān) on the eastern slopes. At the western edge of the map the towns of *Arzan* and *Miāfārgḥin* are also shown. Another road running west from *Ardebīl* passes through *Meymand*, *Ahar* and *Varzaghān*, prior to entering the territory of *Armīniya* and the town of *Dabīl* (Dvin).

The territory of Ādharbeijān اذربايجان is marked with the legend again appearing upside down below the river Arax, near the town of *Ardebīl* where the four roads meet. Within it we also see a red mountain with the legend *Hadha Jabal Sabalān* (here is Mount Sabalān). To the south we see Lake Urmiya bearing its Armenian name *Buhaire Kabutān* (Kaputan in Armenian means blue). The town of *Urmiya* is situated south of the lake. The second road in the territory of Azerbaijan goes southeast from *Ardebīl*, passing through the towns of *Miāneh*, *Khunj* and *Zanjān*. The small town of *Neriz* is located west of the road leading to Zanjān. The two rivers at the bottom of the map flowing southward are the two tributaries of Tigris, *Zāb ul-Kabir* and *Zāb ul-Saghir* (Greater Zāb and Lesser Zāb). This is a common feature in Ibn-Hawqal’s maps, usually absent in the works of the others.

To the east of Azerbaijan the triangularly arranged legend reads *Jabal ul-Deylam* (Deylam or Alborz mountain range). Above it the circular peninsula jutting into the Caspian is entitled *Mughan*, which in fact is the name of the plain to the south of the Arax river.

The next six maps of the regions of Armenia, Arrān and Azerbaijan by other geographers, while very different in presentation and some details, share many characteristics with the two maps of Ibn-Hawqal.

Surath ul-Ardḥ, Ibn-Hawqal, MS copy dated from 1086.
Topkapi Sarai Museum, Istanbul. MS A-3346, fol. 94a.

2 – AL-ISTAKHRĪ

Ibn-Hawqal's contemporary was Abu Ishāq Ibrāhīm bin Muhammad al-Farsī al-Istakhrī known as al-Istakhrī, ابواسحق ابراهيم بن محمد الفارسي الاصطخري (died 957 CE). They discussed their work with one another, though Ibn-Hawqal was sometimes critical of al-Istakhrī for his lack of attention to detail. Al-Istakhrī is known primarily for his book of geography entitled *al-Masālik va al-Mamālik* كتاب المسالك والممالك (Book of Routes and Realms), which

contains the 19-21 maps including a world map, together with chapters of text providing descriptive information about each map, provinces and peoples living in them. As in Ibn-Hawqal's work, there is a chapter on "Armenia, Arrān and Azerbaijān", where the names of the cities in each of these three countries are listed. Thirty-four of al-Istakhrī's manuscript copies have survived, most of them with many maps of which the oldest dates from 1173 CE.⁶⁰

Fig. 36 – This is a world map drawn in line with the Islamic traditions, taken from al-Istakhrī's original manuscript entitled *Kitāb ul-Masālik va al-Mamālik* كتاب المسالك والممالك (Book of Routes and Realms), a geographical treatise on the whole of the inhabited world. The map has south at the top and as per the Balkhī School of mapmakers, includes the Mediterranean and Indian Seas, with other standard features of the Islamic world maps. This is from a Persian translation of al-Istakhrī's manuscript copy dated 1836.

This manuscript contains 18 other maps of various provinces of the Islamic world, including those of Iraq, Mesopotamia, Egypt, North Africa, the Persian Gulf, Kermān, Khorāsān, Fārs, Sahastān (Sistān), Khāwrazm (Oxiana), Khazar (Caspian), as well as the eastern region of the Caspian, entitled "*Arrān, Azerbāijān and Armīniya*".

The large sea shown on the left is a combination of the Persian Gulf, Arabian Sea, Indian Ocean and Pacific Ocean shown with four circular islands. The sea on the right is the Mediterranean, with the downward curving Aegean Sea leading to the Black Sea, depicted as the bulge at the end of the curved line (though could conceivably be the Caspian Sea, which is not shown separately). The Mediterranean is bereft of any islands here, and the blue circle at bottom left is the Aral Sea. The large lip-like features on top of the map are the mountains of the Moon, thought as being the source of the Nile, while the five parallel lines are the five sources, thereafter combining to form the Nile, flowing north into the Mediterranean.

The map shows *Armīniya* (Armenia) located southwest of the Caspian (or Black Sea), next to *Azerbāijān*. Countries around the Caucasian Mountains are *Armīniya*, *Azerbāijān*, *Khazar*, *Vilayet Rūm* and *Saqāliba*.⁶¹ This map tends towards the more decorative rather than true representation of Islamic geography, a truer sample of which can be seen in the next figure.

From al-Istakhrī's MS copy of *al-Mamālik va al-Masālik*. Copy dated 1836 CE.
British Library, London. Ref. Add. MS 23542, f. 59a.
Diameter approximately 18.5 cm.

⁶⁰ Harley and Woodward, *History of Cartography*, Vol. 2, Chicago, 1992, p.130.

⁶¹ See footnote 58.

جنوب

کوه خاف و درای محیط



شمال

Fig. 36

Fig. 37 – This world map is from al-Istakhrī's manuscript copy of *Kitāb ul-Masālik va al-Mamālik* كتاب المسالك والممالك (Book of Routes and Realms), which is kept in Iran Bastan Museum in Tehran. This is a Persian translation of the book, dating from 1325 CE.

The map follows all the traditions of the basic Islamic world maps by giving prominence to the Mediterranean Sea, the Indian/Arabian Sea and the Persian Gulf. The Gulf as well as the Mediterranean have each been shown with three islands. The Black Sea seems to be the waterway connecting the Mediterranean with the surrounding ocean, but the Caspian and the Aral Seas are shown as circular inland lakes, with wide rivers flowing in.

In the territory of Africa countries specified include *Misr* (Egypt), *Maghrib*, *Land of the Blacks*, *Sehhe*, *Habashe'* (Ethiopia) and *Zangbār* (Zanzibar). The *Nile* is the vertical blue strip descending from *Habashe'* to the Mediterranean, where it arrives between *Misr* and *Maghrib*. In Asia, which occupies the bulk of the map, there are many countries and provinces shown from *Shām* (Syria) in the west to *Chin* (China) in the east and *Khuzestān* in the south, to the land of *Gog and Magog* in the north. Most of the legends, however, are those of the various provinces of Persia. In Western Europe the map shows few countries, namely *Vilayet Rūm* (Byzantium), *Saqāliba* (Land of the Slavs), *Vilayet Farang* (France), *Andalūs* and further east and near the centre, *Rūs*. The Mediterranean is shown with three large islands, westernmost of which is *Cyprus*, the others being *Eqrītes* (Crete) and *Saqālia* (Sicily).

The name of Armenia should be on the map, since it appears in the text as well as in the regional map entitled *Surat Armīniya, Arrān va Ādharbeijān* of the same manuscript (see Figure 39). However, part of the map, which should have borne this name, is in the fold of the paper and has been damaged and the writing partially obliterated. The name of Arrān has also been rendered indiscernible by this damage. These should have been inscribed in the area between the Caspian, shown as comma-shaped, and the Black sea, which is the slanted blue band connecting the Mediterranean, located below centre-right, to the ocean below. Only the names of *Khazar* and *Ādharbeijān*, which are above the damaged area (south), are partially legible.

Al-Istakhrī's *al-Mamālik va al-Masālik*. MS copy dated 1325 CE.
Iran Bastan Museum, Tehran. Ref. MS.3515, ff. 3a-2b.



Fig. 37

Fig. 38 – This map is entitled *Surat Armīniya va Al-Rrān va Ādharbeijān* (Azerbaijan) by al-Istakhri, and is one of the regional maps taken from a copy of his manuscript work entitled *Kitāb ul-Masālik va al-Mamālik* كتاب المسالك والممالك (Book of Routes and Realms) dating from c. 950 CE. The manuscript copy was made in 1173 CE and is now kept in Leiden, Netherlands.

The map is oriented with north at the top, which in al-Istakhri's manuscripts is the norm for maps of this region. Here the cities are represented by green circles with red "halos", mountains by purple decorated pyramids, rivers with double lines and roads by single red lines. On the western shores of the Caspian, inside the territory of Arrān, the map shows *Bāku*, and *Bāb-ul-Abwāb* (Derbend), with *Shirwān*, *Shamākhī* and *Shakī* to the north of the river Kura. To the south of the river the cities of *Tiflis*, *Qal'ah* (Gardabani or Qandaman), *Shamkur*, *Khunān*, *Jenzeh*, *Bardahe* (Barda) and *Bylghān*, are also shown in the territory of *Arrān* (Albania). The river Arax forms the natural border between south *Arrān* and north *Ādharbeijān*.

Further south, in the territory of Azerbaijan, south of *Deilam Mountains* there is another river flowing into the Caspian, entitled *Sefid Rūd* (White River), presently located within the Gilan province of Iran.

Further south of the River Aras or Arax, at the western edge of the map the cities of *Kāliklā* (the old Armenian city of Karin, now Erzurum) and *Malāzgerd* are shown as large towns, not connected by the main roads. Next to *Malāzgerd* are the twin peaks of Ararat, to the northwest of which lies the old Armenian capital *Dabīl* (Dvin). The twin peaks of Ararat here bear their Arabic names, *Jabāl al-Hārith*, *Jabāl al-Hūayrith*. Starting from the southwest corner of the map, the road passes through the Armenian cities of *Āmad[jia]*⁶², *Miāfārgihin*⁶³, *Bitlis*, *Khilāt*, *Arjesh* and *Berkī* and continues through Azerbaijani cities (see below). The large settlement at the bottom of the road is *Arzan*, also in the region of *Armīniya*, (Armenia). The large circular lake, half of which is shown on the map, is entitled *Buhaire Armīniya*, the Armenian Lake, or Lake Van.

South of *Mount Sabalān*, the large mountain in the centre of the map, from the right we see the cities of *Ardabīl* on the crossroads, and going west - *Māneh* (should be Miāneh), *Sarāb*, *Eram*, *Ahar* and *Marand*, all cities in Azerbaijan. East of *Mount Sabalān* the town of *Warthān* (in Armenian Vartanakert) is shown on the south bank of the river Arax, opposite *Bylghān* or *Bailākan*. The sloping road leading southwest passes through the Azerbaijani cities of *Marāgheh*, *Dākherghān* (today's Azarshahr in Iran), *Urmīya*, *Salmās* and *Khoy* before entering Armenia. Other cities of Azerbaijan shown on the map include *Tabriz*, *Ashneh* (today's Oshnaviyeh) and *Zanjān*.

True to its title, "Book of Routes and Realms", the map shows the roads connecting all the major cities of the region in a stylised manner, thus making it one of the first Islamic road maps.

Al-Istakhri *al-Mamālik va al-Masālik*. MS copy dated 1173 CE.
Leiden University Library, Netherlands. Ref. OR.3101, p.71.

⁶² Amadia (in Armenian- Amid) was a castellated Armenian town today situated in the territory of east Turkey.

⁶³ See footnote 59.

Fig. 39 – This copy of al-Istakhrī’s map entitled *Surat Armīniya va Arrān va Ādharbeijān* has been taken from yet another copy of al-Istakhrī’s manuscript of *Kitāb ul-Masālik va al-Mamālik* كتاب المسالك والممالك, the original of which was written in 950 CE. This copy is kept in the Museum of Iran Bastan in Tehran and is a Persian translation of the manuscript, dating from 1325 CE. The map is oriented with north at the top.

The map is very similar to that of the previous figure and all the description of Fig. 38 apply equally to this copy. The main difference is that the cities are coloured in a variety of colours and the city of *Nashwi* (Nakhijevan) is shown at the foot of the Small Ararat, where *Dabīl* used to be, and *Dabīl* has been elevated to near the summit of Small Ararat, here named *Māsst* (in Armenian - Māssis). Here the differences created by the copier of the map are very clear. The scribe may have used a previous map as a source, but has also used his imagination in presentation of various features of the map. The error in naming Ararat as *Māsst* instead of Māssis, is due to the scribe’s unfamiliarity with the name. The misplacement of the dots in the Arabic script, which has changed the letter from “is” to “t”, thus renaming this mountain.

Someone has later corrected the course of the river Arax to join the Koura prior to flowing into the Caspian, whereas in other old maps these two rivers are shown each flowing into the Caspian separately. The correction has been made subsequent to the completion of the map and is drawn in different ink.

On the western shores of the Caspian we see *Bāb-ul-Abwāb* (Derbend, orange), *Shābarān* (red), *Bāku* (green), with *Shirwān* (grey), *Shamākhi* (orange) and *Shaki* (red) to the north of the river Kura. To the south of it we note *Tiflis* (orange), *Qal’ah* (green), *Khūnān* (red), *Shamkur* (green), *Jenzeh* (orange, misspelled in the map), *Bardahe* (Barda - red) and *Bylghān* (green), all shown in the territory of *Arrān* (Albania). The river *Arax* is south of *Arran*, between *Arrān* and *Ādharbeijān*.

Further south, in the territory of Azerbaijan, south of *Deilam Mountains* (the Alborz range) there is another river flowing through *Gilān* (or *Tabaristān*) province of Iran into the Caspian Sea. It’s name is given as *Sefid Rūd*, White River.

To the South of the river *Aras* (or *Arax*), at the western edge of the map we note the city of *Kāliklā* (in yellow, the old Armenian city of Karin, now Erzerum) and *Malāzgerd* (red). Next to *Malāzgerd* are the twin mountain peaks of Ararat (see paragraph two above). To the east of these lies the Armenian city of Nakhijevān, here named *Nashvi* (yellow). Between the twin peaks of the Ararat, the old Armenian capital *Dabīl* (Dvin – red) is also shown. The road leading from Ardebil south-westward is lined with the cities of *Khunj* (orange), *Marāghe* (green), *Dākherghān* (red), *Urmiya* (green), *Salmās* (orange) and *Khoy* (green). The road then carries on to the territory of Armenia and passes through *Berkīrī* (red), *Arjesh* (green), *Khilāt* (orange), *Bitlis* (grey), *Miāfārgihin*⁶⁴ (green) and *Āmad[ia]*⁶⁵ (red). The city of *Arzan* (red, just below Ararat) is located near the end of this road. This province is indicated with the inverted and slanting legend *Bilād Armīniya* (Armenia). The large circular lake, half of which is shown on the map, is entitled *Daryāye Armīniya*, the Armenian Sea (Lake Van).

The large mountain in the centre of the map located in the province of Azerbaijan is *Kuhe Sabalān* (Mount Sabalān). On the road emanating from southeast of this mountain, from the right we see the cities of *Ardabīl* (green circle) on the crossroads, *Miāneh* (red semicircle), *Sarāb* (grey), *Eram* (orange), *Ahar* (grey) and *Marand* (green). Other cities of Azerbaijan shown on the road going southeast from Ardabil include *Meymand* (grey) and *Zanjān* (orange), with the cities of *Dājermān* (green), *Tabriz* (red), *Ashneh* (Oshnaviyeh - green) and *Dināwar* (yellow) shown away from the main road. The city of *Shahrazūr* (orange) is outside the map frame, on the border of *Aljazeera* (Mesopotamia).

Once again here we see the roads interconnecting the main cities of the region, making this a regional road map.

Al-Istakhrī’s *al-Mamālik va al-Masālik*. MS copy dated 1325 CE.
Iran Bastan Museum, Tehran. Ref. MS.3515, f. 75b.

⁶⁴ See footnote 59.

⁶⁵ See footnote 62.

Fig. 40 – This map of ‘*Armīniya va al-Rān va Ādharbeijān*’ is from al-Istakhrī’s manuscript *Kitāb ul-Masālik va al-Mamālik* كتاب المسالك و الممالك (*Book of Routes and Realms*), written c. 950. This is from a later copy of the book, dating from the nineteenth century. The map is numbered as 14 in the manuscript.

As other maps of the same region, this map too has north at the top. Towns and cities are represented by small squares, rivers are shown by twin parallel lines, interconnecting roads by single lines, lakes by circles and mountains by solid golden ovals. Place-names have many errors, most probably made by the inexperienced scribe, who has omitted the dots while copying the manuscript. In Arabic script the presence, absence or misplacing of a dot or a curly line can radically alter the pronunciation of the letter.

The double lines in the middle of the map represent the river *Arax*, flowing from left to right. Below this the map is divided into two parts. To the east is *Ādharbeijān* and to the west - *Armīniya*. From the top left of the map the river *Kura* flows downward but does not join the *Arax* river.

The country of *Arrān* (Caucasian Albania or Aghvanq in Armenian) is located at the top of the map. The section of the circle at the right edge of the map is the Caspian Sea, with the city of *Bāku* on its shore. Above *Bāku*, on the Caspian shore the road begins from *Bāb-ul-Abwāb* (Derbend) and slants downward through *al-Lajān*, *Shirwān* and *al-Shamākhīya* (Shamākha). Crossing the *Kura*, the road reaches *Bardahe*, a larger square, from where it continues through *Jenze*, *Shamkhur*, *Khūnān*, *Qal’ah* and Tiflis (here *Selis*). The town of *Bilgān* (now Baylakān or Paitakaran in Karabagh) is shown on the northern shore of the river *Arax*, while across the river stands the city of Warthan (here erroneously written as *Ruyan*, Vartanakert in Armenian), on the road leading to *Ardabīl* located on the crossroads, thence continuing to *Zanjān*. The region of *al-Alān* is shown in the west, bordering *Arran*. This is the Arabic name for the Osset people.⁶⁶

Azerbaijan is marked twice, almost vertically, and its towns include *Ardabīl*, *Zanjān*, *al-Margha* (Marāghah), *Alharh* (Ahar) and *Shahrazūr*. Mount Sabalān (here misrepresented as *Sanān*) is shown as a golden triangle. *Lake Urmīya* is shown as a large oval located on the border with Armenia. To its east lie the province of *Deilam* and *Jabāl* (Alborz) mountains. From *Ardabīl*, the road west passes through *Meymand*, *Marand* and reaches *Dabīl* (Dvin), above which the inscription reads “Armenia”.

Armenia is situated on the lower left of the map, with slanted *Armīniya*, written twice. Situated on the diagonal road are Armenia’s other cities, which from bottom left are *Bedlīs* (Bitlis), *Khlaḫā* (Akhlāt), *Arjesh*, *Barkārī* (Berkri), *Khui* (Khoi), *Salmās*, *Urmīya* and *Dājermān*. The road continues to *Ardabīl* in Azerbaijan, passing via *Marāgheh*, *Alhar* (Ahar) and *Miāneh*. The twin peaks of Mount Ararat are shown near the left edge of the page as two golden ovals, denoted by the Arabic name of the mountain, *al-Hārith*, though instead of mountain (*jabal*) it has been given the title of *jazeera* (island). To their west is the triangular shape of *Ghālikla* (Kāliklā or Karin– the old Armenian name for Erzerum).

Finally, at the western borders of Armenia lies the land of *Bilād ul Rūm* – Byzantium, while at its southern borders lies *al-Jazeera*, Mesopotamia.

Al-Istakhrī’s *al-Mamālik va al-Masālik*. Nineteenth century copy.
British Library, London. Ref. OIOC Or. 5305, f. 45r.
Size 20 x 30 cm.

⁶⁶ *The Encyclopaedia of Islam*, Vol. 1, 1960, pp 251/354

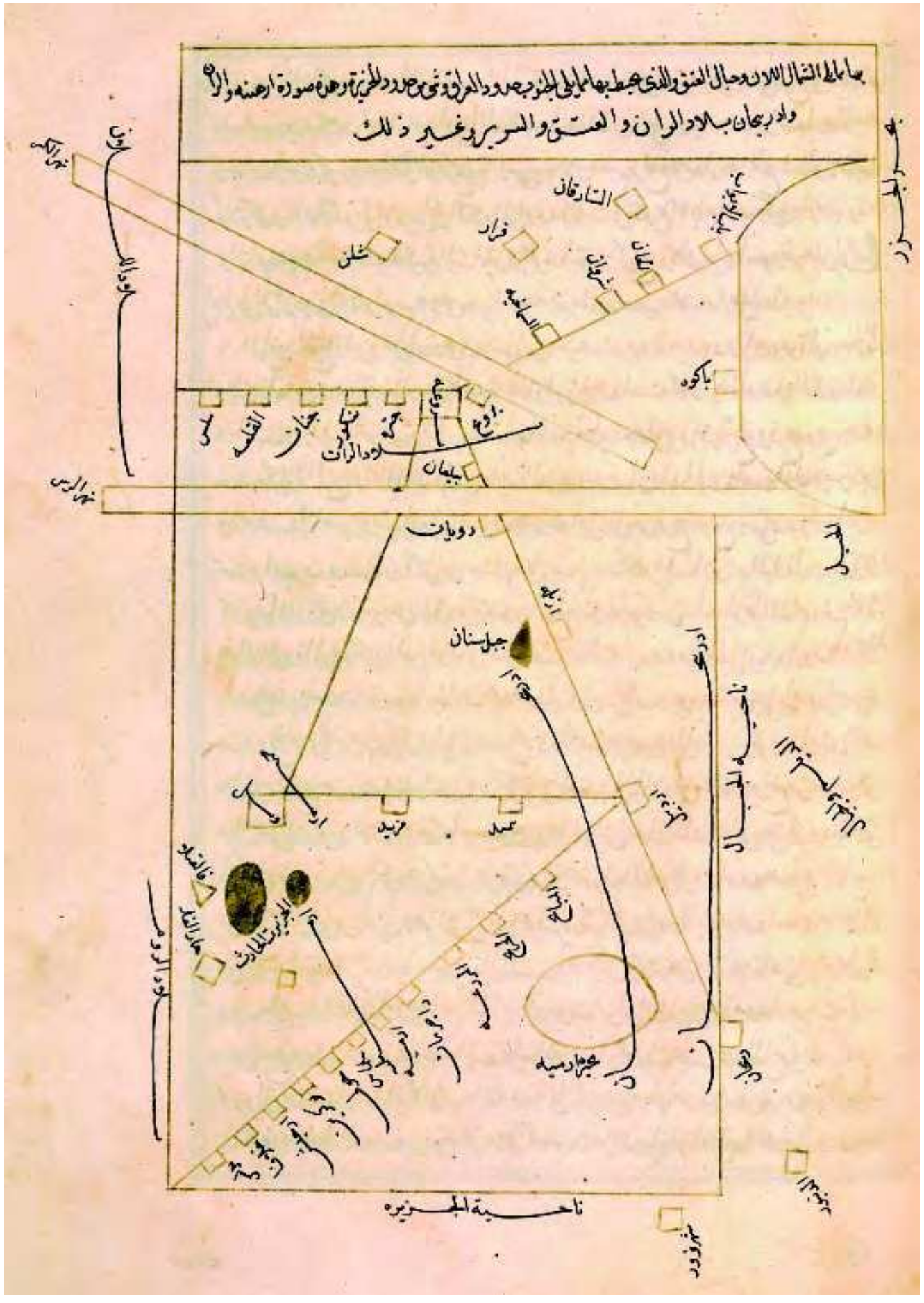


Fig. 40

Fig. 41 – This map of *Armīniya va al-Rān va Āzarbeijān* (Azerbaijan) by al-Istakhrī, is taken from a Persian translation of his original manuscript entitled *Kitāb ul-Masālik va al-Mamālik* كتاب المسالك والممالك (Book of Routes and Realms) – a geographical treatise on the inhabited world. This is one of the regional maps from a copy made in the middle of the fourteenth century.

The map is in essence the same as that depicted in the previous figures, with the exception of the different symbols used. Cities are represented by circles and mountains by pyramids. It is interesting to see the names of the towns appear with some variations in their spellings created by the incorrect dotting of the Arabic letters. The map is oriented with north at the top.

The hydrology of this map is more elaborate than in the other copies. The rivers *Kura* (in the north) and *Arax* are shown joining before they reach the Caspian (*Daryāye Khazar*). There is another river, *Sefid Rūd*, the White River with its two tributaries, passing through the *Deilam* (Alborz) mountains in Persia and in the province of *Gilān* before pouring into the Caspian, shown in part only. Both important lakes in the area, Lake Orumiyeh (the smaller lake, here named *Daryāye Shahi*) and Lake Van (here – *Daryāye Armīniya*) are shown near each other.

Along the western shores of the Caspian, inside Arrān we see *Bāku* (green), *Shabrān* (red) and *Derbend* (green), with *Shirwān* (yellow), *Shamākhi* (red) and *Shaki* (green) further inland. There is a string of cities along the southern bank of the *Kura*, starting with *Baradahe* (green) at the crossroads, then *Jenzeh* (Ganjah, red), *Shamkhur* (green), *Khūnān* (yellow), *Qal'ah* (Qandaman - green) and *Tiflis* (red) as the westernmost town.

South of the river *Arax*, at the western edge of the map we note the city of *Kāliklā* (the old Armenian city of Karin – now Erzerum, in red) and *Malāzgerd* (green). South of *Mount Sabalān* on the right, located on the crossroads we see the city of *Ardabīl* (yellow), with *Khunj* (green), *Sarā* (Sarab – red), *Marand* (green), *Ahar* (yellow) and *Eram* (green) along the road going west inside Azerbaijan, reaching the Armenian capital of *Dabīl* (Dvin – red). The red circle appearing below this road is described as the *old city of Nashwi*, now *Nakhijevān*. The road leading north from *Ardabīl* passes through the cities of *Barzand* (green) and *Warthān* (possibly Varzaqān or Vartanakert in Armenian - red). Other cities shown in Azerbaijan are *Tabriz* (green), *Ushneh* (Oshnaviyeh – red), *Zanjān* (green) and *Dinwar* (Dināwar – yellow).

The twin peaks of Ararat here are given their Armenian names – *Lesser mountain of Māsses* (Māsis) and *Great mountain of Māsses*, south-west of which lies the old Armenian city of *Arzan* (Arzn – green). The road leading southwest from *Ardabīl* is lined with the cities of *Miāneh* (green), *Marāghe* (red), *Dākharrghān* (green, today Azarshahr in Iran), *Urmiah* (yellow), *Salmās* (green), *Khoy* (red), *Berkī* (green), *Arjesh* (yellow), *Khilāt* (green), *Bitlīs* (red), *Miāfārghin*⁶⁷ (green) and *Āmad[jia]*⁶⁸ (yellow); below this road we see *Bilād Armīniya* (region of Armenia). The circular blue lake is the *Lake of the kings of Deilam* (Lake Shāhi or Oroumieh). The larger oval lake below it is named *Daryāye Armīniya*, Armenian Sea, which is in fact Lake Van.

The design of this map, as with all other Istakhrī maps, is very modern and can be considered as the inspiration behind the famous map of the London Underground with which it shares the same basic compositional approach (see Fig. 42). In al-Istakhrī's map the distances between the cities are not proportional to their true distances and cities are aligned more or less equidistant on straight lines depicting the roads. These lines are generally vertical, horizontal or diagonal, which make the map pleasing to the eye and easy to understand. The London Underground map of Fig. 42 was originally designed by Harry Beck, an electrical draftsman, in 1931. The likelihood that he would have been familiar with al-Istakhrī's maps is indeed remote, though he must have been thinking along the same lines as the medieval Master, since his design is highly akin to that of al-Istakhrī, drawn almost 1000 years earlier.

Al-Istakhrī *al-Mamālik va al-Masālik*. Copy dating from the fourteenth century.
British Library, London. OIOC, Ref. I.O. Islamic 1026, f. 49b.
Size 14 x 22 cm.

⁶⁷ See footnote 59.

⁶⁸ See footnote 62.

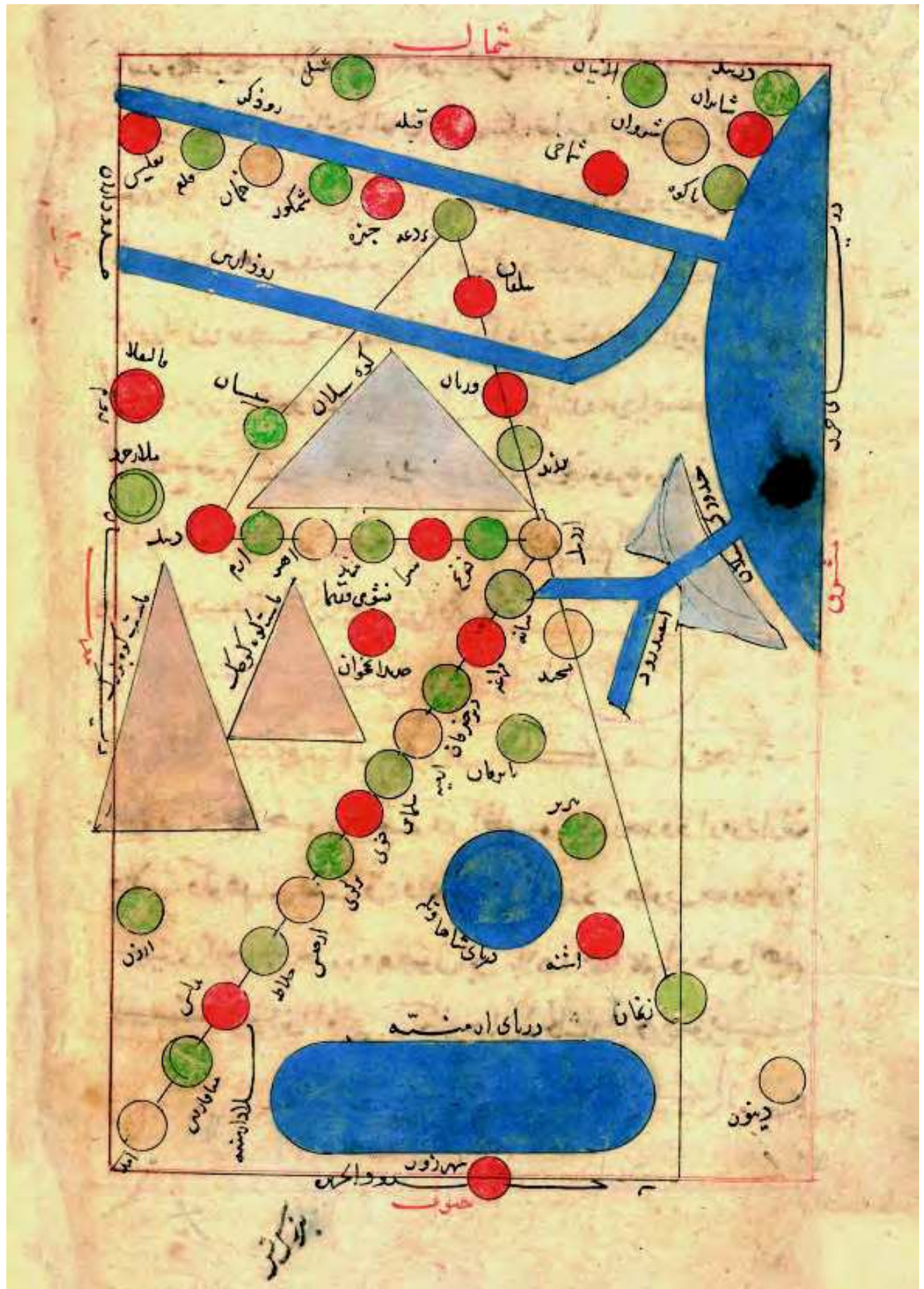


Fig. 41

Fig. 42 – This is a section of the map of The London Underground transport system. This map was originally conceived and drawn by Harry Beck (1903-1974) in 1931, who continued revising and updating it until his death. It took the London Underground management a long time to adopt it, but now its style and method of representation is copied by many cities all over the world, including Moscow and more recently Paris Metro maps. The lines on the map are horizontal, vertical or diagonal and most of the stations are placed equally spaced along these lines, not representing the actual distances between them. Thus the map is somewhat stylised, but this makes it easy to understand and use, whilst also being aesthetically pleasing. In fact, this map has become so popular that it is arguably the most widely used map in the world, since in addition to its intended use, it appears on Tee shirts, mugs, ashtrays and all sorts of tourist souvenirs sold in huge quantities in London.

For further comments on this map see the last paragraph of Fig. 41 map description.

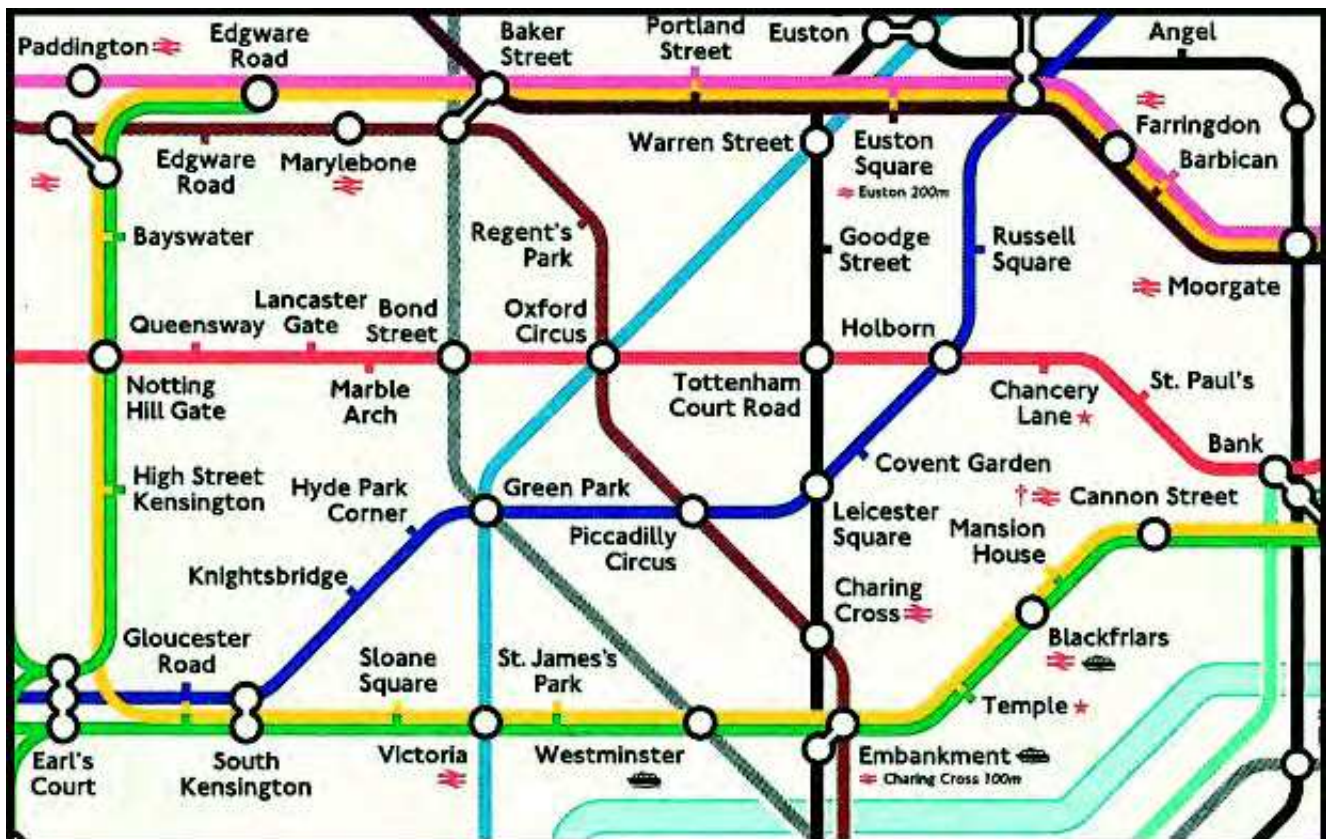


Fig. 42

Fig. 43 – This is the final Istakhrī map discussed in the present volume. This map of *Armīniya va Arrān va Ādharbeijān* (Azerbaijan) by al-Istakhrī, is taken from another Persian translation of his original manuscript entitled *Kitāb ul-Masālik va al-Mamālik* كتاب المسالك والممالك (Book of Routes and Realms), a geographical treatise on the inhabited world. This is one of the regional maps from a copy made in the middle of the thirteenth century from its tenth century original.

The map is generally the same as those of the previous figures, except that the symbols used are somewhat different. The copier has paid but scant attention to the roads, leaving many incomplete and omitting others altogether. Cities are represented by circles, important cities by double circles and the mountains by pyramid like shapes. The names of the cities in the map yet again reflect the errors made by the scribe in copying, thus presenting variations in their spellings.

In the territory of Arrān, along the western shores of the Caspian we see *Bāb-ul-Abwāb* (Derbend), *Shabrān* and *Bāku*, with *Shirwān* and *Shamākhīye* further inland. All these towns lie north of the Kura river. The westernmost town along the river Kura is *Tiflis* then come *Al-Qalah*, *Khūnān*, *Sahmkhūr*, *Jenzeh* (Ganje), *Bardahe* (Barda - on the crossroads) and *Baylaghān*, all lying in the area between the Kura and Arax rivers.

South of the river Arax, on the road from *Baradahe* to *Ardabīl* the towns of *Warthān* (possibly Varzaqān, or Vartanakert in Armenian) and *Barzand* are shown. The area of Azerbaijan is located south of the Arax River and is dominated by the large blue figure of *Mount Sabalān*. Emerging from *Ardabīl*, the road passes through, *Miāneh*, *Sarā* (Sarāb), *Eram*, *Khunj*, *Ahar*, *Marand*, and *Dabīl* (Dvin). The road south from *Ardabīl* passes through the cities of *Sahand*, *Zanjān* towards *Jāberghān* (or Dājermān, today Azarshahr in Iran) and *Tabriz*. The area of south Azerbaijan is dominated by the green *Buhaire Urmīya* (Lake Oroumieh) surrounded by the cities of *Jāberghān*, *Tabriz*, *Marāgha*, *Urmīya* and *Salmās*.

There is another river flowing into the Caspian from the region of Azerbaijan and Deylam (Gilan region of Persia), named *Sefīd Rūd*, White River, located within present-day Iran.

Armenia lies at the western extremity of the map where the cities of *Kāliklā* (the old Armenian city of Karin, now Erzerum) and *Malāzgerd* can be seen adjacent to the twin peaks of the Mount Ararat, here remaining unnamed. The mapmaker has neglected to include the road leading from Ardebil southwestward towards Armenia, and consequently the towns along the road are scattered around the two lakes of Oroumieh and Van. The Armenian towns in this area are scattered around *Buhaire Armīniya* (Armenian Lake or Lake Van). These are the cities of *Berkrī*, *Arjish*, *Akhlāt*, *Bitlīs*, *Miāfārgin*⁶⁹, *Arzan* and *Vān*. The large blue mountain southwest of Lake Van is possibly Mount Sipan, which is mentioned in the literature but does not have a legend. Given the omission of the interconnecting road, the city locations shown are more faithful to their true relative positions.

The region of Bilad-ul-Rum (Byzantium) begins from the western end of the map and the region of Aljazeera (Mesopotamia) has its borders at its southern tip.

Al-Istakhrī *al-Mamālik va al-Masālik*., Copy dated 1271.
Bodleian Library, Oxford. MS Oussley 373, f. 80a.
Size 24.5 x 33.5 cm.

Reprinted by the kind permission of the Keepers of Special Collections and Western Manuscripts and Oriental Collections of the Bodleian Library, University of Oxford.

⁶⁹ See footnote 59.

3 – AL-MUQADDASĪ

Another important tenth century Islamic geographer is Muhammad Ibn-Ahmad Shamsuddin al-Muqaddasī, محمد ابن احمد شمس الدين المقدسى (945 – c.1000 CE). His regional maps are simple and contain mainly single lines for roads, squares for cities, circles for lakes and double lines for rivers. His geographical manuscript entitled *Ahsan al Taghāsīm fi Ma'rifat al-Aqālim*, (The best divisions for the knowledge of the Provinces) contains descriptions of many provinces and peoples as well as 20 regional maps. His manuscript was originally in Arabic but has also been translated into his native Persian, a few of which are among the surviving copies.

Al-Muqaddasī was an avid traveller who traveled all over the Islamic world, taking notes of all that he saw and experienced, which were reflected in his abovementioned book. In addition to being a geographical treatise, the book is a compendium of assorted subjects of general interest found in various provinces. It contains descriptions of peoples, their attire, character and occupation. In many ways it also represents a historical and sociological oeuvre.

Fig. 44 – This is a map taken from tenth century Islamic geographer al-Muqaddasī's (945 - c.1000 CE) geographical manuscript entitled *Ahsan al Taghāsīm fi Ma'rifat al-Aqālim*, احسن التقاسيم فى معرفت الاقاليم (The best divisions for the knowledge of the Provinces) around 985 CE.

The map shown here is one which is dedicated to the area of Azerbaijan and Armenia and is entitled *Surath Armīniya va al-Rān va Ādharbeijān* (Azerbaijan). Although the map is oriented to show northeast at the top, in fact clear that orientation is to the north. On the map the cities are shown with red squares, rivers with double lines and roads with single red lines. This map has many similarities with Istakhrī's map shown in Fig. 40.

The double lines in the middle of the map represent the River Arax (*Nahr ul-Rass*), flowing from left to right. Kura is flowing from the northwest and joins Arax at the point when they both reach the Caspian. Below the river Arax the region is divided into two parts. To the east is *Ādharbeijān* and to the west lies *Armīniya*, Armenia.

Arrān or Albania is located north of the Arax and in the text related to this map al-Muqaddasī specifies cities of this province as follows:

Region of al-Rān [Arran] consists one third of the region. Its capital is Bardha'a and amongst its towns are Tiflis, al-Qal'ah, Khunān, Shamkhur, Janzah [Ganje], Bardij, al-Shamakhīya [Shamākhā], Shirwān, Bākuh, al-Shābarān, Bāb-ul-Abwāb [Derbend], al-Abkhān [Abkhaz], Qabala, Shakki, Malāzkird, Tabla.⁷⁰

Bardahe is in the centre of the province. The road leading southeast from *Bardahe* (the larger square above the centre of the map) passes through *Warthān* (possibly *Varzaqān*), *Ardebīl* and *Sarāb*, reaching an unnamed town at the crossroads and then continuing to *Zanjān*. The road heading northeast passes through *Shamakhīya* and up to *Bāb-ul-Abwāb* on the Caspian shores. The road heading West is lined with the cities of *Janza*, *Shamkhur*, *Khūnān*, *Qal'ah* and *Tiflis*.⁷¹ There is another road going southwest from *Bardahe* with *Dabīl* (Dvin) located at the bend of the road, continuing through *Marand*, *Ahar* and *Meymand* to the unnamed city at the crossroads. The legend *Armīniya* appears over the area stretching from *Marand* and *Dabīl*, near the two oval shapes of Mountains of *Hārith* and *Hūayrith* (Larger and Lesser Mount Ararats), below which is the city of *Q[K]āliklā* – the old Armenian name for Karin, now Erzurum.

Al-Muqaddasī then continues his description about Armenia:

⁷⁰ Al-Muqaddasi, *Ahsan al Taghāsīm fi Ma'rifat al-Aqālim*, translated by Prof. Basil Collins, Reading, 2001, pp.303-305.

⁷¹ Qal'a in Persian and Arabic means a fort, yet al-Muqaddasi says that this town, which is the nearest town to Tiflis, does not have a fort. Al-Muqaddasi, *The best divisions*, translated from Arabic by Prof. Collins, Reading, 2001, p. 305. This possibly is the city of Gardabani or Qandaman.

Armīniya is an important district. From here come curtains, very fine-fringed clothes and many special things. Its capital city is Dabīl [Dvin] and among its towns are Bitlīs, Khlāt, Arjesh, Berkrī, Khoy, Salmās, Urmīya, Dakharraqān, Marāgha, Ahar, Marand, [village of] Sanjān, Qāliqalā (Karin-Erzrum), Qandariya (probably Kāndāla), Qal'at-Yūnus (Khnus Kala) and Nūrīn (probably Nūrīk).⁷²

At the bottom of the map the main road leading from east to southwest passes through the cities of *Miāneh*, *Khunj*, *al-Marāghe*, *Dajermān* (Dakharraqān), *Urmīya*, *Salmās*, *Khoi*, *Berkrī*, *Arjesh* and *Khlāt*. The road terminates at the town of *Bitlīs*. The large circle south of the road is inscribed with a circular legend *Buhaire Armīniya* (Armenian Lake). This is the name given to Lake Van, though its geographical location is closer to that of Lake Oroumieh in Azerbaijan.

Regarding the Persian province of Azerbaijan al-Muqaddasī has the following to say:

Ādharbeijān is district whose capital and metropolis is Ardabīl..... Among the towns are Rasba, Tabriz, Jabirwān, Khunj, al-Miānij [Miāneh], al-Sarāt [Sarāb, with an incorrectly placed dot], Barwā, Warthān, Muqān, Meimand and Barzand.⁷³

Some of the cities of this province are shown east of the Lake Van, including *Jabirwān*, *Tabriz* and *Ushne* (Oshnaviyeh), with more cities further east (*Zanjan* and *Dinawar*) located in *Daylam* (Gilan) province.

At the western fringe of the map the two regions of *al-Alān* and *Bilād ul Rūm* are shown. *Al-Alān* is in the north, west of Arrān, the Arabic name for the old Osset people while *Bilād ul Rūm* is Byzantium, appearing west of Armenia.⁷⁴

Al-Muqaddasī, *Ahsan al Taghāsīm fi Ma'rifat al-Aqālim*, 985 CE.
Berlin Stadtsbibliothek, Germany. MS Ref. Sprenger 5 (Ar 6034), p. 179.
Size 19 x 27 cm.

⁷²Ibid, p.303.

⁷³ Ibid.

⁷⁴ *Encyclopaedia of Islam*, New Edition, Leiden/London, Vol. 1, 1960, pp. 251/354.

4 – BOOK OF CURIOSITIES

In June 2002 the Bodleian library bought an Arabic manuscript entitled *كتاب غرائب الفنون وملح العيون* *Kitābi qaraīb al-fonūn va Malh al-Ōyūn*, meaning “Book of the Wonders of Sciences and Visual Delights”. The author of this work, known by the diminutive title of “Book of Curiosities” is unknown, but from the information contained in the manuscript, its origin can be dated around 1050 CE. The purchased copy dates from around 1200.

The book is in many aspects based on the “Geography” of Ptolemy. Furthermore, Book One of the manuscript contains chapters on Astronomy, Constellations and Comets, while Book 2 is an extensive geographical text accompanied by maps of the world, regional maps as well as maps of the important river systems, seas and islands. Many of these maps are based on the Balkhī

school of geography, though some remain quite unique. A case in point is the circular map of the world in the manuscript, which clearly belongs to the Balkhī School, in contrast with the rectangular world map contained within the work, an unconventional representation, containing much more detail than former. Here the Mediterranean is devoid of any islands, though the book also contains a map dedicated to the Mediterranean, including 118 islands. Indeed, one of the largest islands, Sicily, is shown in greater detail on a separate map. All these are diversions from the Balkhī School. The manuscript contains altogether 17 maps of which two are world maps; of the remaining maps eight are of major river systems and lakes, and seven are regional maps and maps of islands. Two maps from this book are reproduced and discussed in the following sections.

Fig. 45/45a – The rectangular world map reproduced here is on two pages and is taken from the “Book of Curiosities” containing many interesting features. It is oriented with south at the top and shows the world in a rectangular shape, leading to a rather compressed appearance and the distortion of its topography and features. The seas are coloured green, rivers and lakes are blue, mountains are brown and red. An array of red dots representing cities are shown, some of which are left nameless. The copyist may have, in his haste, forgotten to write all the legends or, alternatively, the map is simply incomplete. On important trade routes the cities are shown located equidistant along straight or curved lines representing the main roads, reminiscent of al-Istakhri’s maps. Paradoxically the map also has a scale, though rendered useless by employing the method of overlooking actual distances and showing cities spaced equally along the straight or curved road lines. The Mediterranean Sea is shown beginning from the ocean in the west (right) and curving northwards, ending in the Black and North Seas at the foot of the map, thus effectively making Europe an island.

The large landmass on top is Africa, separated from Asia by the river Nile. The source of the latter is shown to be the mountains at the top centre of the map. From this source in the mountains there are two sets of rivers flowing into two primary collection ponds/lakes and from there to another lake, which can be considered as the main source of the Nile. The Nile has another tributary whose source is in the mountains located west of the abovementioned lakes. The Nile is shown splitting into three rivers, one flowing into the Mediterranean while the others flow into the Arabian and Red seas. Many cities are shown along the Mediterranean coasts of Africa, Asia and Europe.

In Europe at the lower right of the map, Spain, the top right bulging peninsula is shown disproportionately large, with many towns and two river systems. The peninsula to the left of Spain is Italy and the other two less prominent ones with unnamed cities represent Greece, below which to the left of the brown/red mass of mountains the legend reads *قسطنطينيه* *Qostantanieh* (Constantinople), situated between the sea and the brown/red mountains (effectively near the shore of the Black Sea).

By far the largest area in the left half of the map is occupied by Asia, above which we see the Indian Ocean. The larger peninsula protruding into the ocean is Arabia, with *Mecca* shown under a golden dome. The other peninsula represents Persia and India combined, divided by a red river line. The two elaborate river systems located to the north; between the two peninsulas are the Tigris and Euphrates, with their many tributaries and both shown flowing into the Persian Gulf. The circle below the river systems is the Caspian Sea, which has four rivers flowing into it. On the right are the Kura and Arax rivers, which join before reaching the Caspian, at the bottom is the Volga, and to the left (the larger river) is *Jehyhūn* (Oxus or Amū-Daryā), with its multiple sources in the mountains of Central Asia and *Seihūn* (Jaxartes or Sīr-Daryā).

The detail map of Fig. 45a shows the area of the Caspian Sea, with added numbers indicating important features of the map, shown in brackets. The Caspian sea (1) is the blue circle in the center. Extending downward from it is the river Volga (3). The Ural mountains appear to the latter’s left. The river at its immediate left is the Sīr-Daryā or Seyhūn (6), which has its source inside the walls built by Alexander the Great to keep the unruly Gog and Magog tribes away from mankind (22). Above Seyhūn (Jaxartes) we see the river Oxus (*Jeyhūn* - 7) with its tributaries, above which the

inscription reads *Bilad ul-Turk al-Gharbia* (Western Turks -13). The Persian province of *Khāwrazm* (12) is located between these two rivers.

To the right of the Volga, almost at the bottom of the map in larger lettering the legend states *بلاد ارمنييه* “Province of Armenia” (10), lying between the Caspian Sea (1) and the Black Seas (2) – represented by the green mass at the bottom of the map. Above Armenia (at its south) the brownish mass of the mountain is named *Armīniya* (14) seemingly a reference to either the Taurus range or Mount Ararat. Some cities are also shown along the banks of the rivers Kura (5) and Arax (4). These are laid out haphazardly and their placement is inaccurate. These cities include *Dabil* (15), *Urmīyeh* (16), *Marāghe*(17) in the north and *Amid* (18) and *Bitlis* (19) in the south.

At the west (bottom right) there are two cities named *Tabaristān* (20) and *Deylam* (21). Both seem to be out of place as the province of *Tabaristān* is actually situated south of the Caspian. The town may in fact be Trabizond and the error attributed to the copier. The province of *Deylam* appears significantly out of place, and should also have been located directly southwest of the Caspian Sea, rather than near the Black Sea. The province of Azerbaijan (11 – *Bilad Ādharbeijān*) is erroneously shown located between the river Volga and Ural mountains.

At the lower left of the map the large gates and the wall built by Alexander separate mankind from the kingdom of Gog and Magog (22). At the extreme east the last country shown is *Chin* (China).

A curious feature of this map is the connection of Africa to a large landmass at the south (top), whose extents are not specified or shown. At the eastern edge there is an island, surrounded by a mountain range.

The added numbers on map Fig. 45a indicate the following features on the map.

- | | | | |
|--------------------|----------------|--------------------------|----------------------|
| 1. The Caspian Sea | 7. Jeyhun | 13. Western Turks | 18. Amid |
| 2. The Black Sea | 8. Tigris | 14. Armenian [mountains] | 19. Bitlis |
| 3. Volga | 9. Euphrates | 15. Dvin | 20. Tabaristān |
| 4. Arax river | 10. Armenia | 16. Urmia | 21. Deylam |
| 5. Kura river | 11. Azerbaijan | 17. Maragha | 22. Alexander's wall |
| 6. Seyhun | 12. Khawrazm | | |

For map of the Caspian region see the next figure.

The Book of Curiosities, dated c. 1050. Copy dating from around 1200 CE.

Bodleian Library, Oxford. MS Arab. C90, ff. 23b-24a.

Size 32 x 49 cm.

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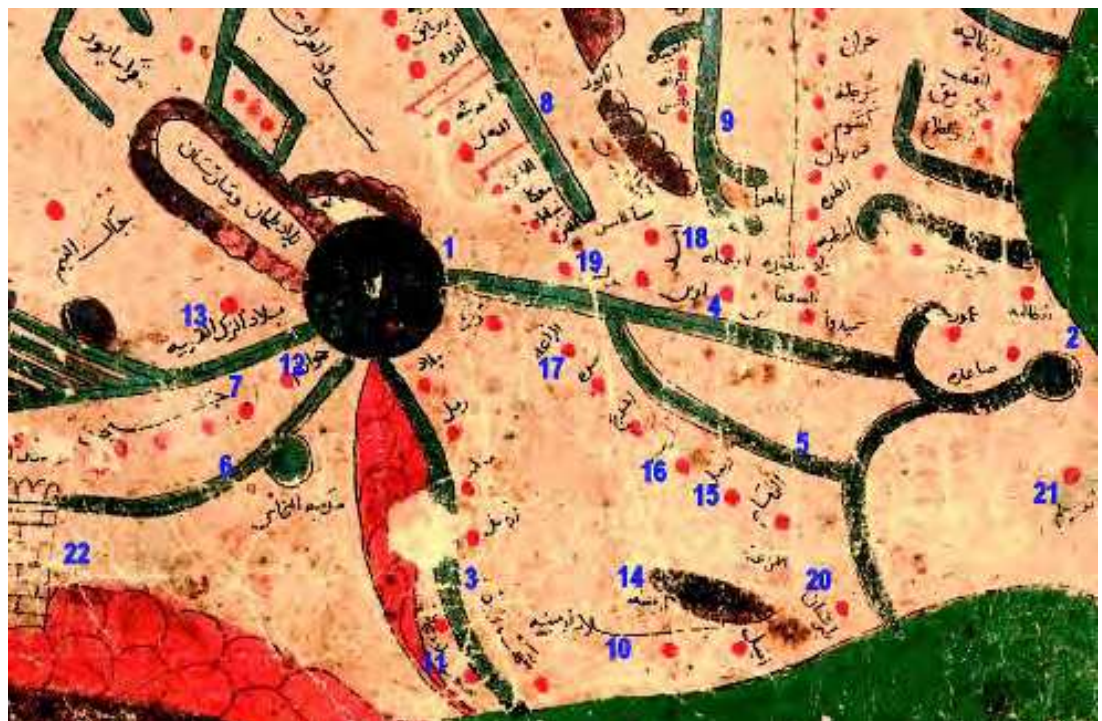


Fig. 45a



هذا هو الشكل الذي يكون عليه
 الثمرة في وقت الحصاد

القطر والوزن
 من الثمرة

القطر والوزن
 من الثمرة

هذا هو الشكل الذي يكون عليه
 الثمرة في وقت الحصاد

هذا هو الشكل الذي يكون عليه
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 الثمرة في وقت الحصاد

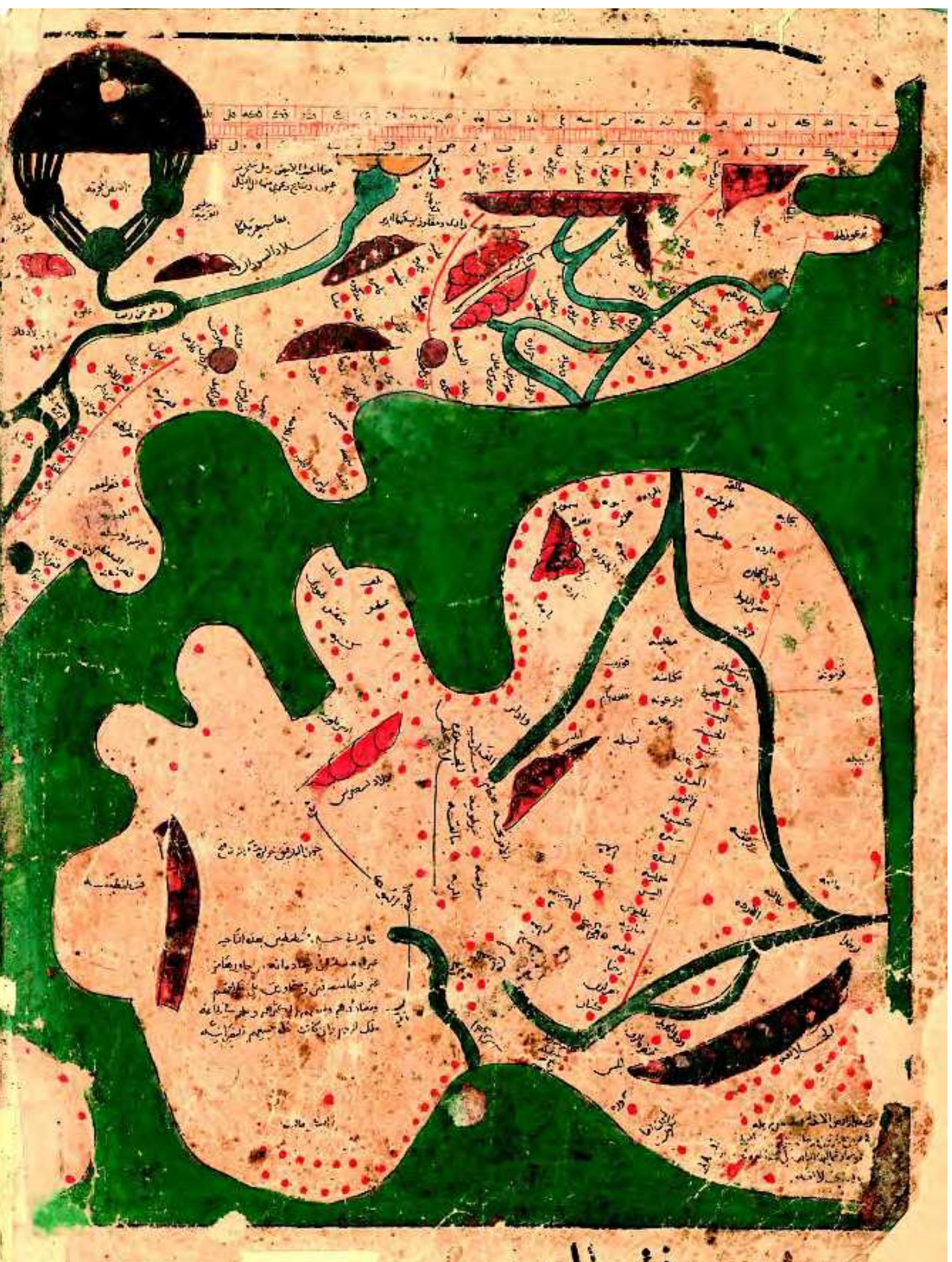


Fig. 45

Fig. 46 – This map of the region of the Caspian Sea is also from the Book of Curiosities (see Fig. 45 for details about the book).

This is a map similar those of the same region as they appear in the Balkhī School of Islamic cartography. The map is oriented with south at the top, such that the Alborz range of mountains located in the north of Persia near the southern shore of the Caspian, appears on the top. The Caspian is shown as a large green circle of water, with two sizeable islands named *Bāb-ul-Abwāb* and *Bāku*. Today these islands do not exist and the names relate to two cities located on the shores of the Caspian. There are three rivers flowing into the Caspian. The two shown at the top are Kura and Arax, which in fact are joined before they reach the Caspian, though are represented here as having two inlets as well as being joined. The third river is named as *Nahr ul-Rūs*, the Russian River. To the north of this river lies the city of *Bāb-ul-Abwāb* (Derbend). The city of *Bardahe*, known as the capital of Arrān is shown situated between the Kura and Arax rivers.

In the previous figure of the rectangular shaped World Map of the same manuscript, the Caspian Sea is also shown with much detail. There it has five rivers flowing in, with the rivers Kura and Arax joining before they flow into the sea, as well as the rivers Volga and Oxus. It is ironic, therefore, that the Caspian appears in much truer light in the world map, when compared to its depiction on the page dedicated to it.

The city of *Moqān* is shown above the river Arax, between the mountains of *Deylam* and the *Caspian Sea*. Above the mountain range at top right of the sheet the cartographer has written ارمنييه, Armenia, which is the area southwest of the province of Arrān.

The Book of Curiosities. Copy dating from c. 200.

Bodleian Library, Oxford. MS Arab. C90, f. 31b.

Size 32 x 24 cm.

Reprinted by the kind permission of the Keepers of Special Collections and Western Manuscripts and Oriental Collections of the Bodleian Library, University of Oxford.

5 – AL-IDRĪSĪ

One of the most important and widely traveled Arab geographers was Ibn-Abdullah Muhammad bin Abdullah bin Idrīs al-Sharīf al-Idrīsī, الإدريسي, known simply as al-Idrīsī. He was born in Ceuta, Morocco in 1099 and studied in Cordoba, the most important and advanced city of the time in Western Europe, where he had the opportunity to study the portolan and sea charts.⁷⁵ He traveled in Europe, Middle East and Central Asia, collecting geographical information and after his return was appointed geographer to King Roger II of Sicily, where he worked until his death in 1166. He is the author of the book *كتاب نزهة المشتاق في إختراق الأفاق*, *Nuzhāt al-Mushtāq fī Ikhtirāq al-Āfāq*, which translates into “The Book of Delights for those who Desire to Traverse the Earth” usually known as “The Book of Roger”. Here al-Idrīsī first presents a circular map of the World, as per the Islamic tradition, then divides the inhabited world into seven climate zones according to their latitude. Each zone is then represented with ten sectional maps with

their related descriptions. The book, which contains a world map, as well as seventy regional maps, was completed in 1154.

Eight copies of al-Idrīsī’s manuscript have survived mostly with maps. In preparing his book al-Idrīsī says that he has used various sources, such as Ptolemy’s *Geographia* and other existing Arab geographical manuscripts. His maps are meticulously drawn and embellished with bright colours. Each map is marked with its zone and division, but not all the maps match in scale and cut-off points, such that it is not always possible to align them and obtain the complete map as al-Idrīsī had envisaged. Al-Idrīsī is also known to have made a silver globe of the World for King Roger, which has sadly been lost. The German cartographer Konrad Miller (1844-1933) reconstructed a large al-Idrīsī world map from the 70 small regional maps that exist in “the Book of Roger”. This was published in 1928 as the world, as seen by al-Idrīsī.

Fig. 47/48 – These are two maps taken from the *Book of Roger* of Ibn Abdullah Muhammad bin Abdullah bin Idrīs al-Sharīf al-Idrīsī or Edrisi (1099–1166), who was one of the most important Arab cartographers of the twelfth century. Utilizing the sketches of the Greek sailors and contemporary lore, in 1154 he wrote *The Book of Roger*, accompanied by maps of the world, consisting of 70 small maps in Arabic, depicting various parts of the world together with a world map.

In this manuscript the world is divided into seven climatic zones and each zone in turn, is divided into ten sections from west to east. All sectional maps are oriented with south at the top.

Map of Fig. 47 entitled as *The Sixth section of the Fourth Climate* depicts the southern parts of the region of Armenia and Azerbaijan. In the lower part (north) the map covers Armenia and Persian Azerbaijan, with the blue sea in the lower left being a section of the Caspian Sea (which features prominently on the next map). At the lower part of this map the green coloured lake with two islands bears the legend *Buhaire Kābutān* (Blue Lake, the Armenian name for Lake Oroumieh), above which is the city of *Marāghe*. Next to it the legend reads *من أرمينية* *min-Armīniya* (of Armenia) and located at its left (east) are the city of *Tabriz* and the provinces of *Deylam* and *Ādharbejjān*.

The complex river system depicted on the southern part of the mountain ranges are the tributaries of the Tigris and Euphrates, whose sources are shown to be in the Taurus Mountains and Mount Ararat. Mount Ararat is represented by the twin mountains shown in the lower centre left of the map, coloured violet. The two rivers *Zāb ul-Kabir* and *Zāb ul-Saghir*, the two tributaries of the river Tigris arise from these mountains, which runs south (upwards) towards the Persian Gulf.

Map of Fig. 48 is entitled *The Sixth section of the Fifth Climate*. It depicts the lower region of the map shown in Fig. 47, where Armenia, Azerbaijan and Arrān share their borders. Armenia is shown twice, once at the top-centre and then at the right (west) of the map. Persian Azerbaijan is at the top left corner and Arrān (*Bāb ul-Abwāb*) is at the lower centre. The seas swell with frothing waves. Those shown are the Caspian - on the left (east) - and the Black Sea on the right, with Lake Van shown green in the top centre, having the cities of *Arjish* (red) and *Akhlāt* (yellow) on its shores. The name of *أرمينية* *Armīniya* (Armenia) appears in red next to lake Van and Arjesh, as well as written vertically just below the brown mountain range at the right corner of the map. *Ādharbejjān* appears in the top left of the map, adjacent to the southwestern part of the Caspian, next to *Deylam* (Gilan region of Iran) and south of the

⁷⁵ During the period Cordoba had some 70 libraries and was considered to be the centre of culture and study in Europe.

river Arax, the green river at the top of the map. At lower left section of the map the territory north of Bab-ul-Abwab and Arrān is named *Bilad ul-Khazar*.

The river system shown on the map represents the rivers of Arax and Kura, which flow from the right to the left and join before reaching the Caspian Sea. The river at the south is the Arax and the one in the north is the Kura. Compare these two maps with the reconstruction of al-Idrīsī's map by Konrad Miller (1928) shown in the next map of Fig. 49.

Al-Idrīsī *Nuzhāt al-Mushtāq fī Ikhtirāq al-Āfāq*. Copy dated 1456 CE.

Bodleian Library, Oxford. MS Pococke 375, ff. 211b-212a and ff. 266b-267a .

Size approximately 33.5 x 21.5 cm.

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Fig. 49 – This is part of the al-Idrīsī map of the world, as reconstructed by the German cartographer Konrad Miller in 1927 and published in Stuttgart in 1928, better known as “The large Idrīsī Map”. This is a part of the reconstructed map that matches the areas shown on the two previous original map sections. It shows the Middle East, Caucasian Mountains and Asia Minor with place names written in Arabic using the Latin script. The segment shown is approximately one-sixth part of the complete map as prepared by Miller.

The map is oriented with south at the top. Here the Black Sea is on the right and the Caspian Sea – *khazar* – can be seen on the left of the map. The Mediterranean is also included (top right).

Armenia is shown in three places, Greater Armenia, called *a'āli armīnīa*, situated near Lake Van, here called by the old Armenian name of *argis* (Arjesh). Lesser Armenia, called *asāfel armīnīa* is shown to the north-west of Lake Van. In the middle of the two lakes there is yet another Armenia, *bakiet armīnīya*, meaning “the rest of Armenia”. Other recognizable town names in this region are *bidlīs*, *kālikalā* (Karin, today's Erzurum), *halāt* (Akhlāt), *Dabīl* (Dvin), *nasua* (Nakhijevān), *arzen*, *āmid*, *mīafārkin*, *hūi* (Khoy) and *salmās*, of which the first eight are towns in Armenia.

The large lake (green) nearest the Caspian is entitled *buhaire kanūdān*, which is the corruption of the Armenian name Kapūtān, given to the lake of Oroumieh or Urmiya. The distortion is due to the incorrect positioning of a single dot in the Arabic script, which has been placed above the line, instead of below it. Judging from the position of the cities of *Bidlīs*, *Halāt* and *Ārgiš*, the smaller to the right of Lake Urmiya should represent Lake Van.

Even in this map of 1154, *bilād alrān* (Albania) is shown located north of the river Arax and *bilād āderbaigān* (Āzarbeijān) to its south. In the territory of Arrān the cities shown include *Bāb-ul-Abwāb*, *Shamkun[r]*, *al-Shamakhia*, *Bilkān*, *Uzakān*, *Tiflīs* and others. All three countries of Arrān, Azerbaijan and Armenia are closely linked. The two elaborate and interwoven river systems shown are the Tigris and Euphrates.

Miller, “*Weltkarte des Idrisi vom Jahr 1154*”, 1928 Stuttgart.

British Library, London. Ref. Maps 856.(11) and Private Collection.

Size 195 x 92 cm.

6 – AL-QAZWĪNĪ

Zakariyā Ibn Muhammad al-Kazwīnī or al-Qazwīnī (1203–1283) ذكريا ابن محمد الفزويني was an important Arab geographer of Persian origin, whose manuscript of the geographical dictionary *Athār-al Bilād wa Akhbār al Ibād* – آثار البلاد و اخبار العباد (Monuments of Places and History of God's Bondsmen) includes a rough map of the world, showing the climatic zones and drawn according to the Islamic traditions, oriented with south at the top. Many of al-Qazwīnī's manuscript copies also contain a map of his native city of Qazwīn, one of the ancient cities of Iran.

Al-Qazwīnī was also an encyclopaedist, who composed a treatise on cosmography, *Kitāb 'ajāib al-Makhlugāt wa gharā'ib al-Mawjudāt* (Marvels of Things Created and the Miracles of Things Existing), which also includes a map of the Islamic world. This map is of a more decorative type and is also oriented with south at the top. It must however be mentioned that the maps in different manuscripts of the same work do differ from each other significantly.

Fig. 50 – This is one of al-Qazwīnī's maps from the *Monuments of Places*. It is oriented with south at the top and is very basic, omitting even the oceans and landmasses. The map is typical Islamic, with the inhabited world divided into seven climatic zones, from south to north. The inhabited world is located between the Equator and the North Polar Zone. The first zone is near the equator and the region near the North Pole above the seventh zone is the *Northern* uninhabited zone.

The seven parallel climatic zone lines dominate the map, with the gulfs represented by wedge-like shapes, cutting into the climatic zones. These wedges are named (from the left) the Ahdar Gulf, the Persian Gulf and the Gulf of the Berbers. The circle in the middle is the *Caspian Sea* and the two slanted parallel lines to its right are inscribed *Bahr-ul Maghrib wa al-Rūm wa al-Shām*, the "Sea of the West, Rome and the Sham" - the Mediterranean Sea.

The countries shown on the map are predominantly Islamic ones, but some non-Islamic countries such as *Rūm* (Byzantium), *Bulgaria*, *Saqāliba* (the Slavs) and *Rūs* (Russia) also feature. Armenia also appears in the neighbourhood of the Caspian Sea and Russia.

The legends inside the zones from one to seven (top to bottom) from the right include:

- Zone 1 *Khalij Berber* (Gulf of Berbers), *Yemen*, *Ommān*, *Khalij Fārs* (Persian Gulf), *Khalij Akhdar* (the Green gulf, possibly Gulf of Bengal), *al-Chin*.
- Zone 2 *Tanjeh* (Tangiers), *Bilād Berber*, *Lesser Egypt*, *Hijaz*, *al-Sir*.
- Zone 3 *Andalus*, *Bilād Afriqiye*, *Iskandarieh* (Alexandria), *Beyt ul-Muqaddas* (Jerusalem), *Shirāz*, *Kirmān*, *Mokrān*, *Sind*, *Hind*, *Kandahār*, *Māchin*.
- Zone 4 *Bahr el-Rūm wa al-Shām* (Mediterranean), *Diarbekir*, *Iraq*, *Djebel*, *Khurassān*, *Shaja*, *Badakhshān*, *Atachin*, *Tibbet*.
- Zone 5 *Afranje* (France), *Qostantanieh* (Constantinople), *Bahri Khazar* (Caspian), *Rūs*, *Armīn[iya]*, *Khāwrazm*, *Bein ul-Nahreīn* (Oxiana), *Sadd-Taran* (?), *al-Turk* (the Turks).
- Zone 6 *Bilād Almān* (Germany), *Saqāliba*⁷⁶, *Rūs*, *Bahri Khāwrazm* (Aral Sea), *Qipchāgh* (Polovtsians), *Bāmiān*, *Kaimali*.
- Zone 7 *Maghrib*, *Bātin ul-Rūm* (Byzantium interior), *Bulghār*, *Bahri Warang* (Baltic or Northern Sea), *Gog and Magog*.⁷⁷

Outside the climatic zones, in the southern hemisphere (upper part) there a few provinces listed, including *Sauad al-Maghrib* (Black races of the West), *Habash* (Ethiopia), *Zangebār* (Zanzibar) *Nūbia and Al-Zinj* (East Africa).⁷⁸ The vertical legend in the centre of the map indicates the Equator.

Al-Qazwīnī, *Athār-al Bilād wa Akhbār al Ibād*, 1329 CE.
British Library, London. MS. Or. MS 3623, f. 5a (water damaged).
Size 23 x 35 cm.

⁷⁶ See footnote 58.

⁷⁷ According to Abulfeda and Qazwīnī, Warang is the northern gulf, which is cold and inhospitable.

⁷⁸ Could also refer to the city of Zinj in Bahrain.

قال ابو الريحان الخوارزمي اذا فرضنا ان دائرة معدل النهار تقطع كره الارض بصفتين
يسمى احد الصفتين جنوبا والاخر شمالا واذا فرضنا دائرة نصف على قطبي معدل النهار وقطع
الارض صار كره الارض اربعة ارباع ربع جنوبا وربع شمالا فالربع الشمالي المكبر
يسمى ربعا مسكونا والربع المسكون مشتمل على البحار والبحار والانهار والبحال والمفاوز والبلدان
والقرى على ان ياتي منها تحت خطك الشمال قطعة غير مسكونة من احواط البرد وتراكم الثلوج
وهذا الربع المسكون يتقوسها سبعة اقسام كل قسم يسمى اقليما لانه باط مقروش من المشرق الى
المغرب طولها ومن الجنوب الى الشمال عرضها وانما مختلفه الطول والعرض فاطولها واعرضها
الاقليم الاول فانه طولها من المشرق الى المغرب نحو من ثلث الف فرسخ وعرضها من الجنوب الى
الشمال نحو من مائة وخمس فرسخا وارضها طولها عرضها الاقليم السابع فانه طولها من المشرق الى
المغرب نحو من الف وخمس مائة فرسخ وارضها من الجنوب الى الشمال نحو من خمس فرسخا و
اما سائر الاقاليم فتختلف طولها وعرضها وهذه صورة كره الارض بانها ليست



Fig. 50

Fig. 51 – This silver and gold painted Islamic map of the world is from another copy of the Persian translation of al-Qazwīnī’s (1203–83) thirteenth century manuscript *Athār-al Bilād wa Akhbār al Ibād* – آثار البلاد و اخبار العباد – *(Monuments of Places and History of God’s Bondsmen)* whose estimated copy date is 1580. This is another version of the much simpler map shown on the previous pages (Fig. 50). The present map is highly ornate, detailed and covered with silver and gold leaf, gold for the mountains and silver for the seas.

Like many other maps of al-Qazwīnī, this too shows the seven climatic zones and indeed the emphasis of the map is on the climatic observations and related detailed descriptions. The map has south at the top. Outside the northernmost zone, below the seven habitable zones the inscription reads:

There is not enough sun and due to the cold there are no animals here.

To the south of the seven inhabited zones the inscriptions read

There is no information about this region and Due to the extreme heat there are no animals in this region.

This is reminiscent of Macrobius’s central “Torrid” or “Perusta” (parched) zone.

The north polar area bears the inscription

In this region from Aries to Libra is one day and from Libra to Aries is one night.

The inscription in the South Pole reads

From the beginning of Libra to the end of Pisces is one day and from Aries to the end of Virgo – one night.

The above indicate the extent of Islamic cartographers’ knowledge regarding the solar day cycles at extreme latitudes, though there is the possibility that these legends may have been added to the thirteenth century original map by latter-date copiers.

Most of the map is occupied by Africa and the unknown southern lands, while Europe and Asia occupy most of the lower half of the map. The seven inscriptions in the left specify the zones and give their dimensions.

The sea to the left of the map (east) is the Pacific Ocean and the one in the top middle is the *Indian Ocean* with the Arabian Sea. The peninsula surrounded by six islands is *China*, and to its right is the *Indian Sea* (Gulf of Bengal). The other gulf further to the right, with three rivers pouring in, is the Persian Gulf. Next is Arabia shown as a circular bulge protruding into the Indian Ocean/Arabian Sea, with *Bahr-i-Kulzūm* (the Red Sea) at its west (right). The River Nile is shown with eight tributaries, which join together to flow into another lake and thence to the Mediterranean, which is the unevenly shaped sea connected at the right to the surrounding ocean and named *Bahr-i-Misr* (Sea of Egypt). The Black Sea branches from the middle of the Mediterranean and extends northwards to join the ocean at the north of the landmass. The rivers *Dejle* (Tigris) and *Forat* (Euphrates) are shown connecting the Mediterranean Sea to the Persian Gulf. Parts of the Caspian Sea are obscured by the close binding in the centrefold of the map. The rivers Arax and Kura are also depicted joining and flowing into the Caspian, the former being connected to the River Tigris and the latter to the Black Sea. Between the Tigris and Arax rivers the inscription *Armīniya* (Armenia) can faintly be made out. Armenia is flanked by the cities of *Tabriz* and *Erzrum*.

The small rectangular lake at the left (east) of the fold is the Sea of Aral, with the rivers *Jeihūn* (Oxus, or Amū-Daryā) and *Seihūn* (Jaxartes, or Sīr-Daryā), rising from Central Asia and flowing into it.

Al-Qazwīnī, *Monuments of Places*, copy dated 1580.

Walters Art Gallery, Baltimore, USA. Ref. W 593, ff. 52v–53r.

Diameter approximately 30.5 cm.



Fig. 51



Fig. 52a

7 – IBN-SAĪD

The Andalusian poet, anthologist and geographer Abu'l-Hasan Ali Ibn-Saïd al-Maghribī was born in Granada in 1213. Starting from 1241 he traveled to Egypt, where he was already established as a poet, where he wrote some of his other works of poetry and geography. He returned to Tunis in 1276 where he died in 1286. Ibn-Saïd

was renowned for his poems and anthologies on the geography of *Maghrib* (The West), which are mostly lost.⁷⁹ One of his obscure manuscripts on history and geography has survived, kept in the Bodleian Library of Oxford, which includes some maps and diagrams reproduced and discussed here.

Fig. 52/52a – The origin of this Islamic world map is the middle of the thirteenth century, but the reproduced copy is from a manuscript dated 977 AH/1570 CE entitled *Kitāb ul mabdein wa Tārikh* (Book of the Beginnings and History). The manuscript is attributed to Ibn-Saïd al-Maghribī, ابن سعيد المغربي (1213-1286) or al-Āwī al-Fārsī. The origin of the map, however, goes back to the Islamic cartography of the twelfth or thirteenth centuries. On the margin of the map the mapmaker mentions that he has used information from the book of “Ptolemy the Greek” and two other sources.

Unusually for an Islamic map, this one is oriented with east at the top, more in line with the Christian traditions of the time. This is a later version of the Balkhi School of Islamic cartography and is a detailed and faithful representation of the eastern hemisphere, possibly due to the source material used. Here the depiction of the seas and landmasses are near-accurate reflection of their relative positions. The mountains are coloured brown, seas are dark green, and rivers - light green. The seven climatic zones are also indicated with curved red lines, Armenia is shown falling mainly in the Fifth and partly in the Fourth Climate Zones, which is similar to its location shown on Idrisi’s maps of Fig. 47 and 48.

In this map the shape of the eastern hemisphere is the most accurate in medieval Islamic cartography. Africa is shown as a continent surrounded by the oceans and the western (Atlantic) ocean is connected to the eastern (Pacific) oceans by the southern passage. In South Asia the shapes of the Arabian Peninsula, Indian Sub-continent, Indo-China, Malaya and China can be made out. Siberia is marked as the land of *Gog and Magog*, who are separated from the rest of the world by the wall built by Alexander the Great, shown here together with the vignette of a gate. The seas in Southeast Asia are filled with many islands. In Europe the shapes of the Iberian Peninsula, France and North Europe can be recognized. In the North Sea there are seven large islands while the Mediterranean has five. All the continents are filled with the legends of important provinces and cities.

Constantinople is shown on the narrow strait that connects the Mediterranean to the Black Sea, which would be the representation of the Straits of Bosphorus or Dardanelles. To the east of the Black Sea is the Caspian, which is the rectangular lake at the centre of the map, with two large (imaginary?) islands. Below the Caspian (to its west) lies a large mountain mass, possibly the Caucasian Mountains, with a second one further west (below), which probably is the depiction of the Armenian Highlands or the Taurus range.

The countries, provinces, cities and seas depicted in the area neighbouring Caucasus and Armenia are shown on the detail map of Fig. 52a, bearing the following legends:

1. *Armīniya* (Armenia) situated between the two mountain masses, south of the Caucasian Mountains.
2. *Bāb-ul-Abwāb* - Derbend, near the Caucasian Mountains.
3. *Shirwān* - also near the Caucasian Mountains.
4. *Deylam* - between the 2 and 3 above.
5. *Hamadān* - west of the Armenian Highlands.
6. *Baghdād* - south of the Armenian Highlands.
7. *Jazeera* (Mesopotamia) - southwest of the Armenian Highlands.
8. *Khorāsān* - south east of Armenia and south of the Caspian.
9. *Bahr ul-Khazar* - The Caspian Sea.
10. *Bahr ul-Rūm* - The Black Sea.
11. *Bahr ul-Fārs* - The Persian Gulf.
12. Caucasus Mountains and Mount Ararat
13. Armenian Highlands.
14. The river Tigris, rising from the Armenian Highlands.
15. The river Euphrates, rising from the south of Mount Ararat.

Ibn-Saïd, *Kitāb ul mabdein wa Tārikh*. Copy dated 1570.
Bodleian Library, Oxford. MS Laud. Or. 317, ff. 9v–10.
Diameter approximately 28 cm.

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⁷⁹ *Encyclopaedia of Islam*, Vol. 3, 1971, p.926.

وحصل مجلسه في خلق الارض قال
 الله تعالى الذي جعل لكم الارض فراشا
 والسماء بناء الالية ونظيرها كثير
 في القران اعلم ان الكلام
 في خلق الارض على تسعة اوجوه
 الباء الاول في خلق الارض
 وبعينتها روات الروايات
 بالفاء مختلفه ومعاني
 متعقبة وان الله تعالى
 لما اراد ان يخلق الارض
 والسموات خلق
 جوهره خضرا
صخره *pasta*



Fig. 52

وهذه الدائرة تصفة الارض والبحر
 المحيكة والجار الخارجة منه والاسم
 السبعة الفصد وجمعا ما ولاهها
 الكندي والسرخسي وما وجدوها
 في كتابه بكليموس ابو ناي

ويقال في الارض

هي تصفة الارض الاولى

تسمى الجبلية الثانية

تسمى بسيفيا الثالثة

تسمى تقيلا الرابعة

تسمى بجليا الخامسة

تسمى بياقنة السادسة

تسمى امسكة السابعة

تسمى قسرات

واستيايها ثمانية

الفران سبعة ابط

عراشها ويساكنها

ومها اذان وكفت

الصراع وكجات



جزائر الخالدات

Fig. 53 – The same book by Ibn-Saïd contains another circular drawing, which is a zonal map of the world. This shows the circular earth, once again oriented with east at the top, and the whole of the inhabited world is divided into the seven climatic zones, as accepted by the Islamic tradition. There are no lands and seas or any topographical features on the map, and the seven climatic zones of the northern temperate zones fill the surface of the circular earth.

The zones are numbered from right to left and run vertically, which is to say from east to west. Each zone band is filled with the names of the important towns or provinces located within them. Names of some of the important provinces mentioned inside the zones from south to north (right to left) are:

- Zone one – Aden, Ommān, Sawān, Aswān, Nubia, Damasq, al-Zinj, etc.
- Zone two – Mecca, Aswān, Bahrain, Egypt, Hijaz, Antakia etc.
- Zone three – Alexandria, Rammala, Quds (Jerusalem), Kirmān, Kābul, Basra, Istakhr, Tarsus, Askelon, Kulzūm, Berber, Baghdād etc.
- Zone four – Mosul, Harrān, Aljazira (Mesopotamia), Nishābour, Isfahān, Antakia, Dināwar, Hamadān, Africa, Tangiers etc.
- Zone five – Andalusia, Tabaristān, Marv, Ādharbeijān, Samarkand, al-Khazar, Al-Turk, Rūm etc.
- Zone six – Saqāliba, Bardahe, Armīniya, Khāwrazm, Gorgān, Deylam, etc.
- Zone seven – Constantinople, Khazar etc.

It is noteworthy that the zone containing Armenia is bordered in the south by the zone containing Azerbaijan and in the north by the zone containing Khazar, one of Albania’s neighbouring nations.

Ibn-Saïd, *Kitāb ul mabdein wa Tārikh*. Original thirteenth century, copy dated 1570. Bodleian Library, Oxford. MS Laud. Or. 317, f 26. Diameter 17 cm.

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Fig. 53

⁸⁰ *Encyclopaedia of Islam*, Vol. 3, 1971, p.122.

8 – AL-MUSTAWFĪ

Hamd Allāh al-Mustawfi al-Qazwīnī (c. 1281-1339) حمد الله مستوفى, known as al-Mustawfī was another Qazwīn born important Persian historian and geographer of the late medieval period. In 1330 he began writing his *Zafar-Nāma*, an epic poem of 75,000 verses on Islamic history and conquests. His other works are *Tārikhe guzida*, a concise history book and *Nuzhat ul-Gūlūb* (Hearts' bliss), which is a cosmographical and geographical tome.⁸⁰ In its geographical chapters the latter describes various countries and provinces and their important cities, as well as alphabetically listing important seas, lakes, rivers, islands and mountains of the world. Many mountains, rivers, lakes and cities of Armenia, Albania and Azerbaijan are described in this work. In the chapter on mountains *Mount Masses* (Ararat) and *Mount Sipan* are mentioned as being in the territory of Armenia and *Mount Sabalan* in Azerbaijan.

Amongst the chapters dealing with countries neighbouring Iran, one concerns Armenia. The author begins thus:

There are two Armenias, Armenia Major and Armenia Minor. Armenia Minor was not under the Persian rule. Armenia Major was under the rule of the Persian king and paid annual taxes to Persia equal to three Toumans per moustache, [meaning per adult male] annually.

Then there is a list of the major towns and their important aspects, such as climate and products as well as the amount of the tax that each city paid to the king.⁸¹

In the seventeenth century the first Ottoman geographer Kātib Çelebi (1609-1657) in his most important work, *Jahān Nūma* (World Mirror) dedicated a chapter to Armenia, where his text begins in a similar vein to that of al-Mustawfī. It is quite likely that Kātib Çelebi had copied most of the information available about Armenia as described by al-Mustawfī. To the author's knowledge, this is not reflected in any of the literature relating to the work of Kātib Çelebi.⁸²

It seems that al-Mustawfī's book has been an important work of reference in the medieval Arab and Persian world, since it has been copied and recopied for almost 500 years. Kātib Çelebi's use of the text is a typical example of how texts were copied from older sources without any sort of acknowledgement or credit.

Nuzhat ul Gūlūb includes two maps. One is the world map (Fig. 54) and the other a regional map of the area between the Mediterranean Sea and Central Asia (Fig. 55), where the bulk of the Islamic world was situated. Both of these maps are from seventeenth century manuscript copies of the book.

⁸¹ Al-Mustawfi, *Nuzhat ul Gūlūb*, British Library, MS Add. 7709, f. 190a/b.

⁸² Kātib Çelebi, *Jehān Nūmā*, (Mirror of the World). c. 1657. Ottoman manuscript, London, The British Library, OIOC MS ref. Or.1038 (in Turkish). Chapter 41 and Galichian R. *Historic Maps of Armenia*, London, 2004, pp. 142-143.

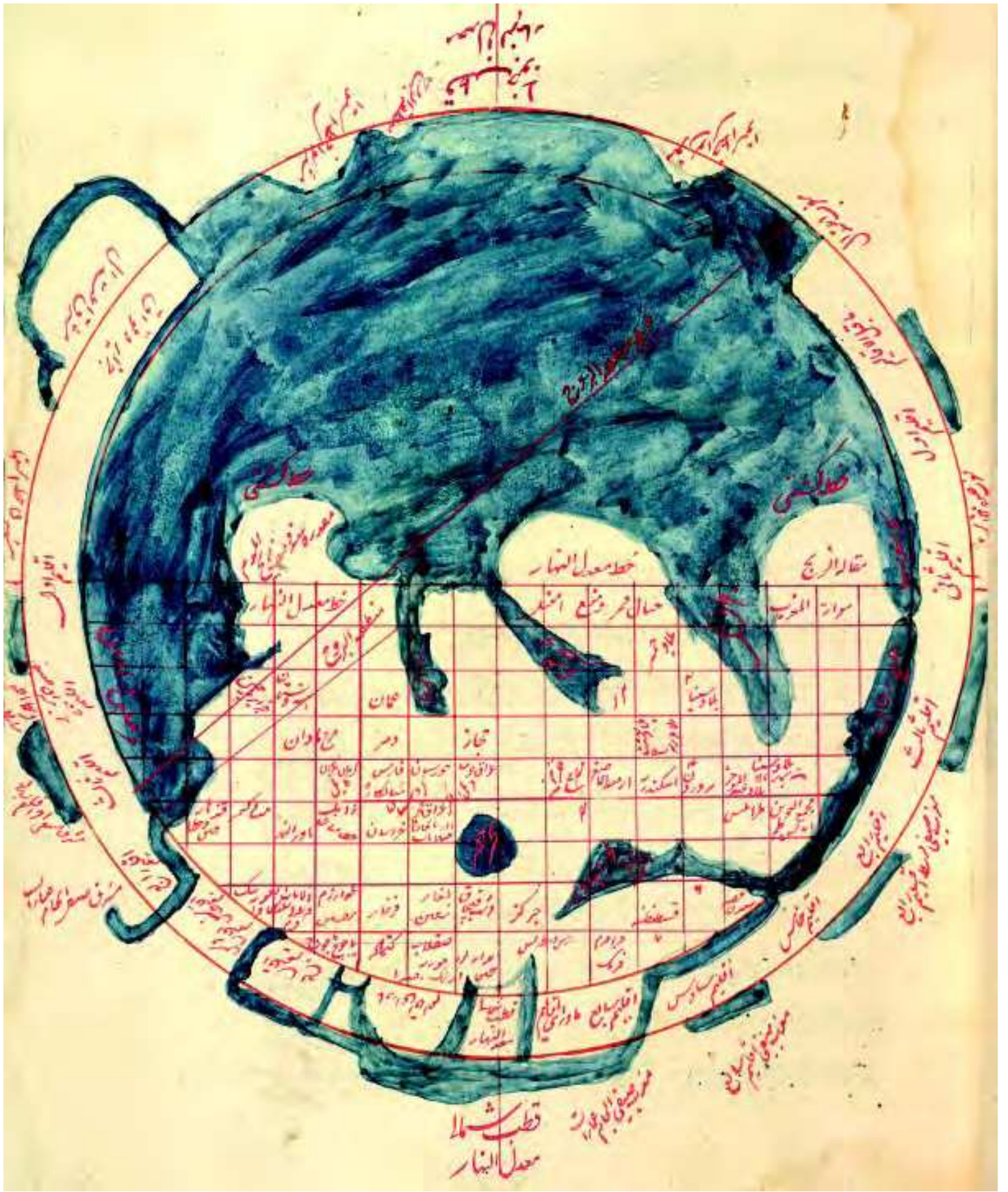


Fig. 54

Fig. 54 – This is a circular map of the world from al-Mustawfī's book *Nuzhat ul Gūlūb* kept in the British Library. The original manuscript dates from around 1339/40 CE but the copy was made only in the seventeenth century. The map is not typical of the Balkhī School of Islamic world maps, but has more in common with al-Birūnī's map in its depiction of land-sea relationship. His attempts to incorporate some sort of grid lines is another major difference.

The horizontal divisions correspond to the climatic zones, dividing the inhabited provinces into seven climates (*eghlim* - in Farsi) plus two additional zones below and above them, which are not inhabited. To these horizontal divisions some vertical lines have been added, supposedly mirroring the function of the meridians, and spaced at ten degree intervals, but which continue running straight, extending out of the circular earth forming a grid which covers the inhabited world. It must be said that with the exception of Ptolemaic maps, the convergence of Meridians in the poles appeared on medieval maps in a much later date. In the texts the names of the provinces are listed according to their appearance in the climatic zones. The numbers of the zones are also shown in the inside rim of the map, starting with Before the Climate zones, the width of which extends almost from the south of the Equator to the South Pole. Listed downward from the equator are zones one through seven and then finally we come to the The zone beyond and the North Pole at the centre bottom centre of the page. Each division of the grid represents ten degrees of latitude and longitude.

The map is oriented with south at the top, but in the manuscript it has been drawn upside down, resulting in most of the legends also appearing inverted (rotated by 180 degrees). The reproduction shows the map in the corrected orientation, with south at the top.

The blue mass is the Indian and Pacific oceans connected to the *Sea of Maghreb* (West), depicted positioned west of Africa, with the inhabited world starting north of the Equator, from what here is called *the Temperate Line*. The two westernmost (right) landmasses protruding into the ocean represent Africa. The first landmass from the west is northwest Africa and the bay in-between the two is named *Bahri farang* a name usually given to the Mediterranean Sea, though here is the distorted representation of the Gulf of Guinea in West Africa. The next landmass to that is North Africa followed by *Bahr-i Kulzūm*. This is the Arabic name given to the Red Sea, based on the name of the ancient port city of Kulzūm on the Red Sea.⁸³ To its left (east) is the Arabian Peninsula and *Bahr-i Ommān*. The easternmost landmass is that of *China* and *India*. The sea extending into the land from the northwest (bottom right) is *Bahr-i Rūm va Farang*, the Mediterranean, with *Constantinople* shown at its northern shore. The blue blob in the middle of the landmass is the Caspian Sea.

Armīniya Asghar (Armenia Minor) is shown inside one of the grids of the Fourth Climatic Zone along with some other provinces. Armenia Major, although appearing very prominently in the texts, is not shown in this world map. However, it appears in the other map of the same manuscript, a regional map of the Middle East and Central Asia (see the following figure).

Here many other provinces and cities are mentioned such as *Iraq Arabi* and *Ādharbejjān*, both southeast of the *Caspian*; *Khorassān*, *Fārs* and *Kirmān* in Iran at the southern end of the *Caspian*; *Bulgaria*, *Rūs[sia]*, *Qipchaghs*, *Cherkez* (Circassians) and *Frank* located north and northwest of the *Caspian*, where the Caucasus mountains should be. The peoples of *Gog and Magog* are shown at the north-eastern edge of the inhabited world, in the Sixth Climatic Zone. No other Caucasian countries are mentioned.

Al- Mustawfī, *Nuzhat ul Gūlūb*. Seventeenth century copy of original dated 1339/40 CE.
British Library, London. MS ADD-23544, f. 234v.
Diameter 15.5 cm.

⁸³ *Encyclopaedia of Islam*, Vol. V, 1980, pp 367-369.

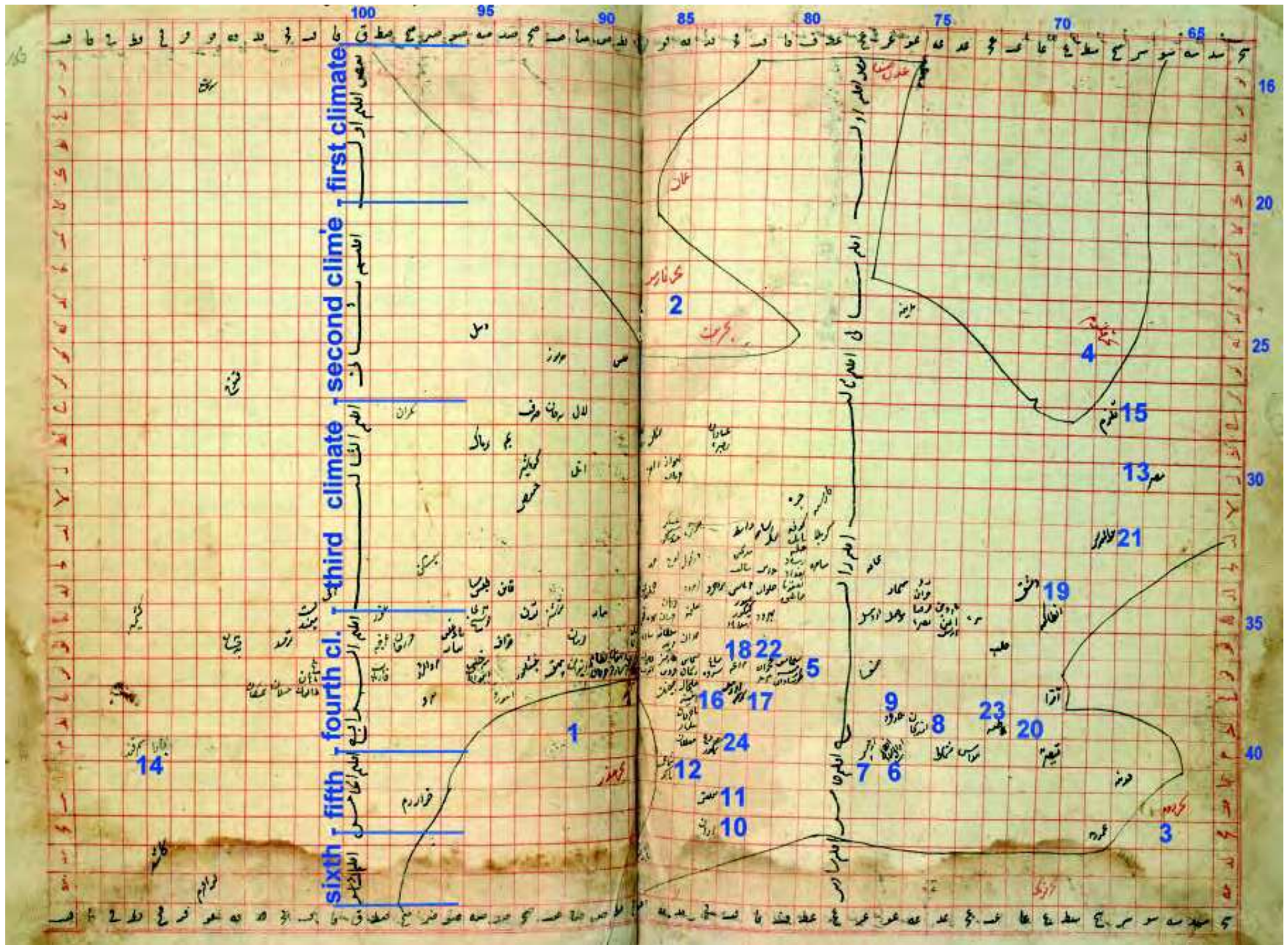


Fig. 55

Fig. 55 – This is a regional map of the area between the five seas; the Caspian, the Red, the Black, the Mediterranean and the Sea of Oman or the Persian Gulf. It too is taken from al-Mustawfī's natural history and geography manuscript *Nuzhat ul Gūlūb*, نزهت القلوب. A fine grid of about one degree covers the whole map. The shorelines of the sea are shown in thin black lines and the vertical writings are the numbers of the climate zones, *Eghlims*. (See the English translations in blue).

The map is oriented with south at the top. Various towns and provinces are indicated inside the grid rectangles, each representing about two degrees of latitude and one degree of longitude. The map covers mainly the Islamic world, as the area chosen is mainly that of Iran and Mesopotamia, extending southwards down to Egypt and eastwards up to *Samarkand* and *Bukhārā* in Central Asia. The map is an enlargement of the central part of the world map, as seen in the previous figure. The general descriptions of that map also apply to this. The Red Sea port city of *Kulzūm* also features here.

The superimposed blue numbers on the map are translations of the toponyms, provided to help the reader to note the important legends on the map, predominantly those of the following towns and provinces:

1. *Khazar* – the Caspian Sea
2. *Bahr-i Ummān* – The Sea of Oman (Persian Gulf)
3. *Bahr-el Rūm* – The Black and the Mediterranean Seas
4. *Bahr-i Kulzūm* – The Red Sea
5. *Salmās**, *Armīniya*
6. *Akhāt ** – Khlāt
7. *Arjīs*h*
8. *Erzinjān**
9. *Malāzgerd**
10. *Arrān* – Caucasian Albania, in Armenian, Aghvanq, north of *Tiflis*.
11. *Tiflis*** – (Tbilisi)
12. *Bāku*** & *Shamākhī*** – by the Caspian Sea
13. *Misr* – Egypt
14. *Bukhārā* and *Samarkand* – in Central Asia, Oxiana.
15. *Kulzūm* – an ancient port city in the Red Sea
16. *Orumiyeh*
17. *Tabriz* – *Ardebīl*
18. *Marāghe*
19. *Damasq* and *Antakia*
20. *Kaiseria*
21. *Beit ul Muqaddas* – Jerusalem
22. *Nahkijevān** & *Marand*
23. *Malatīa**
24. *Bardahe*** and *Shamkur***

* These cities are shown as being in the territory of Armenia.

** These towns are shown as being in the territory of Arrān.

Al- Mustawfī, *Nuzhat ul Gūlūb*. Copy dated 1634, from original of 1339/40 CE.
British Library, London. MS ADD-23543, ff. 162v-163.
Size 33.5 x 24 cm.

CHAPTER FOUR

LATE MEDIEVAL MAPS (Christian maps of eleventh to fourteenth centuries)

Some very important world maps have reached us from the period between the eleventh to the fourteenth centuries. A few of these are included in various manuscripts dealing with collections of different subjects and others are large-scale world maps, which were originally produced as separate works. A selection representing the most important of these is discussed in this chapter. It will be seen that some of the smaller maps of this period have in many respects much in common with their larger cousins as far as their presentation and context is concerned.

The manuscripts that contain the small maps are generally collections of works on various subjects, such as Easter computus tables, natural history, geography, history and topics of religious nature. The maps themselves are varied in their degrees of sophistication and information contained. There are simple ones that are still drawn in line with the T-O maps of Orosius and Sallust, bearing slightly more geographical information and toponyms than their predecessors, while others are much more detailed and contain additional information taken from biblical and mythological sources.

In the late medieval period more information was added to the simple T-O maps, including representations

of many myths and legends, which had reached the mapmakers from the ancient Greek writers and other classical sources. These contain information regarding fantastic animals and part human creatures such as the dog-headed men (cinocephales), headless men (blemmyes) whose eyes and mouths were on their chests, single legged men (sciapods) who ran hopping very fast and rested under the shadow of their single large foot, large eared men (panotians) who used their ears as body wraps, cannibals and many more. The maps also included depictions of historical and biblical stories such as the Deluge and Noah's Ark, the parting of the Red Sea, the wild and unruly races of Gog and Magog contained behind a wall built by Alexander the Great, Earthly Paradise and the four rivers of Paradise, as well as the land of the warrior women of Amazone and other myths.⁸⁴

The elaborate type of world maps of this period (1000-1350) show many of the above legends, places and provinces as well as including historical and religious information, which varies according to their size. Many of these maps have religious connotations and most have Jerusalem at their centre, with the Red Sea coloured red, crossed with the path that Moses took, as the sea parted to let his people of Israel through. The most important maps of the period have the following number of legends.

<u>Name of map</u>	<u>Fig.</u>	<u>Number of legends</u>
Map of Albi	14	50
Thorney Abbey map	25	60
Matthew Paris world map	-	81
Bestiary map	68	95
Psalter map	75	145
Cottonian map	57	146
Lambert of St. Omer	59	180
Bar Hebraeus	76	190
Sawley World Map	58	229
Higden World Map (large)	79	346
Jerome map	11	407
Hereford <i>mappa mundi</i>	77	1,021
Ebstorf <i>mappa mundi</i>	70	1,224

⁸⁴ See the *Old Testament*, Ezekiel 38 and 39.

It must be noted that none of these maps are entirely original works and all have some earlier map as their source, elaborated by the mapmaker according to the information available to him and required by the users of the map. It is interesting to note that from the twelve maps mentioned in the table above nine have English connections. Although all may not have been made in England, they however do have strong cartographic links with it.

During the late medieval period, some large scale world maps were also produced, but owing to their dimensions, remained very vulnerable, with few surviving. The four twelfth and thirteenth century large mappae mundi that have reached us are the following: "World map of the Duchy of Cornwall", the "Vercelli", "Ebstorf" and "Hereford", all named after the locations where they are kept today. It appears that all four of these maps are English in their origin and inspiration.⁸⁵ The "Duchy of Cornwall" was discovered in England, the Vercelli is said to have been brought to Italy from England, the Ebstorf map too is said to be the work of an Englishman, and the Hereford Map also has its origin in England.

The composition of these maps, the shape of the Mediterranean Sea shown therein, and the additional information and drawings depicted have very much in common. They are all based on the Orosius's model of

the T-O type maps, and all have additional information taken from Pliny, Jerome, Augustine, Isidore and others. In Umberto Eco's book entitled *Baudolino*, about life in the twelfth century, the hero dreams of faraway lands and Mount Ararat from whose peak you can glimpse at the remains of Noah's Ark, about Albania, where men are whiter than elsewhere, about Amazon warrior women and about the Nile, one of the four rivers springing from Earthly Paradise, which flows through the deserts of India, goes underground and emerges in Egypt, which it traverses and pours into the sea. All these, as well as much more are usually shown in one form or another in the medieval maps, especially in the larger maps discussed in this chapter.

A fragment of a world map was discovered during the late twentieth century in the archives of the Duchy of Cornwall. This is a piece measuring 61x53 cm, which is a fragment of the circular world map originally measuring some 157 cm in diameter. The surviving fragment shows part of Africa and in presentation and content is very similar to the Vercelli and Hereford maps. As this fragment does not include the region of Caucasus, it has been excluded from this study.

Most of the important world maps mentioned above, as well as some other maps of the late medieval period are depicted and discussed in this chapter.

1 – THE COTTONIAN MAP

Fig. 56/56a - This medieval map is known as the Anglo-Saxon or the 'Cottonian Map', after its original owner, Sir Robert Cotton, whose collection was one of the three to form the basis of the antique books collection of the British Museum in 1753. The map is small and made in England about 1050 CE. It is included in a manuscript of Anglo-Saxon *Periegesis*. The manuscript contains the translation of the geographical poem by the third century geographer Dionysius Periegetes, describing the habitable world as well as a computus, a religious chronology and even a depiction of a Macrobian Zonal map, oriented with the north at the top. The map was compiled in England but may well have its roots in the Roman period, having direct connections with Marcus Vispanius Agrippa (born c. 63 BCE) and information available on the latter's maps compiled at the end of the first century BCE by order of the Caesar.

Although it was produced at the time when strict Christian topography was the rule and is vaguely in the form of a T-O map, it does not have a full circular shape. Its shape seems to have been chosen to fit the page on which it is drawn, and is therefore rectangular and somewhat distorted. Britain and Spain have been pushed together, the Arabian Peninsula (*Arabia deserta*) is protruding directly east and the source of the Nile is also dislodged eastward.

Contrary to the majority of its contemporaries, the map does not have a major religious orientation, instead shows cities, provinces, countries, rivers and mountains; a truly geographical map. The general layout tends to be a compromise between T-O and Ptolemaic shapes, which has more freedom than Christian topography would normally allow. In the east there is no Paradise shown, instead the large island at the top is *Taprobane* (Ceylon) and directly below it we see *India* and *Media*. The vignette of the city of *Hierusalem* is located at the eastern shore of the Mediterranean. The largest city depicted on the map is Babilonia.

The coastlines of Europe are shown more accurately than on any other contemporary map. The accuracy of the shape of the British Isles and the coastlines of northern France for the period are unusually faithful to reality. As mentioned above, the cartographic information included on this map has apparently been taken from the Roman

⁸⁵ Harvey and Woodward, "The history of cartography", Vol. 1, 1987.



Fig. 56

and even Greek, pre-Christian geographers. The map is oriented with east at the top. It is sometimes claimed that the association of Armenia with Mount Ararat and Noah's Ark appeared on maps only after the First Crusade. In this map, which was made in 1050 CE, some 45 years before the First Crusade, Mount Ararat and Noah's Ark are shown, firmly placed in the territory of Armenia.

In the map mountains are shown green; red is used for the Persian Gulf and the Red Sea, as well as the Nile and some other rivers. At the top left, behind the Lion we see the *Taurus Montes*, where the Tigris and Euphrates have their sources (See detail map of Fig. 56a). Below this range is the legend *Montes Armenie*, which describes the twin peaks of Mount Ararat, here shown sideways, with the three-storey *Arca Noe* (Noah's Ark) perched on top. Below the Ark the legend *Armenia* can be seen, although somewhat masked by the print-through. These shapes are reminiscent of Orosian maps (see Fig. 13). Further down we see a second range of mountains also named *Taurus*, the continuation of the remaining section of the same range, continued with a break. Armenia's neighbouring provinces are *Hyberia* and *Mesopotamia*. To the left of the Ark, the intricately shaped bay with two islands is the Caspian Sea. Nearby is the region of containment of the tribes of *Gog and Magog*, situated near the northern ocean.

Inside the area between the Black and Caspian Seas are two legends. One reads *Mons Albanorum* (Albanian Mountains, possibly the Caucasus) and the other is *regio Colchorum*, the region of Colchis, located northeast of the Black Sea. *Hiberia* (Iberia) is shown south of *Montes Armenie*, between the two rivers rising from the Armenian plateau and *Taurus*, in the territory of Mesopotamia.

This is one of the few medieval maps that shows divisions of provinces and countries, indicated by straight lines, though the general T-O shape is still preserved by the dominant body of the Mediterranean, here filled with a multitude of islands, complemented by the *Nilus* in Africa and *Tanaïs* (Don) at the centre left of the map, with its source in the green mountain. The Nile is shown in two sections. Flowing eastward from Upper Egypt, it turns west and somehow disappears underground to emerge further down and continue its flow towards *Alexandria* and the Mediterranean Sea.

Toponyms related to Armenia and its neighbours, indicated by red numbers on the detail map of Fig. 56a are the following:

1. *Montes Armenie* – Mountains of Armenia
2. *Arca Noe* – Noah's Ark
3. *Armenia* – Obscured by the print-through
4. River Euphrates
5. River Tigris
6. *Mesopotamia*
7. *Hiberia* – Iberia
8. *Mons Albanorum* – Albanian Mountains, possible the Caucasian Mountains
9. *Mare Caspium* – Caspian Sea
10. *Gog & Magog*
11. *Regio Colchorum* – region of Colchis or Abkhazia, where the Golden Fleece was kept.
12. *Anthiocia*
13. Taurus Mountains

Periegesis, ca. 1050 CE.
British Library, London.
Cotton MS Tiberius BV, f. 56v.
Size 17.6 x 21.2 cm.



Fig.56a

Septemtrionis nris: quia occidentem appellam diuidatur in partes tres. Circuropa. una pars dicitur
 ab hinc Asia. Libia. tertia. Cuius longitudo e ab oriente occidentem milia passus [LXX] Latitudo
 ab alto ribus. Anopis: regionis meridiane usq. ad partem septentrionale. septuaginta
 milia passus. [LXX] Equale Europa finit. A frons maximo que est in hispania et
 maximam usq. ad hostia fluminis tanais. Et hinc mox orientem. hoc est passus milia
 passus. [LXX] ~~et hinc~~
 Ut in Asia finit. ab Europa finit. eodem flumine. et ab hinc ostia fluminis usq. ad ap
 pellat. hinc ad orientem. ponit. latitudinem finit. et hinc tota milia passus [LXX] ~~et hinc~~
 Quia ergo uniuersa spacia reddimus. nunc scietur. tamur. ad singulas
 regiones. ut finit. ut se. et quibus continentur spaciis.
 Hispania quia quida appellat. hiberna. parte. incircutu milia. ~~et hinc~~
 passus [LXX] ~~et hinc~~
 Gallie usq. comata. et hinc. tota in unum incircutu patet
 milia passus [LXX] ~~et hinc~~
 Italia tota usq. flumen. et hinc. plura tota. patet milia
 passus [LXX] ~~et hinc~~
 Reta. et undel. ea usq. incircutu in unum patet
 milia passus. ~~et hinc~~
 Germania usq. et hinc. galles. et hinc. in unum pa
 tet incircutu milia passus [LXX] ~~et hinc~~
 Sarmata. omnis. a flumine. usq. itala. p. que. hinc. in unum
 flum. et hinc. tota. pontic. maris. et ex parte. caspi. con
 septentrionalis. incircutu patet milia passus
 [LXX] ~~et hinc~~
 Turcia. et hinc. tota. in unum patet milia passus
 [LXX] ~~et hinc~~
 Moesia. p. que. usq. tota. patet milia passus. ~~et hinc~~
 Macedonia. omnis. idem. incircutu patet milia passus
 [LXX] ~~et hinc~~
 Thracia. p. que. incircutu patet milia passus [LXX]
~~et hinc~~
 Pannonia. p. que. incircutu patet milia passus [LXX]
 decem. LXXVII
 Peloponessus. tota. in qua. achia. e. et hinc. Asia. et
 hinc. et hinc. et hinc. et hinc. incircutu. p. que. in unum
 patet milia passus. ~~et hinc~~

EUROPE ADSCRIBUM

BU M TUR

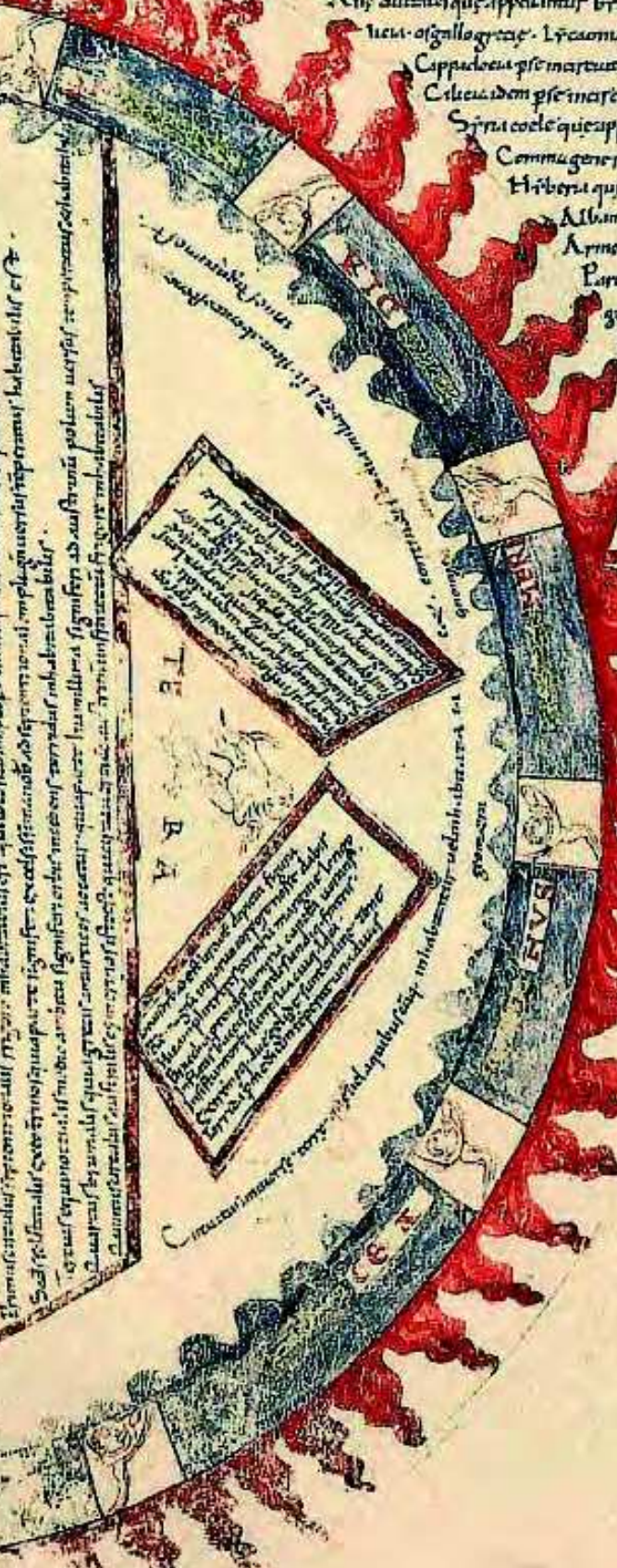


Fig. 57

DESCRIPCIONES

Asia autem que appellatur bithunia . moesia . acolis . lydia . phrygia . ionia . caria . paphlagonia . gallogræcia . lyconia . cappadocia . muno ut proxiima patet milia passus $\overline{\text{LXXV}}$ $\overline{\text{DCCCLXXII}}$
 Cappadocia p[ro]ximiora parte milia passus $\overline{\text{LXXV}}$ $\overline{\text{DCCCLXXII}}$
 Cilicia idem p[ro]ximiora parte milia passus $\overline{\text{LXXV}}$ $\overline{\text{DCCCLXXII}}$
 Syria coele que appellatur cu[m] phoenice incircu[m] p[ro]ximiora parte milia passus $\overline{\text{LXXV}}$ $\overline{\text{DCCCLXXII}}$
 Commagene regio incircu[m] p[ro]ximiora parte milia passus $\overline{\text{LXXV}}$ $\overline{\text{DCCCLXXII}}$
 Hiberna que in medio monte caucaso iacet incircu[m] p[ro]ximiora parte milia passus $\overline{\text{LXXV}}$ $\overline{\text{DCCCLXXII}}$
 Albania incircu[m] p[ro]ximiora parte milia passus $\overline{\text{LXXV}}$ $\overline{\text{DCCCLXXII}}$
 Armenia maior incircu[m] p[ro]ximiora parte milia passus $\overline{\text{LXXV}}$ $\overline{\text{DCCCLXXII}}$
 Parthia . scythia . chrysaia . ethiopia . arabia . india . sarmatia . getica . abactiana . adabe . sarmatia . cossæ . gentes que con-
 fines sunt incircu[m] p[ro]ximiora parte milia passus $\overline{\text{LXXV}}$ $\overline{\text{DCCCLXXII}}$
 Scythia magna parte incircu[m] p[ro]ximiora parte milia passus $\overline{\text{LXXV}}$ $\overline{\text{DCCCLXXII}}$
 India incircu[m] p[ro]ximiora parte milia passus $\overline{\text{LXXV}}$ $\overline{\text{DCCCLXXII}}$
 Polosia . amichosia . et pro pontica regio a iethio sagi-
 ans qui tenent a idem p[ro]ximiora parte milia passus $\overline{\text{LXXV}}$ $\overline{\text{DCCCLXXII}}$
 Sarmatia incircu[m] p[ro]ximiora parte milia passus $\overline{\text{LXXV}}$ $\overline{\text{DCCCLXXII}}$
 Mesopotamia que in iugum euzracen flumina
 iacet incircu[m] p[ro]ximiora parte milia passus $\overline{\text{LXXV}}$ $\overline{\text{DCCCLXXII}}$
 Arabia a eudemon que appellatur incircu[m] p[ro]ximiora parte
 milia passus $\overline{\text{LXXV}}$ $\overline{\text{DCCCLXXII}}$
 Aegyptus inferior et superior incircu[m] p[ro]ximiora parte
 milia passus $\overline{\text{LXXV}}$ $\overline{\text{DCCCLXXII}}$
HÆ OMNES REGIONES ASIAE ADSCRIBUNTUR.
 Libia pars fluminis a euzracen flumina
 incircu[m] p[ro]ximiora parte milia passus $\overline{\text{LXXV}}$ $\overline{\text{DCCCLXXII}}$
 Cyrenica regio a euzracen flumina incircu[m] p[ro]ximiora parte
 milia passus $\overline{\text{LXXV}}$ $\overline{\text{DCCCLXXII}}$
 Ethiopia provincia cu[m] persona incircu[m] p[ro]ximiora parte
 milia passus $\overline{\text{LXXV}}$ $\overline{\text{DCCCLXXII}}$
 Ethiopia omnis que sub meridiano polo est in
 circulo parte milia passus $\overline{\text{LXXV}}$ $\overline{\text{DCCCLXXII}}$

HÆ OMNES REGIONES LYBIAE ADSCRIBUNTUR.



Vertical text on the left margin, likely a commentary or additional geographical notes. The text is written in a medieval script and is partially obscured by the large 'L' shape.

2 – THE RIPOLL WORLD MAP

During 1055-6 a large computus manuscript was put together in the Spanish monastery of Ripoll. The volume contained four books and a long table specifying the Easter days for a period of over one thousand years. The four books contained in the Manuscript were entitled *De Sole*, *De Luna*, *De natura rerum* and *De Astronomia* (The Sun, The Moon, The Nature of Things, Astronomy). Various chapters of the book were compilations of the works of Pliny, Macrobius, Isidore, Bede and others. The manuscript contained an array of diagrams and illustrations used for describing the texts, including two maps. One map inserted in Book IV (Astronomy) is that

of the heavens and the planets, showing their eccentric orbits.

Book III, *De natura rerum* begins with the creation of the universe. From the four basic elements of the creation, three (Water, Air and Earth) are discussed in this chapter. The fourth element, Fire, is discussed in Book IV, which includes selections from Pliny and Bede, concluding in a double page world map entitled *Mappamundi iuxta quorundem descriptione* (Map of the world according to various authors). This work is known as the Ripoll map.

Fig. 57/57a – The Ripoll map is oriented with east at the top and in its presentation adheres partially to the zonal model, having two main zones. The left half of the globe is occupied by the Northern Temperate Zone, the “oikumene” (the inhabited part of the world), while the other half is the unknown portion of the world, separated by the Equator. This bears the legend of being burnt by the hot sun and preventing anyone from crossing it into the other, southern zones. This is in line with the writings of Virgil and the maps of Macrobius (see Chapter 2 Part 1).

The map shows all four elements of Earth, Water, Air and Fire, which the ancients believed are the building blocks of everything in the universe. Earth is the central core of the world, surrounded by Water (the oceans). Air is represented by the twelve winds, shown as winged figurines blowing through a pipe, located inside the surrounding ocean. The dramatic flames represent Fire emanating in all directions from the oceans surrounding the world.

The text around the circular shape of the map describes the three habitable parts of the world, Asia, Africa and Libya, each followed up by the names and circumference of their respective provinces and regions. The description on the right begins with the name of Asia, and from the third line down the regional names listed are *Capadocia*, *Cilicia*, *Syria*, *Commagenie*, *Hybernia*, *Albania*, *Armenia maior*, *Parthene*, *India* and so on. It seems that the text has been copied from an earlier manuscript, possibly the fifth century manuscript entitled *Divisio Orbis Terrarum Theodosiana* (Division of the globe of the earth according to Theodosius), written during the reign of Theodosius II, the ruler of Constantinople (408-450 CE).

In the enlarged map of Fig. 57a details of the region of Armenia and the surrounding areas can be seen. The numbers in brackets refer to the numbers superimposed on the detailed map, which has been enhanced for clarity. Here the main seas of the Mediterranean (1), the Black (2) and the Caspian (3) are shown, the latter as a gulf in the shape of an arrowhead connected to the surrounding ocean with an inlet. Mountains are shown as triangles, the mountain ranges being depicted as extended chains of red triangles. *Mons Caucasus* (4 - the Caucasus Mountains) are named but the Taurus Mountains (5), which are the source of the rivers *Euphrates* (9) and *Tigris* (10), are not. These two rivers are coloured green and appear to have a common source, while flowing into the Persian Gulf/Red Sea as two separate rivers. In the Holy Land *Mountains of Lebanon* (6) and *Mount Sinai* (7) are shown, as are five cities, starting with *Jerusalem* (8), followed by *Bethlehem*, *Hebron* and others. In the territory of Asia only some of the provinces are named such as *Asia Minor* (12), *Hyrcania* (15), *Lydia*, *India magna* (11), *Babilon*, *Caldea*, *Persida* and *Arabia*. Armenia, although named in the surrounding text, is not shown on the map. Its position should have been immediately above Asia Minor, where the red coloured letter “A” appears (16 – see above).

In *Libie* (Africa) only two cities of *Alexandria* and *Carthage* are shown, as well as the river *Nile* (14) with its meandering course. In Europe the largest city is *Constantinople*, shown with a vignette of a three-domed church, below the Mediterranean Sea. As further religious content, the Red Sea (13) is shown in red and disproportionately long, extending almost half the length of the world, complete with its parting to allow the passage of Moses and the Israelites.

Anonymous Manuscript. Dated 1055-56 CE.

Biblioteca Apostolica Vaticana, Vatican. REG. Lat. 123, ff. 143v-144.

Diameter of the map 30 cm



Fig. 57a

3 – THE SAWLEY MAP

Fig. 58/58a – The “Sawley World Map” or the world map of Henry of Mainz shown here is from a manuscript entitled *Imago Mundi*, which is a collection of cosmographical and geographical works by Pliny and others. In addition it also includes an *Itineraria*, History of England, a *Computus* and other theological works. The original of this manuscript dates from the year 1110. The author of the manuscript is said to be Honorius Augustodunensis who, according to a note in the Cambridge copy of the book is one Henry, Canon of the church of St. Mary in Mainz (Maience), who lived in England and Germany, where he died in 1156. The manuscript was originally kept in the Yorkshire Monastery of Sawley, hence its name.

The map is a typical classical T-O map with much-added features and information based on the Christian doctrine. It belongs to a family of maps that include the smaller Psalter map (Fig. 75) and its much larger cousin, the Hereford *mappa mundi* (Fig. 77). The family can be extended by the inclusion of the Cottonian, Vercelli and Ebstorf maps (see Fig. 56, 69 and 70). The present copy is kept in Cambridge and dates from around 1180, but other surviving copies of the map are much simpler and are mainly in the form of sketch maps.

The map is oriented with east at the top, where the island of Earthly Paradise is shown, with the four rivers flowing out into the surrounding ocean. It has many similarities with the Hereford *mappa mundi*, and can be considered as an abridged version of the latter. It also has close connections with the much earlier maps of Jerome (Fig. 11) and Orosius (Fig. 13).

In this maps, as well as others of the same family (Psalter, Hereford, Cottonian, Ebstorf and Vercelli) the world is divided into the three continents. The Mediterranean, which has the inverted L shape, at its eastern end bends

northwards and leads to the *Hellespont* and Black Sea, ending in the Sea of Azov. The river *Tanais* leads from here to the northern ocean and passing through mountain ranges completes the division of *Europe* and *Asia*. The river Nile is not named but is shown having its source not in the direction south of *Alexandria*, but in southeast Africa, in a lake nearer to the Red Sea bearing the legend *Fialus fons Nili*. The Nile is shown having two large islands, one of which is named *Meroe Insula*.⁸⁶ It eventually bends northwards and passes by *Alexandria* to flow into the Mediterranean. All shorelines are outlined green, except those of the Red Sea and the Persian Gulf, which are outlined red.

The inverted L-shaped Mediterranean includes the islands of *Minorga*, *Maiorga*, *Corsica*, *Sardinia*, *Sicilia*, *Crete* and *Delos* - the latter surrounded with smaller and unnamed islands. *Mare Caspiuos* (Caspian, 12 in the detail map Fig. 58a) is shown (top left) as a gulf in the shape of a boot, as an inlet from the northern ocean. Below it from left to right the provinces are named *Hircania* (7), *Amazones* (8) and *Armenia* (1). To the south (right) of *Armenia*(1) are the Taurus Mountains (3), the red mountain range vertically stretching up to almost the eastern ocean.⁸⁷ This range is shown to be the source of the rivers *Tigris*(4) and *Eufrates* (5). Two unnamed rivers, the Arax and the Kura (Cyrus) flow from the Armenian mountains into the Caspian. This layout is very similar to the Ripoll map of Fig. 57. Here the mythical tribes of *Gog and Magog* are walled off but the enclosure has been shifted to the eastern side of the Caspian. In this map the name *Caspiu Porte* (2) has been given to a pass or gorge located inland and far from the Caspian Sea. It cannot, therefore, be the Derbend pass, but is more likely to be the Daryal Gorge (see footnote 33). *Colchis* (9) is situated between southeast of the Black Sea and a range of mountains containing the Caspiu Porte, while *Albania* (10) has been shifted to the north of the Black Sea.

In Asia the map shows the cities of *Bethlehem*, *Jerusalem*, *Jericho*, *Persepolis*, *Babel*, *Damascus*, *Troy* and others. *Mount Sinai* is shown in Southern Asia, near the route taken by the children of Israel through the parted Red Sea. Below it the three section tent-like structure is named Joseph's Barn, which referring to the Egyptian Pyramids. *Egyptus Superior* is located next to the Red Sea, with the monastery of *St. Antonius* across the Nile. The outline of the Red Sea is coloured red. On the African side of the Nile the open horseshoe shaped structure is the temple of Amon Jupiter (*templus Jovis*) located south of the mountain of *Catabathmon*.

In *Europe* the largest area is allocated to *Italy*, showing the cities of *Rome* and *Pisa*, as well as a number of its provinces. The most detailed area of the map is France, with *Paris* shown as an island in the river, as well as others cities such as *Rouen* and *Magoutia* on the Rhone. Other cities in Europe include *Constantinople*, *Cologne* and some others. All in all the map has 229 legends. For comparison of number of legends see the beginning of this chapter. In Fig. 58a the details of the provinces of Armenia and its neighbours can be seen.

1. Armenia
2. Caspiu porte - the gates of the Caspian. Daryal Gorge or Pass, the only passage in the Caucasus range leading to the northern provinces. See footnote 33.
3. Taurus mountains
4. River Tigris
5. River Euphrates
6. Mesopotamia
7. Hircania
8. Amazonia - The region where the warrior women lived.
9. Chaldea
10. Albania
11. Antiochia
12. Mare Caspiuos
13. The Black Sea
14. The Mediterranean Sea
15. Island of Cyprus
16. Island of Rodos
17. City of Constantinople



Fig. 58a

Imago Mundi, dated 1180.
Corpus Christi College, Cambridge. MS. 66, p.2.
Size 20.5 x 29.5 cm.

⁸⁶ According to Shirakatzi this is an island in one of the tributaries of the Nile, in Upper Egypt. Anania Shirakatzi, *Compositions*, Yerevan, 1979 (in Armenian), p.278.

⁸⁷ Orosius believes that the Caucasian range extends from the Black Sea to the distant lands of the east, India etc. See Orosius, *Seven Books*, NY 1936, pp. 35 & 38 and map of Fig. 13, in the present volume.

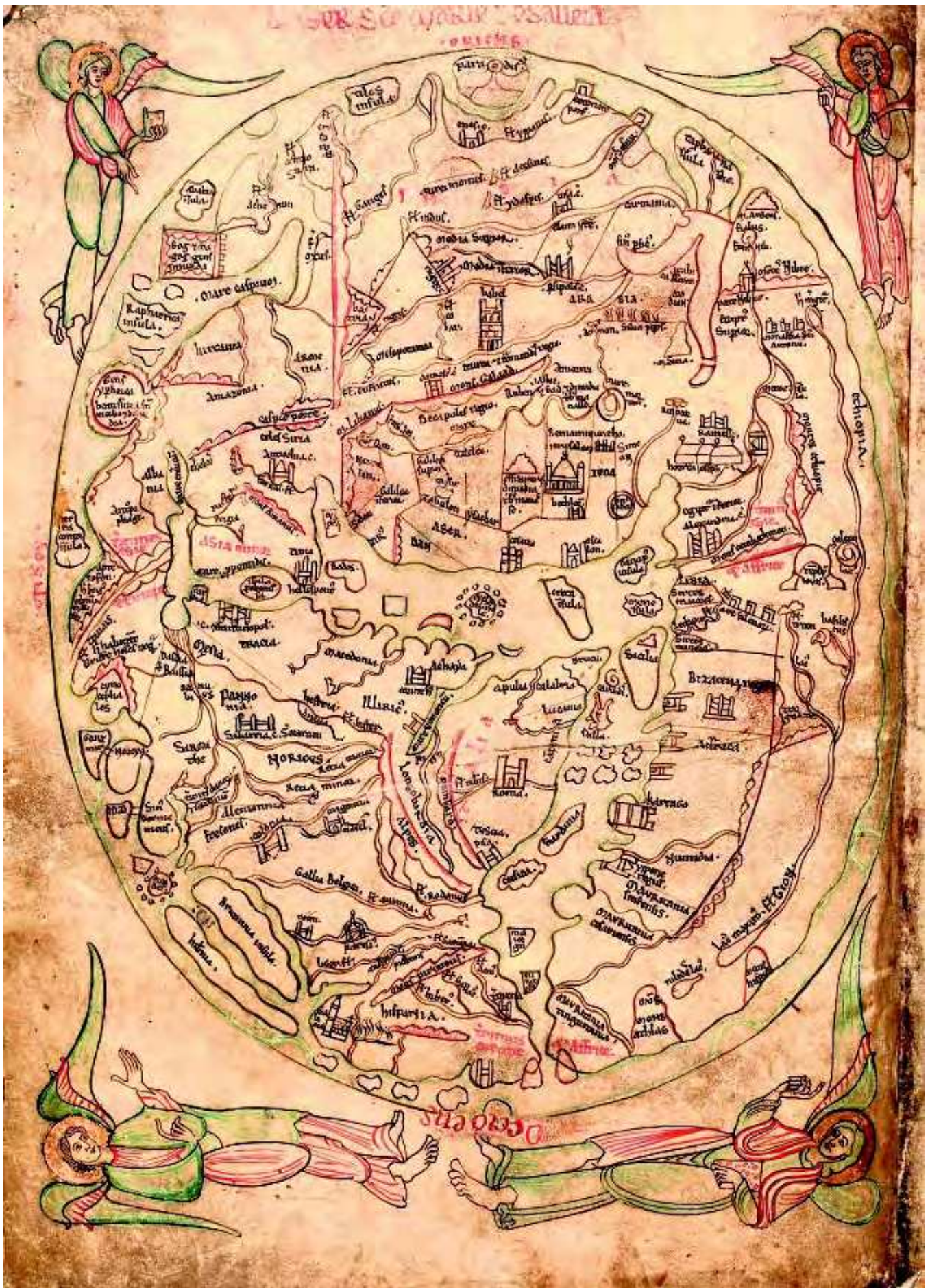


Fig. 58

4 – LAMBERT OF SAINT OMER and his “LIBER FLORIDUS”

Lambert was a French Benedictine monk (ca.1061-1150) and chronicler. He studied theology, grammar and music and became known as a man of great erudition. He was chosen as the Canon of Saint Omer, by which name he is now known.

His most important work is an encyclopaedia of biblical, theological, geographical, natural historical and musical themes entitled *Liber Floridus* (Book of Flowers), completed around 1120.⁸⁸ The manuscript is a treasury

of works taken from various authors and contains a plethora of maps and diagrams including one large *mappa mundi*, of which half a dozen copies have survived.

The texts and the maps are based on the works of many preceding writers, many of whom pagan, such as Macrobius, Capella and others. The manuscript was considered as an important book of reference and learning by the medieval scholars and was therefore much drawn upon.

Fig. 59/59a/60 – These maps are taken from one of the surviving copies of *Liber Floridus*, made around 1180 in Germany.

The world maps of *Liber Floridus* (Fig. 59 and 59a) are of tripartite zonal type, but while zonal maps are generally oriented to the north, this map, which has many similarities with the Ripoll (Fig. 57) map, is oriented with east at the top. The map shows the “oikumene” (inhabited world) in the Northern Temperate Zone, which occupies almost half of the earth. The Northern Temperate Zone itself is depicted in the shape of a T-O map, which makes the map a hybrid of zonal and T-O types. The inscription at the right of the map states that it was taken from the writings of Martianus Capella, a fifth century pagan author.

The accompanying text, confirming that the earth is globe-shaped states that at the reverse side of the globe there are two further landmasses, one north and the other south of the Equator.⁸⁹ This corresponds with the theories of Macrobius, who had also predicted the existence of these “counter landmasses”, predating the discovery of the Americas by over a millennium. Lambert’s proposed theory is also an extraordinary prediction, since the statement was made over three centuries prior to the discovery of the two Americas!

Similar to Macrobius’s maps, this work also boasts an equatorial sea, dividing the world into northern and southern hemispheres. The region of this sea is too hot and scorched; therefore impassable to any living creature. The fourth and unknown landmass is located south of the Equator, thus balancing the landmasses on the surface of the globe. This fourth landmass is comparable in size to the other three known continents combined. The description in this region appears in the detailed text, also taken from Martianus of Capella. In the far western end of the Northern Temperate Zone, at the bottom of the map there is an island, where according to the map’s legend, Lambert places the Antipodes, while Macrobius places these Antipodes in the fourth – the southern - continent. The author further implies that their day and night are different from us, possibly referring to the opposing daylight and night cycles of the eastern and western hemisphere. It implies that the Antipodes live in the western hemisphere rather than in the Southern Continent, as described by Macrobius. This would have been more acceptable to contemporary religious leaders and would not have contradicted religious teachings of the day.

The Mediterranean, which is the stem of the “T” in the inhabited northern hemisphere, has an island in its centre, the Island of *Sicily*. The surrounding ocean is filled with many more islands, the westernmost of which is *Thyle* (Iceland), while there are two *Hybernias* (Ireland) and one *Anglia*, situated in near correct position on the map. In Europe the names of the provinces depicted are *Germania* (twice), *Gallia* (France, 4 times), *Hispania*, *Venezia*, *Italia*, *Magna Grecia* (Greater Greece - also referring to Italy), *Roma* and others - 49 toponyms in all.

Africa, which is to the right of the Mediterranean, includes the names of *Mauritania*, *Numidia*, *Libya*, *Ethiopia* and others. Egypt is shown in the territory of Asia.

The numbers in the brackets in this paragraph refer to the numbers superimposed on the detail map of Fig. 59a. In the centre of the map *Armenia* (1) can be seen shown framed by two parallel lines and surrounded by *Assiria* (2), *Mesopotamia* (3), *Syria* (4), *Cilicia* (5), *Capadocia* (6), *Pontica* (7) and the cluster of five parallel running rivers flowing from a mountain into the sea, entitled *Tygrides*, (8 - possibly Tigris?). Further east lie the provinces of *Parthia* (9), *Mons Taurus et Caucasus* (10) and *Hircania* (11). Directly to the north of Armenia, near the edge of the map is the *Provincia Amazones* (12), the land where the legendary warrior women of Amazone were reputed to live. *Colchis* also

⁸⁸ This title may mean a “selection or pick of flowers”, which in many eastern languages means “anthology”.

⁸⁹ See Chapter 2, part 2, on Macrobius.

appears in the map, but has been allocated an island in the north-eastern sector of the Surrounding Ocean.

In the enlarged detail map of Asia it can be seen that Lambert's map is not a religious in disposition, though it does contain some scriptural content, in spite of the possibility that its source is the map of the pagan author Martianus Capella. The map displays a number of biblical names and features, undoubtedly added by Lambert. The most important and evident of these is the island in the eastern ocean entitled *Paradysus terrestris* (13- Earthly Paradise) at the top, with the four rivers flowing out of it. These unnamed rivers somehow flow underneath the ocean surrounding the island and reach land, where they cross Asia, pouring into the Red Sea and the Persian Gulf (14) The two rivers flowing in the flanks of *Mesopotamia* (3) have not merited naming, but should be the rivers Tigris and Euphrates. Amongst other biblical features are the provinces of *Chaldea* (15 – birthplace of Abraham), *Babylonia* (16) and, at the north, the region enclosed by a barrier and a gate, where according to the Bible, Alexander the Great corralled the 32 wild tribes of Gog and Magog (17), described as *here Alexander imprisoned the 32*. The biblical towns and provinces of *Galilea* (18), *Judea* (19) and *Palestina* (20) are also shown.

The manuscript also has a small illustration, which is the figure of Octavianus Augustus (63 BCE – 14 CE) sitting on a throne holding a sword in his right hand and a T-O shaped globe of the earth in his left (Fig. 60).

The numbers added on the detail map Fig. 59a are:

1. Armenia
2. Issiria – Isauria
3. Mesopotamia
4. Syria
5. Cilicia
6. Capadocia
7. Pontica
8. Tygrides – the Tigris
9. Parthia
10. Mons Taurus et Caucasus
11. Hircania
12. Provincia Amazonas
13. *Paradysus terrestris*
14. The Persian Gulf
15. Chaldea
16. Babylonia
17. Gog and Magog
18. Galilea
19. Judea
20. Palestina



Fig. 59a



Fig. 60

World map of *Liber Floridus*, ca. 1180 CE.
 Herzog August Bibliothek, Wolfenbüttel, Germany.
 MS Cod. Guelf. 1 Gud. Lat. 1, ff. 69v-70.
 Diameter about 39.2 cm.

AUSTER

Plaga austral temperata. s. filis
ade incognita: nichil p̄mens
ad n̄m gen. Mare naq; medi
trancū qd̄ ab ortu solis ad occi
dente defluit. & orbē t̄re diuidit
human' ocul' n̄ uidit: qm̄ soli
ardore semp̄ illustratū qui defuy
p̄ lacteū currit arcuū. accessus
repellit hominū: nec ulla rati
one ad hanc zonā p̄mittit tū
situa. Hanc inhabitare phy
losophi antipodes autumat. q̄s
a nob̄ diuisitate teporū diuisos
asserūt. nā cū estate rorem illi
frigore congelant. Nob̄ ū sep
tentrionalia sydera cernere per
missū ē: & illis penit' denega
tū. Nulla alia astra s̄ que il
lor obrutib; denegent. & que
simul cū illis oriunt' simul
ueniunt in occasu: & dies no
ctesq; sub una longitudine pa
trunt. Solstitij aut' celeritas
& sol p̄ brinā p̄perando re
itens. bis hyemem per illos
inducit

Zona austra
hs frigida in
habitabilis intē
penita

Spera geometrica avarciam hu
mici felicitis capelle affri cartaginen
sis. et figura rotunda & globosa
magnitudinis t̄re eiusq; diuersa
diuisio. & gemin' oceanū circa orbē
ambit'. Oceanū igit' p̄ corona. 20
nam t̄re calida cingit undiq; :

Ab oriente duos sin' refudit.
unū ad septentrionē alterū
ad austrū. et ab occidente

ii. Q' ad ambas extrema
tes refusi. occurrēt ab ori
ente. mixcenq; ferunt.

& ex ipsa aquarū colli
sione nascit' illa famo
sa oceanū accessio et
refusio. & ubicumq;
seu in fretis uel in
angustis locis siue
in n̄ro mare con
tingit. uel in pla
tis latitib; . ex
ipsis oceanū fini
bus semper eue
niunt

5 – A MEDIEVAL ARMENIAN MAP

A search in the Armenian manuscript depository, the Matenadaran in Yerevan, revealed a multitude of manuscripts on texts about celestial bodies, the planets, computus tables regarding the dates of various religious days, comparisons of the month names in different civilizations, itineraries, as well as books on geography and astrology. There are many copies of various tomes entitled “Ashkharhatzuytz” (Ašxarhačuyč - World Mirror) by Movses Khorenatzi, Anania Shirakatzi⁹⁰, Karapet Bagheshatzi, Vartan Areveltzi and others.⁹¹

However, except for that reproduced in Fig. 67, there is a dearth of medieval maps, be it plain circular or elaborate. The nearest are the two wind direction maps, Macrobian zonal maps, maps of the city of Jerusalem,

and diagrams of the Zodiac and eclipses. A few of these diagrams have been shown in previous chapters (see Fig. 3, 4, 9 and 10). In the existing manuscripts only one medieval map could be located – T-O type world map reproduced in the following section (Fig. 67).

However, before coming to the main map, the following are reproductions of some maps and diagrams that, though not entirely germane to the subject at hand, would afford the reader some understanding of the sketches and diagrams in the Armenian manuscripts studied. The manuscripts themselves are only fifteenth or sixteenth century copies, but their originals except in the case of MS.1780, date from the Middle Ages.

Fig. 61 – Orbits of the planets and their relationship with the Zodiac, f. 13b.

Fig. 62 – Plan of the Temple of Solomon, with the locations of the tribes and relationship between the rites of Judaism and Christianity. f. 58b.

From Matenadaran, Yerevan, Armenia.
Manuscript No. 8973, dated 1445,
Theodosia (Caffa).

Fig. 63 – Diagram of the phases of the sun and the moon, f.115b.

Fig. 64 – The human body and its relationship with the Zodiac, f. 354b.

Fig. 65 – The plan of Jerusalem, f. 392a.

From Matenadaran, Yerevan, Armenia.
Manuscript No. 1770, dated 1589.

Fig. 66 – The planets and the Zodiac as per Ptolemy’s Geographia.

From Matenadaran, Yerevan, Armenia.
Manuscript No.1780, dated from 1617,
f. 305a.

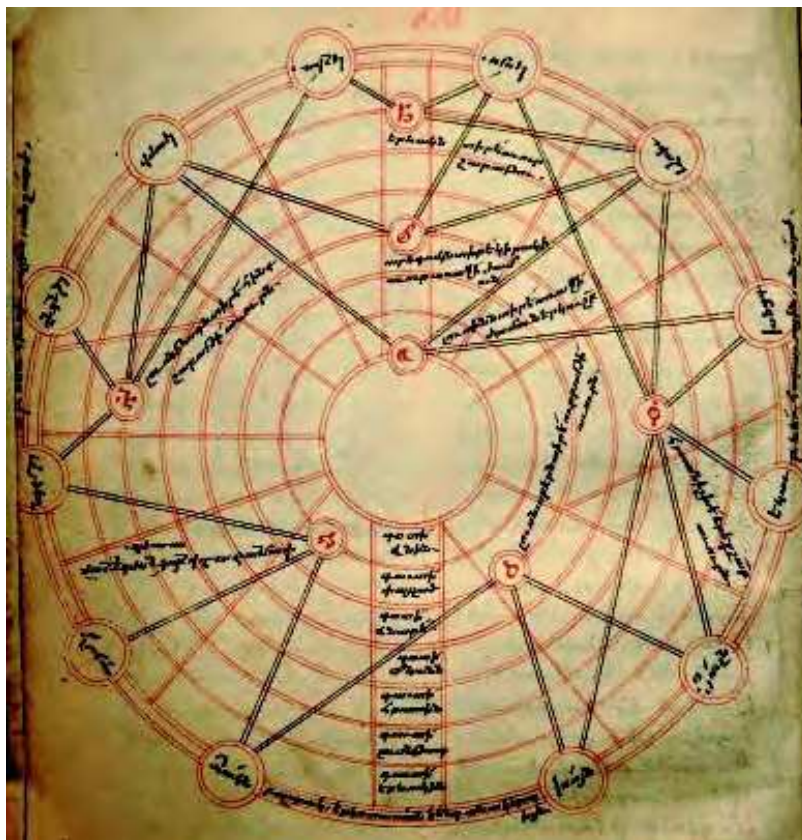


Fig. 61

⁹⁰ Abrahamian, Prof. Ashot G., *The works of Anania Shirakatzi, Ashkahrhatzuytz*, Yerevan, 1944 (in Armenian).

⁹¹ There are conflicting views about the origin of the Ashkharhatzuytz. Some believe that it is the work of the seventh century Armenian mathematician and scientist Anania Shirakatzi, while other believe that it owes its origin to Movses Khorenatzi, the fifth century Armenian historian, which has been updated and revised by others, including Anania Shirakatsi. See Harutunyan, Babken – Preface to Ashkharhatzuytz of Khorenatzi – Armenian Classical Authors, Vol. 2, Fourth Century, (Armenian Library of Calouste Gulbenkian Foundation), Antileas, Lebanon, 2003 (in Armenian), pp. 2123-2136.

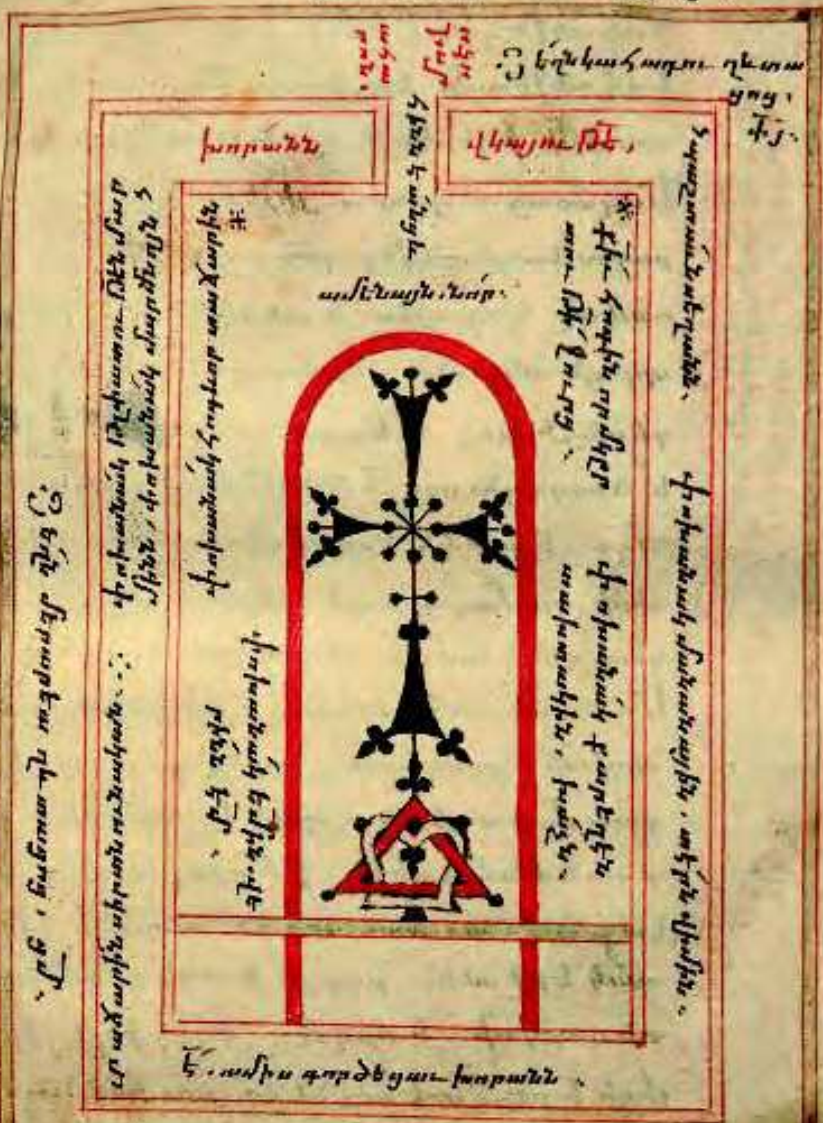
Ընդամենը բանակին, դանա, թի, և ու, Ընդամենը բանակին յուրայ, թի, որք յետևեն չորսորդ չուէին, ց ու, որք յետևա որք չուէին:

Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ, Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ, Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ:

Ենանային

Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ, Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ:

Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ, Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ, Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ:



Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ, Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ:

Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ, Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ:

Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ, Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ:

Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ, Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ:

Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ, Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ:

Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ, Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ:

Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ, Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ:

Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ, Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ:

Ընդամենը բանակին, Ե, զն, և իշխաննց, որք Ենանայ, Ընդամենը բանակին, Ե, զն, և իշխաննց, որք Ենանայ:

Ընդամենը բանակին, Ե, զն, և իշխաննց, որք Ենանայ, Ընդամենը բանակին, Ե, զն, և իշխաննց, որք Ենանայ:

Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ, Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ:

Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ, Ենթևեկ Բաղթան, Ե, զն, և իշխաննց, որք Ենանայ:

Ենանային

Ենանային

Ենանային

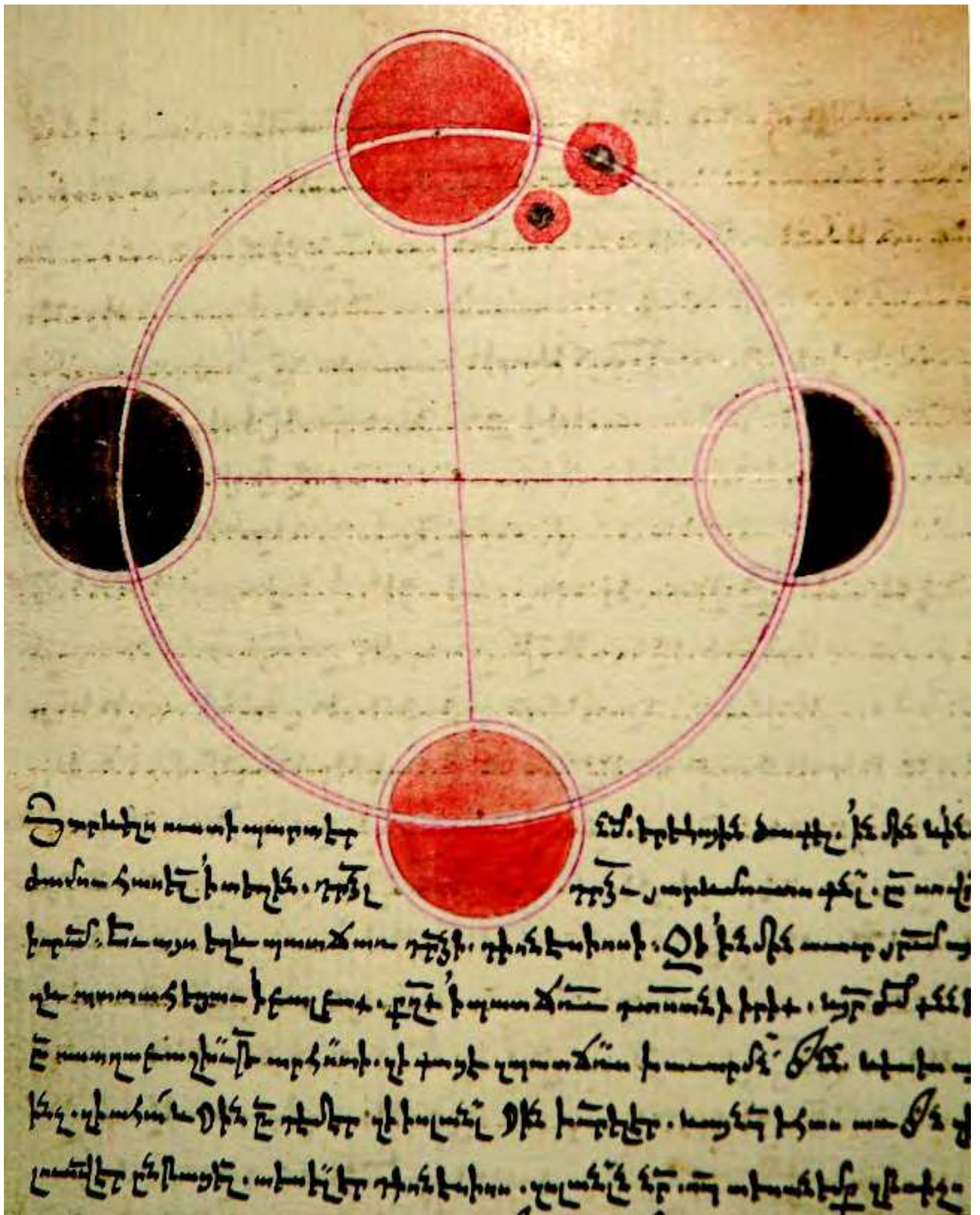


Fig. 63



Fig. 64



Fig. 66

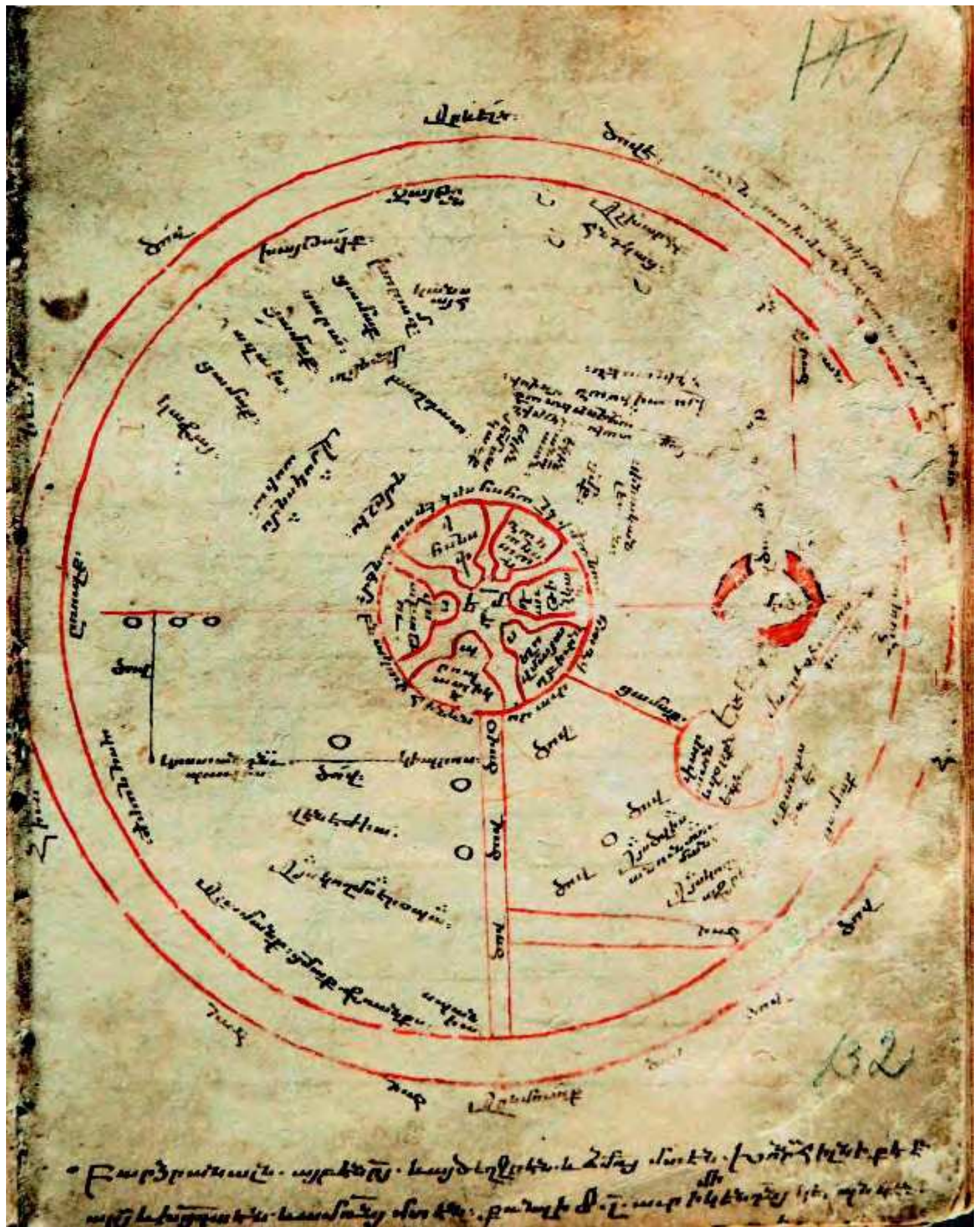


Fig. 67

Fig. 67 – This is the only T-O type map in the Armenian language, Matenadaran, Yerevan. It is anonymous and various scholars have dated it as early as from 1206⁹² to as late as 1360⁹³. It is included in a collection of astronomical and mathematical essays dating from the fifteenth century in which there are no other references to this map. The map is oriented with east at the top and is an enhancement of the simple T-O model. Outside the outer circle we see the names of the cardinal points while near its outer periphery the legend shows the names of a number of countries, while further inward the legends bear the names of some important commercial and religious cities. Fig. 67a shows the Armenian legends superimposed by their English translations.

As in most Christian medieval maps, the centre of the map is occupied by the city of *Jerusalem*, drawn hugely out of proportion, showing its six gates and quarters, surrounded by a circular legend which reads: *The city of Jerusalem, populated in ancient and recent times by the Israelites*. This plan is very similar in shape and description to that depicted in the Armenian manuscript of Fig. 65, dating from 1589. As far as religious content is concerned in addition to *Jerusalem*, *Mount Sinai* can also be seen to its southeast, with the *Red Sea* shown in red located at its south. Above the city of Jerusalem the radial legends read *Came to the Monastery* and *A few came to Je[rusale]m*. Above this the inverted legend states *Tablets of Law that God gave Moses*.

The entire world is surrounded by an ocean, described as *The all-encompassing sea, which is in this shape*. The Mediterranean, labelled only as *sea*, is shown with a double red line dividing Africa from Europe. The Europe/Asia division is marked with a red line, an ambiguous feature as it is not clear what is represented by it. The northern tip of this line is probably the river Tanais (Don), which terminates in the Sea of Azov. There is a black line branching off from the Mediterranean, not far from Jerusalem, the horizontal part of which represents the Aegean Sea, Straits of Dardanelles, Sea of Marmara and the Bosphorus. *Cyprus* is located on the same line (sea) near the Mediterranean, while at the other end, near the Bosphorus, the legend reads *Constantinople*. After Constantinople the line turns sharply to the right and continues up (eastward), representing the Black Sea and the Sea of Azov, into which in the river Tanais (Don, not the River Dnepr, as proposed by M. Khachaturian) dividing the two continents flows, terminating at the left bar of the letter “T”.⁹⁴ This representation is nearer to reality than what we see on most other T-O maps, where the river Tanais is shown flowing into the Mediterranean. The Mediterranean Sea contains four circular islands, three of which are unnamed and the fourth, shown at the junction of the Aegean Sea, is labeled *Cyprus*. One of these islands is located at the top, between the two parallel lines, while the other three are found outside the boundaries of the sea.

The inscription to the left of the stem of “T” reads *this side is E[u]ropa*, the cartographer then continuing with the names of the four countries of *Bulgars*, *Alemans*, *Franks* and *Spania*. More centrally we see the city of *Venejia* (Venice). As mentioned above, the black line branching left near the island of *Cyprus*, is the Aegean Sea, extending to the Bosphorus, which near *Constantinople* turns sharply eastward. Names of the two cities in Europe are not selected at random. Those selected are Venice, as the most important trading centre for the Armenian merchants and Constantinople, the capital of the Byzantine Empire and the most important political centre of the time.

To the right of the stem of the “T” we see the legend *this side is Africa*. The area contains a red circle with the inscription *Pharaoh and the army of Egypt*, the city of *Scandaria* (Alexandria) is to the south of this circle, with the inscription *Hapash* (Ethiopia) appearing at the southernmost point of Africa. The Red Sea is an open red circle, and although the legend is rubbed and not fully legible, it seems to show the parting of the sea, allowing the passage of Israelites out of Egypt. There is a river running vertically from the east between the Red Sea and the surrounding Ocean, to the far left of which the legend reads *This Sea is called Nil*. The name “sea” here is given to the important bodies of water such as the oceans, the seas, lakes and the large rivers. In West Africa there is a small circle, doubtlessly a lake, with the inscription *This sea is called Tuman*. To its west is a river, shown by two parallel red lines, which only bears the inscription *Sea*, connecting the Mediterranean, near its western end, to the southern ocean.

The Lion’s share of the map is occupied by Asia. Here, from the centre left of the map (north) we can see the country of *Rusq* (the old Rhus, Russia) located on the borders of Europe. To its east the legends are written on radial lines and read: *Caffa* (the name given by the Genoese to Theodosia, today’s Feodosia), *Azach* (Azov), *Sarai*⁹⁵, *Khāwrazm* (Oxiana or Khiva) and *Kansaih* (Kansai – important trading city in China), being the last legend written horizontally. At the eastern border of the circle the legends from left to right read: *Khaytai* (China), *Zaytun*, *Lands of the Indians* as well as *India*, which is at the south-eastern extremity of the map. In the medieval period the designation “India” was used much more loosely to refer to the lands east of Persia, Media and the Middle East. Therefore *Lands of the Indians* most probably refers to the northern and western neighbours of India, such as Persia and its neighbouring

⁹² Khachaturian, Mkrtych. M., *The Medieval Oval Map in Armenian*, Yerevan, 1976 (in Armenian). The author has doubts about this date and thinks the map is from later date.

⁹³ Hovhannisian, Hovhannes, *An Armenian manuscript map of the world*, Vol. 43 University Scientific Publications, Yerevan, 1954, (in Armenian), pp. 81-93.

⁹⁴ Khachaturian, op. cit., pp. 219/221.

⁹⁵ Almost certainly Sarai refers to the old capital of the Golden Horde, Sarai-Batu (Old Sarai), built in 1240’s or Sarai-Berke (New Sarai), which was built around 1260’s. These cities were located in the region of Astrakhan, northwest of the Caspian Sea.

provinces while the second legend denotes India proper. The presence of all these toponyms in the area between Europe and China bears witness to the importance of these towns and provinces in trade and commerce between east and west and is perhaps indicative of the period of the map's creation. It also underlines the possibility that the author of the map may have originated from this area, possibly Theodosia (*Caffa*), itself a centre of Armenian learning and trade.

Regarding the Chinese city of Zaytun, this name appears as late as in the map of Bolognino Zaltieri entitled "*Il disegno dell'iscoperto della nova Franza*" printed in Venice during 1566, where the port city of Zaytun and the Bay of Zaytun are shown (see the following paragraph).⁹⁶ This is one of the cities in the present day Province of Fujian. For the first time this map also shows the Bearing Straits, then called *Stretto di Anian*.

It is worth noting that in ancient times the port of Quanzhou or Tseu-Tung was an important trading post with the Arabs and Persians, and in Arabic it was called *Zaytun*. According to the fourteenth century Arab traveller Ibn-Battuta (1304-1368/9) this was the "largest port he had ever seen, which could easily accommodate over 100 large Chinese junks".⁹⁷ This port was located across the water from the island of Formosa and according to Ibn-Battuta, the name of the shiny fabric "satin", which was made in and exported from this town, is actually derived from its name "Zaytun". He further asserts that the port city of Khansa or *Kansai*, located not far from *Zaytun*, is the largest metropolis in *China*.⁹⁸ The thirteenth century traveller Marco Polo mentions the names of both these towns as being very important cities trading with Japan (Zippangu) as well as the Arabs and Persians, who had settled there in their thousands.⁹⁹ This Armenian language TO map is unique in the sense that here, for the first time in a Christian T-O map, the names of China (*Khaytai*) and the two important cities of *Zaytun* and *Kansai* are mentioned. These same names appear on the Catalan Atlas of 1375 (attributed to Abraham Cresques) as *Ciutat de Zaytun* and *Ceuta de Cansay*. Even the Fra Mauro world map, made in 1459 does show a *Regio de Zaiton* (Kingdom of Zaiton) near Formosa. Nearer the centre of the map we see the cities of *Merdin* (Mardin), *Baghdad* and *D[a]m[a]sc* (Damascus).

M. Khachaturian's paper on this map includes incorrect information and assumptions.¹⁰⁰ He calls the map "oval shaped" having a variable diameter between 98 and 101 mm. This is quite inaccurate, since the map's dimensions are 125 mm for the external circle diameter and 113-114 mm for the second, inner circle diameter. The map is certainly circular and the hole at the centre of the circle, visible on the page, is the mark left by the compass pin, confirming this fact. In his monograph about this map, M. Khachaturian also proposes that this horizontal left bar of the "T" is the river Dnepr not the Don, in spite of the fact that in all T-O type maps of the medieval period this river is the Tanais (Don). His assumption is based on the point of the junction of this river and the sea, completely overlooking the fact that all medieval T-O maps, including the maps in this volume, are schematic diagrams where regions and topographic features were shown only at their approximate locations, sometimes widely off the mark. All other toponyms on the very same map bear witness to this fact. Indeed, Khachaturian himself on pages 221 and 223 of the monograph states that the locations of toponyms on the map do not correspond to their actual coordinates and are only shown in approximation.

Dating the map has also been controversial, varying from 1206 to mid fourteenth century. Khachaturian proposes the unlikely hypothesis that it dates from 1206. Khachaturian bases his conjecture on the assumption that all the toponyms appearing on the map are contemporary to its origin. This is an inappropriate premise on which to base such a theory as it presupposes that the toponyms are reflective of the period when these towns or provinces were important and well known. Late medieval maps commonly included many toponyms, which during the making of a particular map were either in ruins or had lost their importance. Such names include Babylon, Albania, Assyria, Phrygia, Lyida and many more which can be encountered in a host of late medieval maps. In order to press this point Khachaturian even tries to disguise the existence of the city of Sarai on this map.

The Mongol (Golden Horde) city of Sarai-Batu, whose name appears on the map was founded in the 1240's, but Khachaturian insists that the toponym *Sara[i]* mentioned in the map relates to some other geographic location, possibly an island in the Caspian Sea. This is not a valid assumption, since the Caspian is not mentioned here at all and, moreover, did not contain any inhabited islands named "Sarai". Whereas in his memoirs, the thirteenth century Flemish Franciscan traveller William de Rubruck (1220-1293) recounts his visit to the Golden Horde's city of [Sarai] Batu, where he was a visitor in 1253.¹⁰¹ Khachaturian also adduces other specious reasons for his dating, which do

⁹⁶ Yefimov, Alexander Vladimirovich, *Atlas of Geographical Discoveries in Siberia and North Western America in XVII-XVIII centuries*, Moscow, 1964 (in Russian). Map No.14, p. 9.

⁹⁷ Ibn-Batuta, *Rehle* (Travelogue), In two volumes. Translated from Arabic and notated by Dr Muhammed-Ali Movahhed, Sepehr, Tehran, 1990, (in Farsi), Ch. 29. pp 290-295.

⁹⁸ *Ibid.*, pp. 202-3

⁹⁹ Marco Polo, *The Travels of Marco Polo, the Venetian*. Translated and edited by William Marsden, re-edited by Thomas Wright. Garden City, NY, 1948.

¹⁰⁰ Khachaturian, *op. cit.*

¹⁰¹ Hakluyt, Richard, *The principal navigations, voyages, traffiques and discoveries of the English nation, made by sea or over-land to the remote and farthest distant quarters of the earth at any time within the compasse of these 1600 yeeres*. Glasgow, 1903, pp 271-276.

not stand up to close scrutiny. Furthermore, *Caffa* used to be the small port of Theodosia, which was taken over and revitalised by the Genoese during the late thirteenth century, (according to Ajarian, in 1266) when they leased the town from the Golden Horde.¹⁰² The Italians renamed the town *Caffa* and made it a flourishing outpost for their trade with the east.¹⁰³ The earliest mention of Caffa in Armenian literature dates from the middle of the thirteenth century and Caffa, or Theodosia as it was previously known, became a major Armenian settlement by the middle of the fourteenth century. It is claimed that by then majority of its population of 70,000 was Armenian, boasting many flourishing manuscript production scriptoriums.¹⁰⁴ The presence of the name of *Caffa* on the map is itself yet another proof to support later dating and the provenance of the map.

In all likelihood, the map dates from late thirteenth century, sometime after the establishment of the cities of Sarai-Batu or Sarai-Berke (New Sarai, established during 1257-66) and when *Caffa* had gained significance. Hovhannisian argues that the presence of both commercial centers of *Khāwrazm* and *Sarai* in the map are indicative of the period when the Golden Horde had close connections with *Khāwrazm*, which was from 1240's up to around 1360's.¹⁰⁵ The work can therefore have been created as late as 1360. The most creditable hypothesis is that it was composed towards the end of the thirteenth and the middle of the fourteenth centuries, or even slightly later.

The origin of the map is possibly the city of Caffa, since, the medieval mapmaker living there could easily come into contact with the western traditional maps of the time. The existence of the northern Silk Route cities of Sarai, Azov and Caffa on the map are further proof for the familiarity of the mapmaker with this region. This contradicts Khachaturian's assumption that the map was made in the Cilician Kingdom of Armenia, on the north-eastern corner of the Mediterranean, overlooking the fact that the map does not contain any toponyms related to Cilicia or its neighbouring areas.

It is curious to note that while the majority of similar maps produced in the Christian West show Armenia, Mount Ararat and Noah's Ark, the Armenian author of the map has chosen not to mention his homeland, her neighbouring countries or any of the above features on his circular T-O map. This could be explained by the fact that living far from his homeland, he has not felt any particular affinity with it.

For a revised and longer discussion of this map see author's monograph entitled "A Medieval Armenian T-O Map" in *Imago Mundi The International Journal for the History of Cartography* vol 60:1 (2008, in press).

Collection of manuscripts. Bound during the fifteenth century.
Matenadaran, Yerevan, Armenia.
Manuscript No.1242, f. 132a.
Map diameter 12.5 cm.

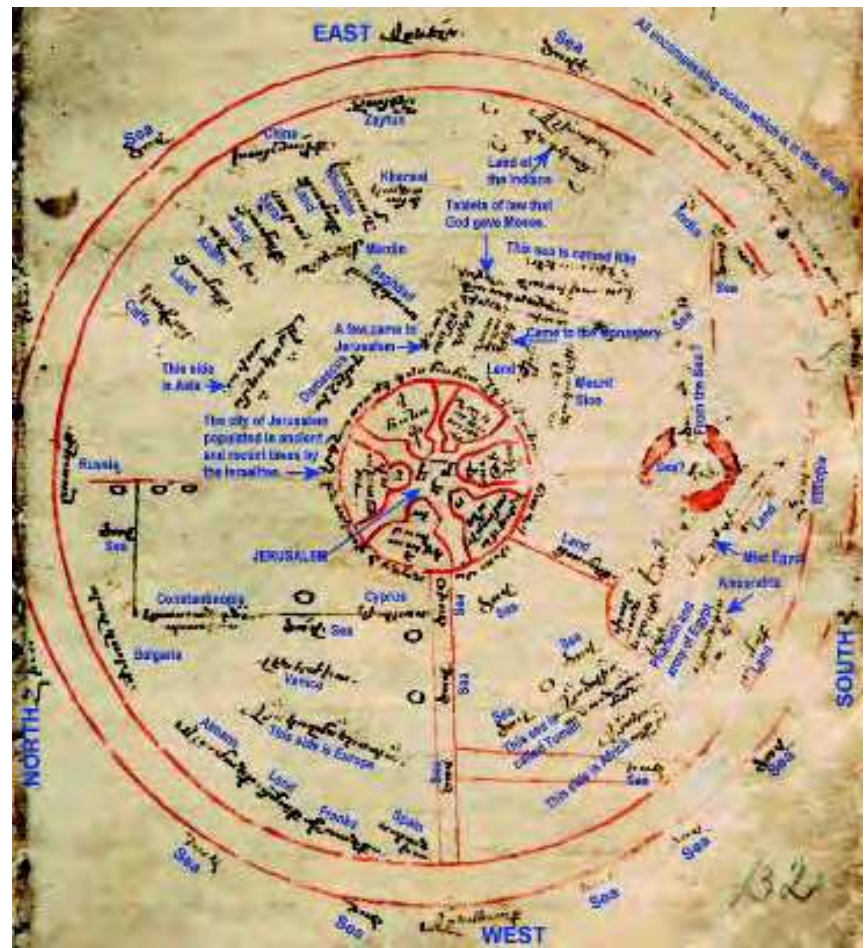


Fig. 67a

¹⁰² Donabedian, Patrick - *Armenians in Crimea during the era of the Genoese* - Roma Armenia, Catalogue of exhibition. Curator Claude Mutafian. Rome, 1999, pp. 188-9 and Mikayelyan, Vartges A., *History of the Crimean Armenian Community*, Yerevan, 1974 (in Armenian) pp. 64-68.

¹⁰³ King, Charles, *The Black Sea: a history*. Oxford, 2004, pp 84,95,91,94.

¹⁰⁴ *Soviet Armenian Encyclopaedia*, Yerevan, Vol. 4, 1978, p. 170.

¹⁰⁵ Hovhannisian, op. cit., pp. 81-93.

6 – MAPPA MUNDI FROM AN ENGLISH BESTIARY

A Bestiary is a compendium of short stories (mostly 48) about the nature of imaginary and real animals, birds, plants and stones. These are generally illustrated and each illustration is accompanied by a descriptive text, which includes a religious and moral interpretation regarding the subject character as an allegory of humans, Christ and the Devil¹⁰⁶. These originate from around the second century and were written in Greek, entitled “Physiologus”, of which around 77 manuscript copies survive. The work

was translated into Syriac, Coptic, Arabic, Georgian, Ethiopian, Armenian and Latin, from which they were later translated to Anglo-Saxon, French and other West European languages.¹⁰⁷ These were made popular around the twelfth century England and France and around fifty copies of these translated manuscripts have survived.¹⁰⁸ The map of Fig. 68 is from a copy belonging to the Third Family of Bestiaries and dating from 1220-1230 CE, kept in the Fitzwilliam Museum of Cambridge.

Fig. 68 – The map reproduced here is a mappa mundi from a thirteenth century Bestiary. This is an unusual world map - unique in two aspects. First, the map is from a Bestiary, which appears to be the only Bestiary that includes a separate world map or vice versa, this is the only mappa mundi as such, found in a Bestiary. The other aspect is that the map itself is of unusual classification, since as far as its general layout is concerned, it is a modified T-O type map where, according to the rubric below it, the Mediterranean Sea is the blue horizontal waterway shown extended across the world, cutting it into two halves. The map looks like a T-O type map oriented with east at the top, but the most important feature of T-O maps, the vertically shown Mediterranean Sea, which separates Europe from Africa is rotated and presented as a waterway running between north and south, separating Asia from the rest of the world. In spite of the text of the rubric below, where the world is said to have been divided into three continents of Asia, Europe and Africa, the misplaced Mediterranean makes the two latter continents appear as one. This representation refers back to the period where according to Orosius, *some considered the world to be divided into two continents*, rather than the later accepted version of the three continents (See Chapter 2, Part 4).¹⁰⁹

Names of the continents appear outside the circle of the globe and the surrounding ocean together with the names of some of the winds. As mentioned above, the horizontal waterway connecting the opposite sides of the ocean from north (left) to south is the representation of the Mediterranean Sea. This is very different from the representation of the Mediterranean in other T-O maps, where the left arm of the letter “T” would represent the river Tanais, the Sea of Azov, the Black Sea and the Aegean Sea, and the right arm would be the river Nile. This sea in this map is full of islands, which bear the legends *Creta, Rodos, Cyprus, Delos, Tenedos* and *Sitera*, all being islands in the Eastern Mediterranean.

The religious connections of this map are the *Paradisus terestris* (Earthly Paradise) in the east, the cities of *Ierusalem* (red) represented with a vignette of a church and the Crusader city of *Acre* (red), both located towards the centre of the map under Jerusalem. Inside the circle of the map three other names appear in red, these are *Assi—ri—a* in Asia and *Roma* and *Parisius* in Europe.

Inland the toponyms have their initial letters smaller than the rest of the letters of the legend, separated from them by an additional space, thus making reading of the names somewhat confusing. The other toponyms in *Asia*, starting from the east include *India Minor, India Maior, Assiria* (red), *Caucasus, Babilonia, Chaldea, Media, Parthia, Mesopotamia, Syria, Persida, Hyrcania, Armenia, Arabia, Antiochia, Capadocia, Mare Rubrum* (written staggered on two lines), *Hyberia* (Iberia), *Cyrus, Cylicia, Scithia Superior* (near the edge), *Pales-tina, Egiptus, Licia, Ysauria, Judea* and *Alexandria*, plus *Ethiopia Superior* at the southern edge of the map. These are mainly toponyms of provinces and towns with the exception of the *Mare Rubrum* (The Red Sea), *Caucasus* and the river *Cyrus* (Kura). Provinces near the Caucasian Mountains and around *Armenia* are; *Parthia* and *Mesopotamia* located in the east, *Hyrrcania* and *Hyberia* in the north, *Cylicia* and *Capadocia* in the west and *Palestina* and *Arabia* in the south. Geographically these and most other toponyms in Asia are more or less correctly positioned. Ethiopia is divided into two parts, *Ethiopia Superior*, shown at the southern edge of *Asia* and *Ethiopia*, located in *Africa* and shown at the south-western edge of the circular map. As one can note, from the countries south of the Caucasus only *Armenia* and *Iberia* are shown.

¹⁰⁶ Muradyan, Gohar – *Physiologues, The Greek and Armenian Versions with a Study of Translation Techniques* – Hebrew University Armenian Studies 6, Leuven, 2005. p. 1.

¹⁰⁷ The Matenadaran in Armenia has 35 Armenian language copies of the Bestiary. Ibid. p.2.

¹⁰⁸ *The Medieval Bestiary*. <http://bestiary.ca/> website

¹⁰⁹ Orosius, “*Seven books of History against the Pagans*”, New York, 1936, Book 1, Ch. 1, Sec. 1.

Since the continents of *Europe* and *Africa* are shown joined together, without the dividing Mediterranean Sea, the toponyms of the two continents are mixed and some are placed in geographically quite incorrect locations. The legends in the European part (left) include the names of *Scithia inferior*, *Barbaria*, *Mecia*, *Germania Superior*, *Pannonia*, *Tracia*, *Germania Inferior*, *Alemania*. Towards the centre of the map, where the Mediterranean should have been shown, the legends from top to bottom read *Apulia*, *Italia*, *Alpes*, *Hispania minor*, *Francia*, *Parisius* (red) and *Normanida*. The names appearing in the African part of the landmass include that of *Grecia* and *Roma* (red), *Britannia* appearing at the lower edge of the map, along with some African provinces such as *Getulia*, *Mauritania* and *Ethiopia*.

In the surrounding ocean there are many islands, the most familiar ones being *Anglia/Wallia* (Wales), *Scocia*, which is separated from *Anglia* by Hadrian's Wall, and *Hybernia* (Ireland). All three are located near the region of *Britannia*, which itself is indicated in *Africa*, next to *Ethiopia*, on the shores of the ocean. The island of *Tylos* (Bahrain) is located in the east, near *India Minor* and near the island of *Bragmannorum Insole*, the island of Brahmins or wise men, who lived near India. Another island is *Gades* (city of Cadiz in Spain) located near the mouth of the central waterway, the Mediterranean, near the left border of the map. In this map the compiler has erroneously drawn the Mediterranean

extending from north to south, hence *Gades* has ended up placed at the northern edge of Europe rather than in its western edge, where it really belongs. Other large islands include *Taprabana* (Ceylon – near Tylos in the east) and *Orcadia* (The Orkneys – in the northwest), which is said to consist of 33 islets, twenty of which are uninhabited. It is obvious that the compiler of the map has not paid much attention to their correct positioning in the surrounding seas and has scattered them in the ocean in a haphazard manner.

Bestiary, dating from 1220-1230 CE.
Fitzwilliam Museum, Cambridge. MS 254, f. 1v.
Diameter of the map 16.8 cm.

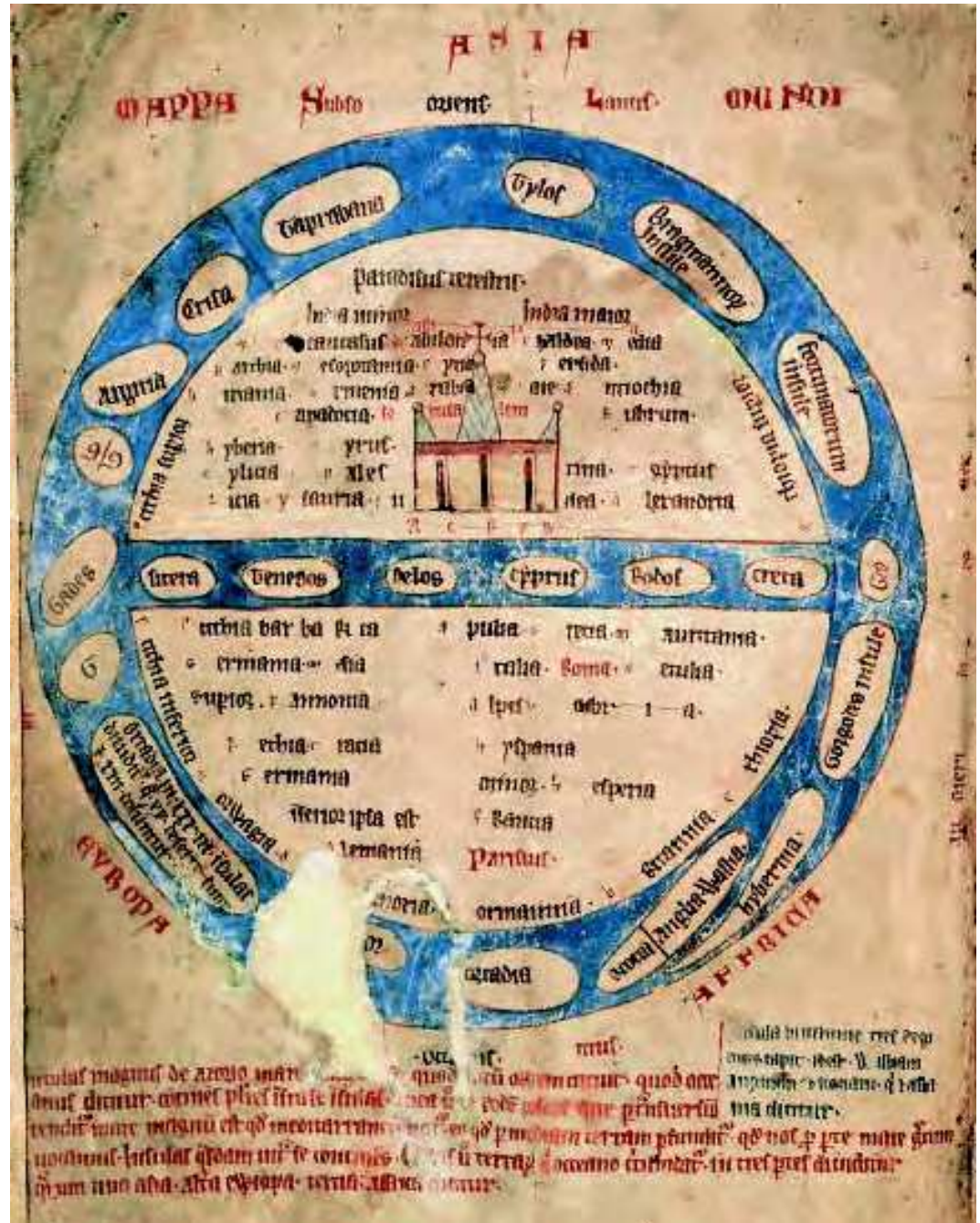


Fig. 68

7 – THE VERCELLI MAP

Fig. 69/69a – The Vercelli map, now kept in Archivio Capitolare Vercelli in Italy, after which it is named, is one of the large maps having survived in part or entirety (see Chapter 4, Part 7). This is the smallest of the surviving maps and measures 84x72 cm. The map is missing some parts and it was not in a good preservation state and furthermore, it was badly damaged after recent unsuccessful restoration attempts. Having been dated to between 1191 and 1218. The Vercelli Map is believed to be the oldest of the three surviving almost complete *mappae mundi* and is assumed to have been drawn in England, but its author is unknown. It is believed that the map was brought from England to Vercelli by Cardinal Guala-Bicchieri around 1218/19.

In context it is similar to the other three maps, depicting towns, provinces and countries, as well as vignettes and figures of mythological and biblical creatures with legends describing various peoples, places and events.

The map is oriented with east at the top. Most of northern and southern parts of the world are missing and in the west (bottom) the area of Europe and Africa is damaged and the writings were obliterated during the recent unsuccessful restoration efforts. In its style and presentation it has much similarity with the Ebstorf and Hereford maps (see Fig. 70 and 77), containing depictions of animals and mythological creatures and containing biblical and mythological texts, with the main difference being that it is not centred on Jerusalem.

The enlarged detail Fig. 69a shows part of the map, the region of Asia Minor and the Middle East, with added numbers which are referred to in the brackets. Here one can see *Archa Noe* (17), Noah's Ark in the shape of a four-storey vessel (at the bottom right), as well as the inscription *Armenia* (1) in large capital lettering next to it. The Ark (17) is sitting with a twin peaked mountain to its left, which bears the legend *Arat* (18), which is Mount Ararat. The colours of the detail map have been enhanced and the contrast increased in order to make the writings more legible.

Above the Ark (17), there is a blurred legend, which had been in a much better shape prior to the latest "restoration" efforts. This legend reads:

*This region is named Armenia after a companion of Hercules, Arminus, who was king in that land.
The land stretches to the city of Albania.... called Dinan.*¹¹⁰

The region of *Colchis* (6) is shown as being near the Black Sea (15), with the city of *Colchis* (5) situated by the sea. Nearby the spotted sheepskin symbolizes the Golden Fleece (20), which according to the legend, was seized by Jason and the Argonauts. The text of the legend reads:

*This is the kingdom called Colchis [Abkhazia]. Here was the ram that had a Golden Fleece and was taken away by Jason.*¹¹¹

The curved line with leaf-like decorations is the Caucasus Mountain range (16), with the Caspian Gates (21) shown as with vignette of a large gate in its middle, connecting the region of *Armenia* to the Caspian Sea (11) above. The mountain to the west of the Caspian bears the legend *Mons Caspius* (12).

¹¹⁰ Chekin, Leonid S. - *Northern Eurasia in Medieval Cartography.* "Terrarum Orbis" series No.4 - Belgium, 2006, p. 146.

¹¹¹ Ibid.

The toponyms numbered in the detail map are:

1. *Armenia*
2. *Trophilie*
3. *Capadocia*
4. *Casaria*
5. *Colchis* – city
6. *Colchis* – region (Abkhazia)
7. *Anagne* – city and region
8. *Macria*
9. *Carres*
10. *Serapolis*
11. Caspian Sea
12. *Mons Caspius*
13. *Fl. Araxis*
14. *Fl. Alis* – The river Halys in Asia Minor
15. Black Sea
16. The Caucasus Range, curving towards the Far East. See footnote 87.
17. *Arca Noe* – shown near Ararat
18. *Arat* – The twin peaks of Mount Ararat
19. *Sepulchre of St. Bartholomew*
20. The ram with the *Golden Fleece*
21. The iron gates of Caspia or Alexander's Gates. See footnote 33.

Archivo Capitolare Vercelli, Italy. Dated 1198 to 1218
Size 84 x 72 cm (part).



Fig. 69a



Fig. 69

8 – EBSTORF MAPPA MUNDI

Up to the middle of the twentieth century the largest of the surviving medieval maps was the map in the Benedictine Abbey of Ebstorf, which measured 358x356 cm (almost circular). This map is also of English origin and has been attributed to Gervase of Tilbury, a scholar who spent some time in Bologna, who also served some ten years as a provost in Ebstorf. Gervase is the author of *Otia Imperialia*, a selection of works on the subject of cosmography, geography, history, mythology and folklore, written in 1211 for entertainment of the Holy Roman Emperor Otto IV. The book contains reference to

a map, a copy of which is said to be the Ebstorf map. The map dates probably from 1232. This theory is supported by the fact that many of the descriptions appearing on the map are exact copies of the texts that can be found in Book II of *Otia Imperialia*, dedicated to the description of the world.

The map was taken apart, sent to Berlin and photographed in 1890's, after which it was returned to the museum in Hanover, where it was destroyed in 1943 during an Allied air raid.

Fig. 70/70a – This Ebstorf map has been reconstructed from the photographs of the original taken in Berlin during the 1890's. As mentioned previously, the original dating from c.1232 was destroyed during 1943.

The map is basically a religious one, with Jerusalem in the centre, painted in gold and oriented with east at the top. Christ is shown embracing the whole globe of the world, with his head appearing above, and his feet protruding from under it. His hands can be seen stretched and holding both sides of the world. Thus the world can be perceived as the body of Christ. *Paradise* is in the east, shown with Adam and Eve as well as the apple tree and the Serpent. The four biblical rivers have their sources in Paradise, where they are born and disappear underground to emerge in prescribed locations of the inhabited world. According to this map *Jerusalem*, covered with gold leaf, is the centre of the world. See Figures 70b and 70c. Noah's Ark is shown perched on top of the twin peaks of Ararat and Noah is depicted with open arms welcoming the white dove, which has returned with an olive branch in its beak.

The map is in the accepted T-O format, with very elaborately drawn Mediterranean Sea, which has many branches, inlets and is full of islands. The islands of *Sicily*, *Crete* and *Cyprus* are shown as the largest ones, decorated with vignettes of castles and other buildings. The map is full of historical and geographical details, as well as information taken from source materials such as the Bible, Pliny, Jerome, Isidore as well as folk traditions.

The following are English translations of some of the descriptions as they appear in the Ebstorf map.¹¹² The reference numbers are those shown on the detail map Fig. 70a.

1. *Mount Ararat*
2. *Noah's Ark*
3. *Armenia, stretches from Capadocia to the Caspian.*
4. *This is the region Armenia, named after Armena [or Armenius], a companion of Jason. The area lies between the Taurus and the Caucasus and extends from Capadocia to the Caspian Sea.*¹¹³
5. *City of Parthau in Armenia.*
6. *The tomb of Saint Bartholomew [one of the Apostles who brought Christianity to Armenia].*
7. *City of Melitena [Malatia].*
8. *Artaxata [Artashat] capital city of Armenia.*
9. *The Araxis, a river in Armenia [Arax], rises from the same mountain as Euphrates and Tigris. Its name comes from the word "rapacitas" [wildness, rampancy]. When Alexander wanted to cross the river, he built a bridge, but the river tore it down with its enormous currents.*
10. *Alexander's bridge over Araxis.*
11. *The city of Edessa [Urfa]. This city of Edessa was created by Nimrod [a biblical king, great grandson of Noah], the son of Cush, after he had left Babylon. The city is also called Annare after Anna, who reigned here.*
12. *City Carrae [Carrha], founded by the Parthians beyond Edessa. The Siaton rises in the Cerauni Mountains [in antiquity this name applied to Taurus and Caucasus Ranges] and flows into the sea.*
13. *City of Caesaria.*

¹¹² These very same texts appear in Gervase of Tilbury's *Otia Imperialia. Recreation for an Emperor*, Translated from Latin by S. E. Banks and J. W. Binns, Oxford, 2002.

¹¹³ Ibid. Book II, Ch. 3, pp. 182-3



Fig. 70a

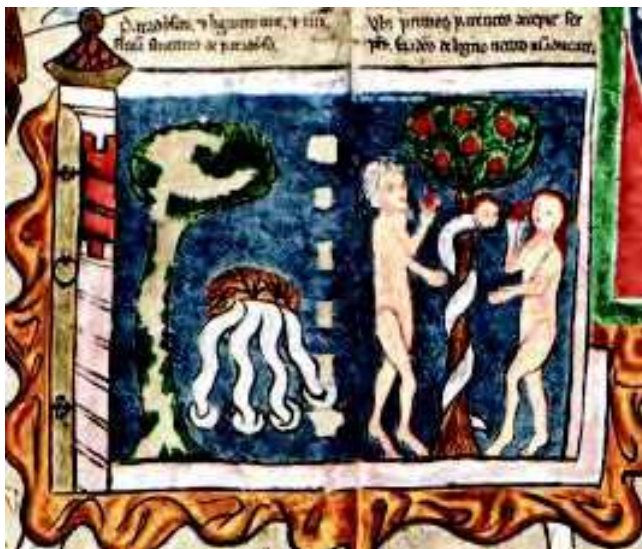


Fig. 70b – Depiction of Paradise in Ebstorf map



Fig. 70c – Depiction of Jerusalem in Ebstorf map.

14. *The realm of the Colchis [Abkhazia]. The experts locate the Golden Fleece here, therefore Jason came into this country and caused the war between Greece and Troy.*
15. *This land, which is called Albania, is inhabited by 26 tribes, which are famous for their dazzling white skin colour and come into the world with white hair. The area begins in the west of the Caspian Sea and extends along the coast to the northern ocean over many wild areas up to the Meotidi [Sea of Azov] swamps. The dogs of this region are so enormous and so wild that they can kill bulls and lions. They understand more than other animals. They answer to calls of their names, are loyal to their masters and defend his house to death. They accompany their owners gladly on booty raids and do not budge from their side, even if he is dead; they depend on human beings for their life. The female dogs are leashed in the forest so that wild tigers can mate with them, producing wild offspring, which is so strong and wild, that they can kill lions in fight. As these people use tigers, we use wolfs for the same purpose.¹¹⁴*
16. *Asia Minor is limited in the east by Capadocia and the sea surrounds its other sides, in the north is the sea of Pontus, in the west the Sea of Marmara, to the south the Egyptian sea. Asia Minor is divided into the following provinces: Bithynia, Phrygia, Galatia, Lydia, Caria, Pamphylia, Isauria, Lycia and Cilicia, Lyconia, Mygdenia and Niconia, also Baetica [?] and Pisidia. There lives the chameleon; a type of deadly worm, there also lives the Bonacus, a cattle-like animal. It aims its excrement like a projectile and can shoot it to the end of the field; which causes fiery burns on contact. With this defensive weapon the animal keeps its pursuers at bay.*
17. *The Caspian Sea.*
18. *Porte Caspie [Caspian gates, here the name is given to the Daryal Gorge or Pass, which is the only passage through the Caucasian Mountains leading to the Caspian and beyond. See footnote 33].*
19. *Mesopotamia.*
20. *This city is called Capadocia. The region bears the same name too. Here the horses become pregnant from the wind, but do not live longer than three years.¹¹⁵*
21. *The Caucasus rises from the Chinese sea in the east and stretches north-westward, running almost to Europe in a curve. [In line with Orosius, the Caucasian Mountains is joined with the Alborz Range in northern Iran, which through Afghanistan extends almost to the Himalayas. In the map all these are considered to be the continuations of Caucasus Range. See footnote 87]*

Many of the above legends appearing on the map are exact copies of the texts that exist in Gervase of Tilbury's manuscript *Otia Imperialia*, dated 1211.

Reproduction of Ebstorf Map published by Prof. Dr. H. Kugler, Germany, 2004.

For the complete map see p. 164

¹¹⁴ Ibid. Book II, Ch. 5, pp. 230-1

¹¹⁵ Ibid. Book II, Ch. 5, pp. 230-1



Fig. 70

9 – MATTHEW PARIS

Matthew Paris (c.1200-1259) was a monk in the important Benedictine Abbey of St Albans, north of London, where from 1235 until his death he was the chronicler. In the course of his work he produced historical chronicles and maps. His most important work is *Chronica Majora*, a history of the world of which a few copies containing illustrations and sets of maps have reached us. This is one of the most important historical documents prepared in England during the Middle Ages. In addition to being an account of history, the *Chronica Majora* describes life in thirteenth-century England, including local scandals, natural catastrophes, daily life, political intrigues and occurrences and above all, the authors own opinion and criticism about politicians, the king and their actions. These manuscripts date from the last years of Matthew's life.

The *Chronica Majora* also includes a set of maps, which consist of the map of England and Scotland, an Itinerary map (road map) leading from England to Sicily or Apulia – the two embarkation ports for pilgrimage to the Holy Land, as well as a map of the Holy Land.¹¹⁶ Two of the surviving copies also include a map of the World. The surviving manuscripts kept in the British Library and the Corpus Christi Colleges of Oxford and Cambridge include most of these maps. In these books the itinerary map is followed by the map of the Holy Land, which is provided to supply the prospective pilgrim with some information about his destination. Up to this time world maps were included mostly in general encyclopaedic works such as the *Liber Floridus*, *Commentarium in Apocalipsin*, *Etymologiae*, *Liber locorum*, *De Natura Rerum* and others, but here they form part of a book on historical chronicles.

During Paris's time Saint Albans, due to its proximity to London, was the most important religious centre in England, with many visitors from distant lands. Matthew himself did not travel outside Europe and for his maps of the world and Palestine he used information and descriptions gleaned from pilgrims who had been to the Holy Land and other parts of the world, warriors who had participated in the crusades, as well as using information available in other existing texts and maps, particularly the large wall map of Waltham Abbey in Essex (now lost).

In *Chronica Majora* there is a section listing names of the visitors to St. Albans Abbey between the years 1220 and 1259, as recorded by Roger of Wandover and Matthew Paris. Two of the 29 entries refer to Armenian visitors. In 1228 the Armenian bishop Antichenus visited

the Monastery of St. Albans and told the monks of the stories of the Wondering Jew and Joseph Cartaphilus.¹¹⁷ Fig. 71 shows the margin of the book where the text relates to Joseph and Armenia. Joseph is shown in the margin below the text with the figure of Christ carrying the cross. The miniature is from MS 016 in Cambridge, f. 70v.

In 1252 a group of Armenians visited St. Albans and provided the abbots with information about Armenia and Palestine. This information was reflected in the legends of some of the maps of The Holy Land prepared by Matthew Paris.¹¹⁸ Regarding the 1252 visit, Matthew furthermore notes in his text:

*At this time some Armenians came to St. Albans. . . . The pale faces of these men, with their long beards and their austere life-style, bore witness to their sanctity and the rigour of their discipline.*¹¹⁹

Matthew's maps are beautifully executed and full of various vignettes as well as historical facts and descriptive legends. His world map is limited to Europe, the coastline of Africa, Asia Minor and the Holy Land but, much like his other works, is not drawn to a fixed scale. The region of The Middle East lacks any real detail here, with the resultant omission of Armenia and other regions in the Caucasus. Two copies of this work have survived.

The itinerary maps are strip maps of the route between England, Apulia and Sicily, the two embarkation ports for travelling to the Holy Land. They were intended for English pilgrims to Jerusalem and therefore fall outside the scope of the present work. Only maps of the Holy Land, which extend to the Caucasus will be discussed here.

From the existing maps of the Holy Land drawn by Paris, the example kept in Oxford is the older and less picturesque. Its vignettes are limited to the fortress towns and buildings, while his other maps of the Holy Land include many more decorative drawings and vignettes of cities and fortresses etc., all accompanied by descriptive legends regarding the history of each location. In the following pages three later copies of his map of Palestine are reproduced and discussed.

In keeping with medieval religious cartographic convention, Matthew Paris's world and Palestine maps are oriented with east at the top. However, due to the irregular scale of these works, Armenia appears in close

¹¹⁶ Apulia is the Italian region of Puglia, which is the heel of the boot, being the southernmost region of mainland Italy.

¹¹⁷ Matthew Paris - *Mattei Parisiensis, Monachi Sancti Albanum, Chronica Majora*, Edited by Luard, Henry Richard in 7 volumes, London, Rolls Series, 1872-1880, Vol. 3, p.161

¹¹⁸ Ibid. Vol. 5, p.340-1.

¹¹⁹ Lewis Suzanne, *The art of Matthew of Paris*, Cambridge, 1987. p. 302.

proximity to the Holy Land and to its northeast, as opposed to far to its north. His maps of Palestine show the area beginning from the Caucasus Mountains in the north and east, to Alexandria and Cairo in the south. Because of the uneven scaling, the Crusader city of Acre is spreads over a large portion of the map area, while the region lying between the Holy Land and Caucasus barely occupies a quarter of a page. Cities are shown out of proportion, complete with city walls, gates and other building vignettes, while the distances between the various provinces are severely compressed and out of proportion.

The area covered by the maps of the Holy Land starts from the area south of the Caucasus Mountains. During the making of these maps Albania had already ceased to exist, but Georgia and Armenia were established Christian kingdoms. Notwithstanding the above, the mapmaker has chosen the Caucasus Range, Armenia, Mount Ararat and Noah's Ark to be shown in his maps of the Holy Land, to the exclusion of other countries of the region.

These maps by Matthew have more artistic and historic value and should be considered as encyclopaedic guides

rather than being intended for cartographic use. They are double page maps containing some historical and biblical information as well as figures of animals and events. These manuscripts and maps probably date from 1252-3, since the city of Acre, which was built in the early 1250's, features prominently on them. The exception to this is the Oxford copy, which is an earlier and plainer version of the maps depicted here.

Looking at these maps one can notice how different they are from their contemporaries. Leaving aside the map of England and Scotland, the rest can be considered as a travellers' guide to the Holy Land. The world map shows the positions of the Holy Land in respect to Europe; the strip map is the road map for travelling from England to south Italy and the map of the Holy Land is a local area map. In comparison with present-day tourist maps the first can be considered as the general map of Europe and the Middle East, the second a road map from England to Italy and the third, a regional and more detailed map of the Holy Land combined with a tourist guide of the area.

In the following sections three of Matthew Paris's maps of the Holy Land are depicted and discussed.



Fig. 71

Fig. 71 – This drawing is from the margins of the *Chronica Majora* MS.16 kept in Corpus Christi College of Cambridge. It shows Christ carrying his cross, while the Wandering Jew, Joseph Cartaphilia looks on and refuses to assist. The last line of the text above the Cross, refers to the Wandering Jew as being Joseph who lived in Armenia.

Note the words spoken by the two figures, which are enclosed in a frame, similar to speech bubbles in comic books of today.

Fig. 72 – This is only one half of the map of Palestine by Matthew Paris, taken from one of the copies of his *Chronica Majora* kept in Cambridge. Jerusalem and the southern area are shown on the other half of this map, not reproduced here. The writing on this map is Norman French. The map seems to be purpose drawn, as it utilises many of the texts from the book in its legends and can be considered as more of a visual encyclopaedia and guide for the pilgrim than an accurate navigational tool.

Here Noah's Ark is shown perched on top of the double-peaked mountain inside *Ermenie* (Armenia), which cannot be anything but Mount Ararat. The inscription above the mountain at the top of the page proclaims:

Towards these regions, that is to say, to the north, twenty days distant from Jerusalem is Armenia, which is Christian, where Noah's Ark perched after the flood and still rests there in the wild mountain. No one can approach the Ark on account of the desert and vermin and it is well known that this land extends to India.

The mountain is shown inhabited with three serpents, purportedly guarding the Ark. As per the accepted practice, the word *India* refers to distant lands, rather than the country of India.

To the left of Armenia, in the corner of the map there is an area separated by an arching mountain range. The inscription therein reads:

The enclosure of the Caspian Mountain. Here dwell the Jews whom God locked up at the request of King Alexander, who will go forth in the Day of the Judgment and will massacre all manner of peoples. They are enclosed by high and great mountains [Caucasian Mountains] and cannot get out.

In other copies of the same map, the people enclosed by the wall are named as the tribes of Gog and Magog (see Fig. 74). The above information seems to be based directly on the accounts given by the Armenian visitors to St. Albans in 1252, as reported in the text of the *Chronica Majora*.

The largest area shown on the map is allocated to the walled Crusader city - *La cite de Acre* (city of Acre), occupying almost half the page, followed by *Damascus* at the top right of the map. Jerusalem is on the southern half (not shown here). The Crusaders used Acre as their main base, hence its importance for the Christian west and its relative prominence on the map. A further link between Armenia and Acre is that the settlement, then called Ptolamais, was conquered by the Armenian king Tigranes the Second (140-55 BCE) and known as The Great, in 83 BCE. In the map, the city of Acre contains vignettes of temples, buildings, towers and city gates, together with an account of the founding of the city.

Altogether no more than twenty-eight geographical toponyms are shown on the map, including *Antiochia*, *Damas*, *La Vile de Acre*, *Nazareth*, *Bethleem*, *Terra Egypti*, *Terra Soldani Babilonie* (Land of the Sultan of Babylon), *Kaire* and *Alexandria*.

Matthew Paris, *Chronica Majora*. Copy dated c. 1252.
Corpus Christi College, Cambridge. MS 026, f. 3v.
Size 32.8x36.2 cm excluding foldout tab.

Fig. 73 – This is another copy of the *Chronica Majora* kept in Cambridge, which incorporates a slightly less elaborate map. Regrettably a considerable part of the page is missing. The depictions are almost the same as those on Fig. 72, but the legends are slightly different. Mount Ararat is shown on top of the page, with Noah's Ark perched on its peaks. However, as the small top foldout tab of the maps is also absent, the legend is incomplete and from Noah's Ark, *[Ar]cha [No]e*, only four letters remain. The description below the mountain reads *Montes Armenie altissimi* (the highest mountains of Armenia). The Ark is shown with a cruciform window. Two serpents on the mountain slopes are guarding the access to the Ark.

Here the southern half of the map is also reproduced, which shows the provinces of Palestine and Egypt. Palestine is dominated by the walled city of *Ierusalem*, which merits much detailed description. Many of the coastal and inland cities and provinces are also shown. These include the cities of *Nazareth* (at the very top), *Bethlehem*, *Askelon*, and *Jericho*. The *Nile* is also shown with a vignette of a large crocodile.

There is the usual oversized depiction of the city of Acre with some internal building and wall details, only part of which has been preserved.

Matthew Paris, *Chronica Majora*. Copy dating from c. 1253.
Corpus Christi College, Cambridge. MS 016, f. 3v-4r.
Size 24.4 x 36.2 cm, full page.

See page 170-171 for the map

Et par ce douz les gus par
 la pover le roi Alisandre
 Au thronne devant le un
 de luis. Et fume gaudie
 occise de seue car
 il plest a deu. Les
 murs sur haut
 eduf.



Quand on est en une Riches...
 edentat. Riches fuz de or e d'argen. par...
 cerie. De chame Bugles. muss e...
Former un mar d'Alissim...
 a luy seient a luy...
Pur ce heent fone la...

Die manoe...
 Ci meit l'ueuz de la...
 Ri est sur de hautz...

pacinne.

La cite de la
 nove mure...



la riv...
 la riv...
 la riv...

la porte
 de...
 de...

C'est burg est en habitee
 eue le plus de engleis

LA CI
TE DE
 le chastelet de...

la...
 de...
 de...

la...
 de...
 de...

Fig. 73

Ceste cite est loig vers hierusalem

Qui m'aiter les neis lignees ke li rois Alisandre euclor. Gog e agogor. De ci vuidier cele cite...

Vers ceste parties co est a sauveurs neurs boure de ierusalem a vint mees est armenie ki est crestiene. Vlar che nos est kuncore sure. la memoire Joseph careaphata

ki uie u ho merca nre seigneur A crucifier Ananie ki baptiza soit poiz le baptiza.



Albanus VINCAS... Mre dame de hierusalem... C'est dit hierusalem...

He consistantur opm m'etores q' d'it... t'pl machomen... m'euru d'm... m'el roit... coluerd.

Tute ceste terre ki gnt est e riche est en la seigneurie des sarrasins. E entres les autres Saphar. paissantz meint li ueuz de la mundinne. co est a sau li suerins de haurz assis. ki portent les cureus e ocient celui d'it il cumandement de haurz suerement. E cele obediencie co dient les sauvera.

He li procul usur borea maner ueus de moure.

He balundant cameli bubali multi q' d'it... m'it'ores m' orientales... e occidentales d'isme. Antel.



La tour adudite

La porte pardens le cydon de dolice



Le ametre Seir nicholaf u ho entreve les moitz

Armoqia dom... Ceste cite... li est de que renimee est...



le chastele le roide d'ere.

VILLO DE ACRE

l'ospital de mans. cur...

Ceste espace sest en... vaur deuers le... moitche auant he... m'unte us bibe... Antioche. C... que ia au la... m'arime nimee... m'ee citez e v... chasteul auat... m' la meillur... se sur ki esta... lee g'rus. Ep... d'ere. l. o. z. ydon.



La maison del hospital seir joha

Doni m'it'et ecce... se lazari q' s'et... bella... pam... bu... li...

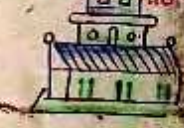
La tour de prisanz



Ceste vile vaur a sun seigneur chescun an cinquie mille iure d'argent.

Ceste cite ki ore est apelee Acre:... ia apelee cholonaida. Ele est espe... rance e refu as tur crestiens ki... la terre seinte nre e remendanz... puy les suans kiele a de la mer ki... li uent de tute enrope e de tutes... is les lien la mer s'it e crestien es...

la tour de l'ent...



Le temple.

la cite de la r'ie d'ama... Le chemin de...

Fig. 74



ceste cite of les pur-
 tendances d'auc ches
 cum iur au seigneur
 de la uile eine ceuz
 luves de estingit.
 fu fait a
 de curia

Ceste cite parties ki ore sunt en la subieccion
 des Sarraz furent iadis tutes crestienes par la poi-
 ceun seint Johan euuangeliste e des autres aposto-
 les deus. Ayant puis par l'entuschement ayabu-
 mes ki nule honestete ne enseigne ne reddur d'ira-
 mais dehees charnelles e ke plest au cors est ia tute
 corrupce e pasture au diable au...

Ceste cite est apelee cite seince e cite de pmissum. kay nre seigni nat
 qui e morte susri pur tute le mund restorer ke pdu
 fu. De ceste cite en furent rois dauid e salomon e
 d'atre que voi ancien ke deus tant. Ceste cite fist
 deus les ginz iur e miracles e precha e les apos-
 les apela. Pur ce est ele la plus digne cite ki soit.



Ceste cite ki ad nun ierusalem
 est la plus digne cite ki soit
 car dit ierlm on une de pos-
 la susri e mour. C'az le mur
 lu du...
 C'est le chemin
 d'atre de Cezeres en
 l'abode par la beverie



Ceste cite est apelee cite seince e cite de pmissum. kay nre seigni nat
 qui e morte susri pur tute le mund restorer ke pdu
 fu. De ceste cite en furent rois dauid e salomon e
 d'atre que voi ancien ke deus tant. Ceste cite fist
 deus les ginz iur e miracles e precha e les apos-
 les apela. Pur ce est ele la plus digne cite ki soit.

Ceste cite ki est a destre co est a sauer deus le fu lu autrite
 apelee ki est la cite paruo du mund embidee nure de mde e
 ayanteeine lu est echiopie. Egypte. barbarie. bugie e tute la
 le myanumielu ki nure cuprent de esplace de cite uel...
 occideye kar lunge est a co sen a desmesure. nure e zone
 sel geuz zmales. sarrazus sanz leie for e peis. Enunt
 chaudes o destempcees. C'az la gent facidout au pais. C'az
 hui memee gent v li solanz les passe deu forz p au par
 il sunt usler e nouz e laidez. par qu il n'admet en bouz
 termes de uir e travaillent en lur gaudagez de nure
 deslent sunt les uir al autres. e lur uiruf. C'az mediet
 batillereuses neme p cheualerie mais p dave...
 e p poisonementz e fu grezeis. e seient pegos. C'az
 ses cume laueracees a deceiuro chascun autre. C'az
 fist d'auve parat for des delices de cest mund. Poi une
 kar la cite ne puet idur nure ne si. C'az...
 v de mer v de e de duce kar la m est loiz. C'az
 est une esse v ho se baigie. fer une poi 7 poi n'admet
 espices nure viuent e de charz des bestes ki la sunt
 bugles. d'ameus muls e asues nure a plente. C'az
 plus nolent. cheudachent les iumentes ke il apela
 les. ke le cheudus mastes. Soie un uir. e de saie se uel
 e malement sunt l'berger. Cheures une nure e bukeshat ki pesser al m...
 Berbiz un poi e vels. Marchanz sunt de az e peres pauses

Fig. 74 – The third map of the Holy Land is from another Matthew Paris' manuscripts which contains *Historia Anglorum*. This map also appears in the last chapter of *Chronica Majora*, kept in the British Library. For safety and protection the maps of this manuscript have all been removed and are bound in special Perspex covers. This is a beautifully painted and decorated map of the Holy Land taken from the set, which is adorned with the same colours as the map of Fig. 72, but as expected from manuscript copies, the vignettes, legends and other texts vary slightly.

The maps of this copy are also copiously illustrated and beautifully coloured. However, despite the inclusion of descriptive legends on Armenia and the Ark, the map of the Holy Land, unlike other such works, does not show the figure of Noah's Ark perched on Mount Ararat. There is a short legend on the top centre of the left page, almost at the edge of the vellum sheet and just below the fold of the tab attached to the map (not shown here), which reads:

En Armenia est la archa noe. (Noah's Ark is in Armenia.)

Below it the legend in red ink in the top middle of the page translates:

Towards these regions, that is to say, to the north, twenty days from Jerusalem, is Armenia, which is Christian, where Noah's Ark is, which still exists. There dwell Joseph Cartaphilus, who saw where our Lord was led to be crucified; Ananias, who baptised St. Paul, baptised him.

In the left of the same page we see the wall built by Alexander, separating the Biblical unruly tribes of Gog and Magog from the rest of the world.

The Crusader city of Acre is shown in much detail (and quite out of proportion), complete with walls, gates, beautifully executed drawings of building and temples. Above Acre at the top right of the same page is the city of *Damas*, surrounded by the two rivers of *Albana* and *Farfar*. On the opposite page the walled city is *Civitas Ierusalem* (city of Jerusalem), shown with the Holy Sepulchre and other temples.

The outlines and some details of the maps drawn on the back of the pages are also visible through the thin parchment. On the left page, just below the description of Armenia, we can see the name Poilla (Puglia or Apulia in English), the last destination shown in the itinerary map on the reverse. Behind the right page Matthew has painted the map of England and Scotland, the outlines of whose seas (green) and land can also be seen through the parchment.

In the southern half of the map, in the region of Palestine and Egypt many details and vignettes of towns and rivers are depicted. The river *Jordan* and *La Mar Morte* (The Dead Sea) appear at the top of the map. Towns shown from the top downward start with *Nazareth*, followed by *Bethleem*, *Le Kaire* (Cairo, straddling the river), *Siloe*, *Civitas Ierusalem* as a walled city containing the *Temple of Solomon* and the *Holy Sepulchre*. *Alexandria* is shown with the vignette of a tower, representing the famous lighthouse, the Pharos, albeit not on the shore, but inland. A number of coastal towns are shown, including *Jaffa* and *Askelon*, as well as vignettes of rowing and sailing boats in the sea.

Matthew Paris, *Chronica Majora*. Copy dating from 1254 or later.
British Library, London. MS Royal. 14.C.VII, ff. 4v-5.
Each page 24.5 x 34.5 cm.

For the map see previous pages



Fig. 75

10 – PSALTER MAP

Fig. 75/75a – Another medieval anonymous mappa mundi is this example from an English Psalter of Westminster Abbey, dated around 1265. It is a typical small-scale late medieval world map, containing much historical and religious information.

This seems to be a smaller version of the large medieval map(s), which had contained more extensive data relating to the same topics and elements. It appears as if all the information has been condensed and abridged in order to fit the small size of the map. The map has east at the top, which includes the depiction of Earthly Paradise with portraits of Adam and Eve and the four rivers of Paradise flowing out. Christ is standing above the globe, flanked by two incense-burning angels and holding a T-O shaped globe in his left hand. This confirms that the church must by then have accepted the spherical shape of the earth. On another map in the same manuscript Christ's head appears above the globe, while his feet are protruding from underneath and hands are shown holding the globe from both sides, symbolising the globe of the earth as the body of Christ.

The map is in the form of Christian T-O format, but has evolved from its simple form and like the Hereford *mappa mundi* has become a source of religious information and knowledge. Although at the time that this map was produced there was sufficient cartographical information to enable the mapmakers to draw a relatively correct map of Europe, the maker of this particular map has chosen to adhere to the Christian religious topography and thus, religious tradition has overruled acquired scientific wisdom. The Mediterranean is shown as a green coloured sea in the rough shape of

the letter "T", extending north (left) towards the river Tanais and south, towards the upward curving river Nile.

The world is shown surrounded by the all-encompassing ocean and the twelve winds. Fantastic and mythical creatures, purported to inhabit distant lands, appear in the lower right-hand section, beyond the southern land-mass. One of them is the fast running man with a single large foot, the Skiapod; the other is a man with two huge ears, called the Panotian, who in cold weather used his ears as a body wrap. There is also the man with no head, whose eyes and mouth are located on his chest, named the Blemmye. At top right of the map the Red Sea is depicted in red and shown with the parting across it, where Moses and the people of Israel are said to have crossed.

Jerusalem is at the centre of the map and of the world. To its left, Mount Ararat is shown, denoted with a twin peaked mountain having *Arca Noe* (Noah's Ark) in the shape of a crescent perched on it. These are located at the upper left part of the map, opposite the gate, presumably the Caspian Gate, allowing passage from Armenian Highlands into the lands to the north of the Caucasus Mountains. The mountains themselves are shown in the shape of a semicircle encompassing the Caspian Sea (the green inlet, which is connected to the surrounding ocean), which, according to Biblical tradition, also encloses the unruly Gog and Magog tribes. Next to the Ark one can see the legend *Arm-eni-a* in red. The map contains the names of many countries and cities as well as an abundance of other information. See Fig. 75a for details of the region of Armenia and their toponyms. These are:

1. *Armenia*
2. *Arca Noe*
3. *Fl. Arax*
4. *Fl. Eufrates*
5. *Fl. Tigris*
6. *Asia Minor*
7. *Jerusalem*
8. *Hircania*
9. *Albania Superior*
10. *Amazones*
11. The Caspian Sea
12. The Caucasus Gates, or the Daryal Gorge (Pass), the only gateway to the northern regions. See footnote 33.
13. *Albania inferior*
14. Caucasus Mountains, which according to Orosius extend from West Caspia to India and beyond. See footnote 87.

Book of Psalms, 1265 CE.
British Library, London. Add. MS 28681, f. 9.
Sheet size 10 x 15 cm. Map diameter 9 cm.

For the complete map see page 175

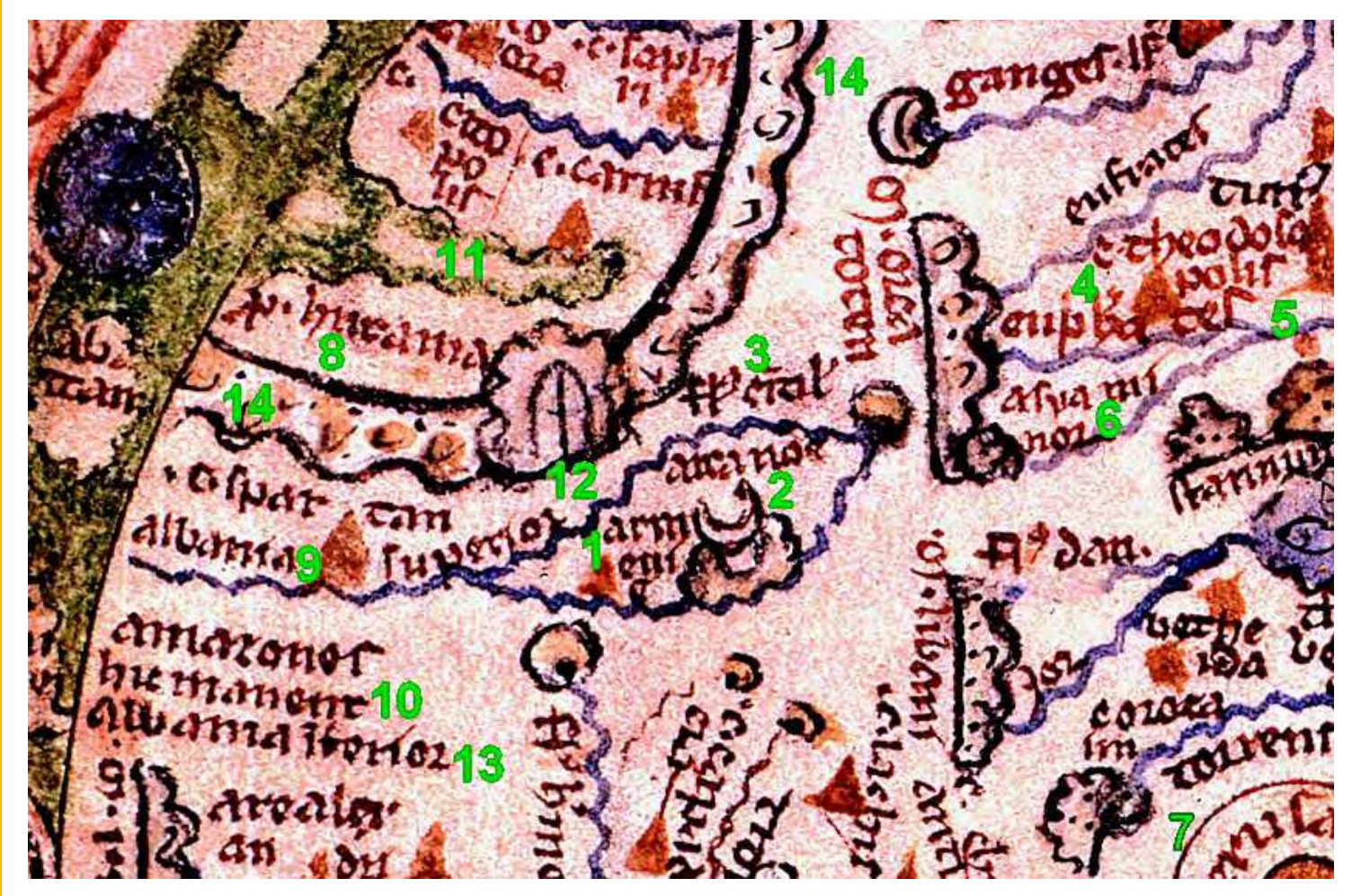


Fig. 75a

11 – SYRIAC MAP of BAR-HEBRAEUS

The most famous Syriac writer, physician, poet, historian and compiler was Gregorius Youhanna Bar-Ebroyo or Bar-Hebraeus, also known as Abu al-Faraj. Born in *Melitena* (Malatia), Armenia in 1226, he died in Marāgha (Persia) in 1286. His father Aharon was a converted Jew and when his son was born, he was baptised and given the name Youhanna (John). When ordained he chose the name Grigorius. According to one source he is said to have had an Armenian mother and according to one of his own published poems, his name refers to the river Euphrates (Ebroyo).¹²⁰ Other sources state that his mother was an Arab.¹²¹ He studied medicine, languages and sciences in Antioch and became master of Syriac, Arabic, Persian and Armenian languages. He himself is sometimes incorrectly described as a converted Jew like his father, in spite of the fact that he was born and baptised a Christian. According to Afram Barsaum and Herman Teule, his origin was not Jewish at all.¹²²

In 1246 he was ordained as Bishop and in 1253 was appointed the Bishop of the city of Aleppo and his reputation was so widespread that in 1264 the Patriarch Mar-Ignatius appointed him as the Maphrian (Catholicos) of Jacobites in the East. His consecration ceremony took place in the Armenian Cilician kingdom capital Sis, presided over by the Armenian king Hetoum I and his

retinue of Knights and Bishops, as well as dignitaries from other faiths.¹²³ All Christians and Moslems revered him and his later entry into Baghdad was greeted with unsurpassed welcome.¹²⁴

In 1286, during his sojourn in the city of Tabriz in the Persian province of Azerbaijan, he translated his book “The political history of the world” into Arabic. After this he fell ill with a fever and as per his own premonition, died in the nearby city of Marāgha in 1286. His remains were later transferred to the Monastery of Mar-Matay (Matthew) in Iraq.

He is the author of many works and anthologies, notably the *Ketabha dhe-Bhabhata* (Book of the Pupils of the Eye) a work on logic, *Hewath Hekmatha* (Cream of Wisdom) on Aristotelian logic, *Sullarat Haunanaya* (Ascent of the Mind) a treatise on astronomy and cosmology, *Mukhtasar Tarikh Al-Duwal* (Compendious History of the Dynasties), *Menareth Qudhshe* (Light of the Sanctuary) as well as various poems and other books. The *Menareth Qudhshe* (Light of the Sanctuary) also contains a map of the inhabited part (one quarter) of the world discussed hereafter. His most important achievement was the collecting, collating and organising of the works of his predecessors.

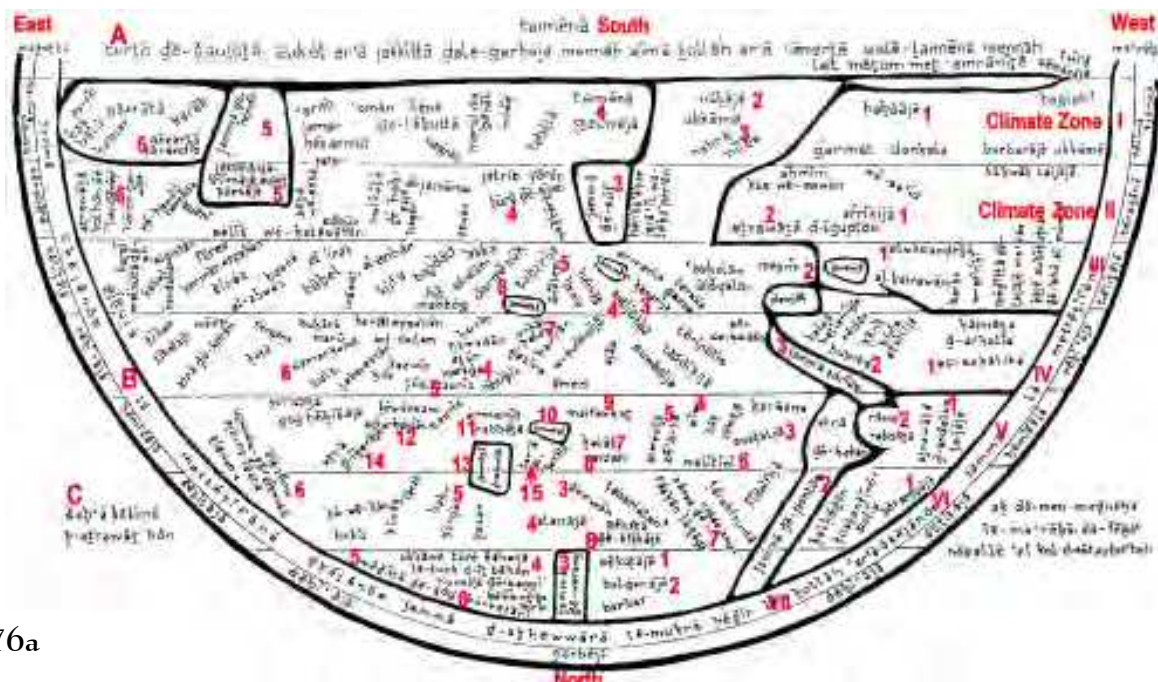


Fig. 76a

¹²⁰ Lane, George - An Account of Gregory Bar Hebraeus Abu al-Faraj and His Relations with the Mongols of Persia, Hugoye: Journal of Syriac Studies, Vol. 2, No. 2, July 1999. Electronic Journal of Beth Mardutho: The Syriac Computing Institute. <http://syrc.com.cua.edu/Hugoye/Vol2No2/HV2N2GLane.html>.

¹²¹ Wallis Budge, Sir Ernest A., *The Chronology of Bar-Hebraeus*, Original text and translation in two volumes, Oxford, 1932, pp. i-iii.

¹²² See 'Ebn al-'Ebrī', H.G.B. Teule, *Encyclopedia Iranica*, vol. 7, London, 1997.

¹²³ Ter-Minassiantz, Erwand, *Die armenische Kirche und ihrer beziehungen zu den syriachen Kirchen bis zum Ende des 13. Jahrhunderts*, nach den armenischen und syrischen Quellen. Leipzig, 1904, p. 135 and Wright, William - *A Short History of Syriac Literature* - Amsterdam, 1966, pp. 265-281.

¹²⁴ Ibid Ter-Minassiantz.

Fig. 76/76a – This map is inserted in Bar-Hebraeus’s manuscript *Menareth Qudhshe* (Light of the Sanctuary) of which three copies are in existence (two in Paris and one in Berlin). Another replica of the Paris map appears in Bar-Ali’s 15th century *Lexicon*, now in Cambridge University Library.

The map limits itself to the northern part of the eastern hemisphere and the legend on top, above the Equator proclaims:

to the north of it [line] lie the inhabitable lands.

The map is oriented with south at the top, in line with Islamic world maps and it is very similar in presentation and outline to the maps of contemporary Persian geographer al-Qazwīnī (See Chapter 3, Fig. 50). This is a zonal map, where the emphasis is on the climatic zones, shown by faint, straight red lines, while the prominent shorelines, the seas and lakes, are outlined in a heavier red. Nevertheless, the majority of the map area is featureless and filled with plain toponyms.

All the toponyms of provinces and cities mentioned inside the brackets of this paragraph can also be seen on the transliterated copy of the map shown in Fig. 76a.¹²⁵ In this map the author has included all the cities that played important roles in his life, such as *Melitini* or *Malatia* (Zone V, #6) where he was born, *Antioch* (Zone III, #4) where he studied, *Aleppo* (*Halab* in Zone IV, #7) where he was Bishop, *Sis*, capital of Cilician Kingdom of Armenia (Zone V, #4) where he was consecrated as Maphrian, *Tabriz* (Zone IV, #5) where he worked later in his life and finally *Marāgha* (Zone IV, #4) where he worked and eventually died. The map also includes the legends of Greater and Lesser Armenias (Zone V, #11 and 5), *Khlat*, the capital of Greater Armenia (Zone 5, #7), *Māiferkāt*¹²⁶ or *Tigranakert*, one of the capitals of pre-Christian Armenia (Zone V, #9) and *Lake Van* (Zone V, #10). Between *Van* (Zone V, #10), the *Caucasus* (Zone VI, #8) and land of the *Alans* (Zone VI, #4), to the west of the *Caspian Sea* (Zone V, #13) there is the *Iron Gate* (Zone V, #15), which is, in most likelihood, the *Derbend* or *Caspian Gates*, since it connects the southern region with that of the *Alans* in the north, through a passage located west of the *Caspian* and east of the *Caucasian Mountains*.¹²⁷

Some of the rubrics and important toponyms mentioned in the redrawn map of Fig. 76a with transliterated legends are translated and listed below.

- A** – *Equator, which is the warm land, to the north of it lie the inhabitable lands and to the south there is no habitable land.*
B – *Impassable Ocean*
C – *The seven climates* (inverted)

Some of the important toponyms in the Syriac language legends inside the seven horizontal Climatic Zones starting from the top translate into the following:

<u>Zone I</u>	<u>Zone III</u>	<u>Zone V</u>	<u>Zone VI</u>	<u>Zone VII</u>
1. Ethiopia	1. Alexandria	1. Spain	1. France	1. Scythians
2. Nubia	2. Egypt	2. Rome	2. Black sea	2. Bulgarians
3. River Nile	3. Caesaria	3. Anatolia	3. Shirwan	3. Baltic/Northern Sea
4. Sudan	4. Anthiochia	4. Sis [Capital of Cilician Armenia, now called Kozan]	4. Land of the Alans	4. Turkish mountains, where live the Huns, who are barbarians.
5. Indian Sea	5. Jerusalem	5. Lesser Armenia	5. Gorgan [Caspian] Sea	5. Land of Gog and Magog
6. Island of Ceylon	6. Damascus	6. Melitini [Malatia]	6. Land of the Huns and Turks who are Mongols	6. Boristhenes [the River Dnepr].
<u>Zone II</u>	<u>Zone IV</u>			
1. Africa	1. Slavs	7. Khlat [Capital of Greater Armenia]	7. Amazones, who cut their breasts.	
2. Land of Egypt	2. Cyprus	8. Arzan	8. The Caucasus Mountains	
3. Red Sea	3. Adriatic Sea	9. Maiferkat [Tigranakert]		
4. Mount Sinai	4. Marāgha [where the author died]	10. Lake Van		
5. Persian Gulf	5. Tabriz	11. Greater Armenia		
6. Land of the Indians	6. Samarkand	12. Azerbaijan		
	7. Halab [Aleppo]	13. Caspian Sea		
		14. Iberia		
		15. Gates of Iron		

¹²⁵ Miller, Konrad, *Mappae Arabicae*, 1926-1931, Stuttgart. Vol. 5.

¹²⁶ *Maiferkat* as well as *Miāfārghin* are the names given to the old Armenian capital of Tigranakert, near Silvan.

¹²⁷ The Alans were an Iranian race, who lived north of the Caucasian Mountains.

In this Latin transliteration of the map many more city and province names can be readily recognized, owing to their resemblance to their modern appellation.

From the list of the toponyms it is obvious that the author must have had close affinity with Armenia and Armenian towns and places, further emphasised by his consecration as the “Maphrian of the East” in the Armenian Cathedral of Sis, the Cilician kingdom of Armenia, in the presence of Armenian king Hetoum and his retinue. It must also be noted that during this time the Syriac and Armenian churches had very close ties. No toponym related to other South Caucasian regions can be seen on the map.

Bar-Ali, *Lexicon*. Copy of map dating from the fourteenth century.
Cambridge University Library, MS ADD 2008, f. 29a.
Diameter approximately 21 cm.



Fig. 76

12 – HEREFORD MAPPA MUNDI

The last and the most important surviving large-scale medieval world map is the Hereford *mappa mundi*, also modelled on the Orosian T-O type world maps. Its dimensions are 165x135cm, with the circular area of the map at 132 cm diameter. Because of its size, in addition to the geographical features it comfortably accommodates a wealth of information taken from biblical texts and mythological sources as well as depictions of animals and creatures living in distant lands.

This is the only surviving large and complete map of the world from the medieval period, and remains in a good order of preservation.

The author has signed his name on the map as Richard of Holdingham and Lafford (now Haldingham and Sleaford).¹²⁸ He was also known as Richard of Battle (in Latin – Richard de Bello), served in Hereford Cathedral and died sometime during 1326 bequeathing his map to the Cathedral, where it still is kept.¹²⁹

Fig. 77/77a - This is a very large, late medieval manuscript map of the world drawn on vellum and dating from around 1280-89, probably made in Lincoln and since 1290 kept in Hereford Cathedral, England. It is the most detailed and the best-preserved map of this era, during which time many similarly designed and prepared T-O maps were produced, but only a few have survived.

This is in essence, a very elaborately decorated religious map, oriented to the east, with Jerusalem at its centre and the Garden of Eden at the top. Above the circle, at the head of the map, there is a depiction of the Day of Judgement. As in all T-O maps, the Mediterranean Sea and the rivers Nile and Don divide the world into the three continents of Asia, Africa and Europe, with the Mediterranean Sea as the main feature of the map. This sea is filled with various islands, each one inscribed with its most noteworthy feature. Asia is at the top (east) with Europe at the bottom left and Africa at the bottom right. The ocean surrounds the whole world, with the Red Sea coloured red. All cities and towns are shown with vignettes of buildings, towers and castles, the exception being Jerusalem, whose vignette is the city plan, very similar to the plan of Jerusalem shown in the Armenian language maps of Fig. 65 and 67.

In addition to the geographical features there are drawings and vignettes illustrating the natural world and legends describing historical events occurring in the relevant provinces. There are also imaginary inhabitants of the distant lands, men with one large foot under which they shelter and can run very fast, or creatures with huge ears which they use as body wraps and many others. All of these are taken from biblical and mythological sources, also prevalent in the Ebstorf and Psalter maps (Fig. 70 and 75). The area of India is replete with curious animals and plants and is described as having over 5000 cities. The Hereford *mappa mundi* incorporates almost all features present in previously made world maps, making it the most comprehensive surviving such work. The sources of the information contained on the map are the writings of Solinus, Pliny the Elder, Orosius, Isidore, St Jerome, Capella and others.

In the detail of the *mappa mundi* (Fig. 77a) Armenia can be seen marked with “1”, located at the centre right. Noah’s Ark is shown marked “4” complete with the description *Noah’s Ark sitting on mountains of Armenia*. Below it one can see *Armenia Inferior* marked “3” written in red and situated to the right of the Ark. *Armenia superior* appears between the Ark and the horizontal tower, marked “2”.

Albania (20) has been positioned near the Surrounding ocean, at the northern edge of the map, west of the Caspian Sea (14), where it connects to the ocean. The actual area of Albania is shown as *Hircania* (16).

It is worthy to note that during the time that this map was drawn, there was information available in England regarding the already established kingdom of Georgia. John de Plano¹³⁰ and William de Rubruck¹³¹ wrote about it in their voyage reports dating 1246 and 1253 respectively. Yet in this area the map still shows *Colchis* [Abkhazia] (18), home of the *Golden Fleece* (19), indicated with a vignette of flattened sheepskin.

¹²⁸ Haldingham and Sleaford are both located in Lincolnshire

¹²⁹ The authorship of the map is disputed by P. D. A. Harvey and S. D. Westrem, who claim that the two Richards were separate individuals and assumptions of authorship are based on hypothetical and circumstantial evidence. See Westrem, Scott D., *The Hereford map: a transcription and translation of the legends with commentary*. Turnhout, Belgium, 2001, pp. xxi-xxiii.

¹³⁰ Hakluyt, Richard, Editor – *The Principal Navigations, Voyages, Traffiques and Discoveries of the English Nation* – in 12 volumes, James MacLehouse, Glasgow, 1903. Vol. 1 p. 166.

¹³¹ Ibid. Vol. 1, p. 230.

The toponyms and legends appearing on the part of the reproduced detail of the map are the following:

1. *Armenia*. Ancient Armenia was bounded on the west by the Euphrates, on the south by the Taurus Mountains and in the north by Iberia.
2. *Armenia superior* or Greater Armenia (here the name is misspelled)
3. *Armenia inferior* or Lesser Armenia
4. *Archa noe sedit in montibus armenie* (Noah's Ark came to rest on the mountains of Armenia). This legend is placed to the left of the vignette of the Ark.
5. *Thiberia* or Iberia, one of the countries in the south of the Caucasian Mountains .
6. *Samosata civitas*, city of Samosata.
7. *Montes Parcoatras* or the Lesser Caucasus. The river Euphrates is shown to have its source here.
8. *Montes Acrocerauni* or Daghestan mountains, a range that divides Iberia from Armenia.¹³²
9. *Mons Taurus*, the Taurus Range, which are the western limit of Armenian region.
10. *Mesopotamia*, the land between the two rivers Tigris and Euphrates.
11. *Tigris fluvius*, the river Tigris, which is shown also as having its source in the Lesser Caucasus range. According to Solinus, both Tigris and Euphrates have their source in these mountains.
12. *Euxinum mare*, the Black Sea.
13. *Porte Caspiae* (the Caspian gates). *The road built through the Caspian Gates is eight miles long, but its width is such that it can hardly be passed by a cart.* Although the name refers to the pass between the Caucasian Mountains and Derbend, its distance from the Caspian Sea and description refer to the Daryal Gorge or Pass in the Caucasian Mountains . See also footnote 33.
14. *Mare Caspium* .
15. *Caspium civitas*. City of Caspium.
16. *Hircania*
17. *Hircani hic habitant*. Hircanians live here.
18. *Colcorum provincia*. The province of Colchis.
19. *The Golden Fleece for which Jason came*.
20. *The Albanians have bright yellow eyes and see better by night.* (Out of the detail map area).

Hereford Cathedral, England. Dating from c. 1290 CE.

Map diameter 132 cm.

Wooden frame mount measures 137x162 cm.

For the complete map see page 184.

¹³² This is located in the Caucasian Mountains , which itself is often named Cerauni Mountains. See Orosius, Paulus - *Seven books of history against the Pagans* – Translated by Irving W. Raymond. Records of Civilizations” series, New York, 1936, p.38.



Fig. 77a

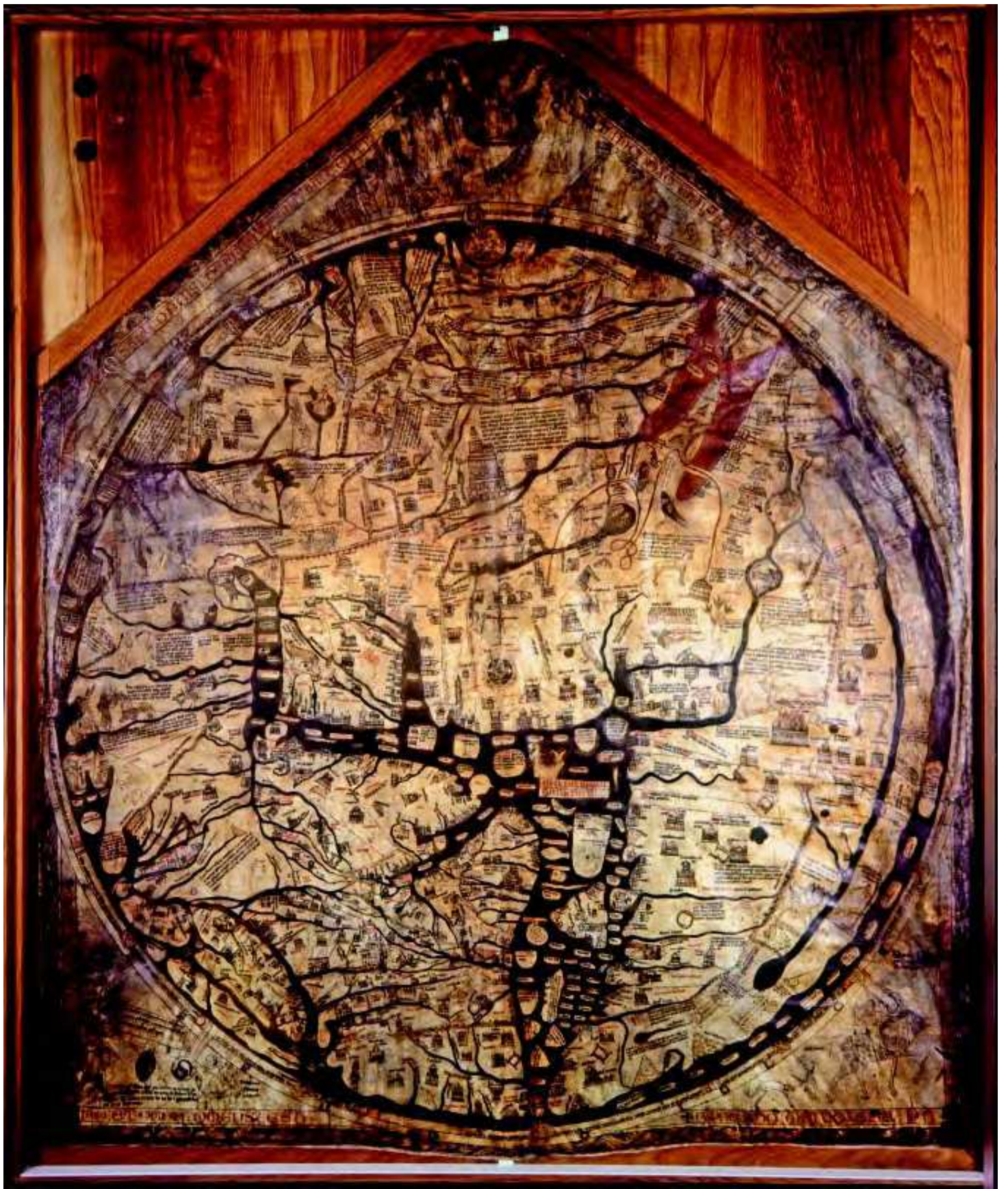


Fig. 77

13 – MAPS OF PIETRO VESCONTE

Pietro Vesconte, who flourished in the early fourteenth century, was chiefly known for his Atlases of Sea Charts or Portolan Atlases, of which a few copies have survived and which are probably the oldest surviving portolans. He is also known by his diminutive “Perrino”, which he used during his earlier career.¹³³ He was one of the first mapmakers to date his maps and indeed the corners of some of his charts are adorned with a self-portrait, depicted drawing a chart.

Vesconte drew some of the first relatively accurate maps of Christian Europe, which are included in his portolan chart atlases. Outside the portolan or Sea Charts tradition, his most important maps are those prepared for the manuscript of Marino Sanudo’s book, written during the years of 1306 to 1321, inciting a new crusade by Christian Europe against the Muslims. The manuscript is entitled *Liber secretorum fidelum Crucis, sive de Recuperatio Terrae Sanctae* (Secret book of the loyalty to the Cross or the Recapture of the Holy Lands). Sanudo is said to have presented his book to the Pope John XXII in the year 1321. The maps and charts of the manuscript probably also date from the year 1321.

This is a large propaganda volume, written on vellum and includes many miniatures and vignettes of the

Crusaders and their battles with the Saracens. One of the paintings on folio 7r is that of the Crusader forces meeting King Leo of Armenia (Cilician Armenia) and the prisoners of the Armenian king. See Fig. 78 (from the British Library copy). The king himself is shown surrounded by symbols of various rulers neighbouring Cilicia, namely the Lion in the north (Mongols), the Wolf in the west (the Turks), the Serpent in the south and the Leopard in the east.

The world map included in this volume was made by Vesconte, who used his knowledge of sea charts in the crafting of this work. On this copy he even drew rosettes, which are standard feature in the portolan sea charts but are scarcely used outside the sea chart tradition. The region of the Mediterranean, whose accurate portolan charts already existed, is depicted in true detail but the rest of the world is shown in very approximate form and shape.

Vesconte’s most important sea chart atlases were produced in 1313, 1318, 1321 and 1322 and are kept in Bibliothèque National de France, Ref. Rés Ge DD687, Bibliothèque de Lyon under Ref. Ms.175, Vatican Library Ref. Pal. Lat. 1362A and 2972, Venice Museo Correr Ref. Port. 28, also Vienna and Zürich.

Fig. 79/79a – This World Map of Vesconte was, prepared for Sanudo’s manuscript *Liber secretorum fidelum Crucis*.¹³⁴ The map dates possibly from 1321, the year the manuscript was completed.

It is obvious that for drawing the maps of the Mediterranean, the author has used his knowledge of the portolan charts, explaining why this area is reproduced very accurately with little possible improvements until the eighteenth century. The Caspian Sea, although correctly depicted as an inland lake, still does not have its true shape. Vesconte’s world maps prepared for Sanudo are circular, oriented with east at the top. The only other telltale features which divulge the portolan heritage of the map are the sixteen sets of rhumb lines, emanating from the edges of the map.¹³⁵

The general features are typical of medieval cartography. Rivers and seas are green and mountain ranges are shown as undulating brown chains of triangular shapes. Important cities and castles are shown, some in red. The map however cannot be considered as a T-O type but akin to the Ptolemaic model of the world, having been rotated 90 degrees. Notwithstanding its raison d’être (urging the European rulers to organise a new crusade), it stands bereft of any religious content. On this map we do not see mythical and Biblical creatures or other Christian features such as the Earthly Paradise or the rivers of Paradise and here, for the first time in medieval world maps the Red Sea is not coloured red and does not stand out. In fact the map has rather more Islamic religious content, such as *Arabia* (no. 38 on detail map of Fig.79a), the Islamic religious centers of Mecca (39, *Mecha*) and Baghdad (40, *Baldac*), all shown red.

Northern Europe is shown as a densely populated area with many legends of towns and provinces. *Norwegia* is a peninsula and *Anglia*, *Scotia* and *Hybernia* are shown as islands in the North Sea. Only the countries of *Francia*, *Germania* and *Yspania* are indicated by red ink. The river *Tanay* (Tanais = Don) is shown flowing from a northern mountain range into the Sea of Azov. The shape of *Mar Pontus* (The Black Sea) is almost correct.

¹³³ Harley & Woodward, op. cit., 1987, Vol. 1, pp. 406-407.

¹³⁴ The manuscript contains other maps and portolan charts.

¹³⁵ Portolan charts are usually depicted containing sixteen sets of rhumb lines.

In this and the following paragraphs the numbers in brackets refer to those added in blue to the detail map of Fig. 79a of Middle East and Western Asia.

The flat-bottomed circular sea enveloped by mountains is named *Mare Caspiu* (1 - the Caspian Sea). Situated between this and the Black Sea (*Mare Pontus*, 2) there is another arrow-like lake, which bears the legend “mare” only (3). This should in fact be the Caspian Sea, since to its south the legends read *Caspia* (20) and *Yrcania* (21), two provinces located south of the Caspian Sea. It follows that the true identity of the flat-bottomed sea above (1) should have been the Sea of Aral, situated in Western Central Asia, with *Bactria* (19) shown on its shores.

The unnamed mountain range running between the Black Sea (2) and the arrow-like Caspian Sea (3), can only be the Caucasus Mountain range (15). At its intersection with the second mountain range the vignette of a large gate reads *Porte Ferree* (16 - Iron Gates).¹³⁶ For the first time in medieval western maps this passage, also known as the Caspian Gates, has been shown in its correct position, namely on the western shore of the Caspian Sea.

To the left of the red inscription *Asia* (25) there is a vertically standing rectangle resting on the mountain range, bearing the label *Archa Noe* (18- Noah’s Ark). The eastern end of this mountain range is called *Montes Caspii* (14 - Caspian Mountains) while towards its western extremity, it is identified as *Taurisius* or Taurus (17) mountain range. Below *Asia* and the legend of *Taurisius* (17) there is the legend of *Armenia Magna* (22). *Colcia* (24 – Colchis or Abkhazia) is located north of *Armenia Magna* (22). For the first time in western medieval cartography, the region of *Georgia* (23) appears entitled as such. The region of *Albania* (44), which should have been near Georgia, is shifted to the upper left corner of the map, near the surrounding ocean, which is outside the area covered by the detail map.

To the west of Armenia (22), south of the Black Sea (3) the region is divided into various strips of land starting at the top with *Persida* (26), *Asia Minor* (27) and followed by *Bitia* (28 Bithynia), *Calcedonia* (29), *Licaonia* (30), *Galatia*, *Lidia* and *Frigia minor* (Phrygia). *Cilicia* (31) lies to the south of this region, over the mountains and between the two vignettes of castles. Further south, at the foot of the *Taurus* mountain range lies *Capadocia* (32).

Africa occupies most of the southern hemisphere and does bear the basic geographical features such as the Gulf of Guinea and the Cape despite its inaccurate shape. The Nile (10) has its source in unspecified mountains and flows northwards to the Mediterranean flowing through *Egyptus* (33), past numerous castellated towns located on its shores. Other provinces of Africa are *Libie* (34), *Pentapolis* (35), *Sarmatia* (36) and *Siirtes Maiores* (43). In southwest Asia the following toponyms stand out; *Arabia* (38, red), *Mecha* (Mecca, 39, red), *Baldac* (Baghdad, 40, red), *Pa[r]thia* (41) and *India Magna* (42). *Albania* (44) has been pushed towards the edge of the map, near the Northern Ocean. The toponyms in red are those deemed important by the mapmaker.

The text surrounding the map provides explanatory comments about various provinces and their features. At the top right of the map, lines two to five and twelve to fourteen from the top describe the peoples, features and location of Armenia. Lines two to five roughly translate as:

Armenia was named after Armenus, who came to Colchis and Armenia with Jason. It is located between the Caucasus and Taurus Mountains, Capadocia and the Caspian Sea. Armenia is in two parts Upper [Greater] and Lower [Lesser].

Lines twelve to fourteen roughly translate as:

*Kingdom of Armenia has the Kingdom of Khawrazm at its east. On the north it has the Kingdom of Nisia whose largest city is Sarai.*¹³⁷

Two lines further down there is a description regarding Georgia beginning with:

Kingdom of Georgia has a large white mountain at its east, and to its south lies Armenia. It then continues with further elucidations.

On the left of the map line 27 is the description of Albania, which loosely translates:

... its people are white and to its east is the Caspian Sea, which is connected to the Northern Ocean. It extends to the Meotides Marshes [Sea of Azov] and deserts.

The map sees the first mention of the name “Georgia”, though there is a reference to Colchis (or Abkhazia), indicating that the latter may not yet have been entirely annexed with the kingdom of Georgia.

The following toponyms are indicated on the detail map of Fig. 79a.

¹³⁶ This name was given to the Caspian Gates by the Persians, Turks, Armenians and others.

¹³⁷ This refers to the Golden Horde and their capital city of Sarai Berke, which, during the fourteenth century was at the peak of its power.

A - SEAS

1. *Mare Caspiu*
2. *Mare* – Caspian Sea
3. *Mare Pontus*
4. The Mediterranean
5. Aegean Sea
6. Persian Gulf
7. *Mare Rubrum* - Red Sea

B - RIVERS

8. *Tygris*
9. *Eufrates*
10. Nilus
11. Tanais
12. Danubius
13. *Indus*

C - MOUNTAINS ETC.

14. *Mons Caspii* – Continuation of the Taurus range.
15. Caucasus – not named
16. *Porte Ferree* – the Iron Gates
17. *Taurisius* – mentioned twice
18. *Archa Noe* – sitting on the western part of Caucasus mountains

D - PROVINCES & CITIES.

19. *Bactria*
20. *Caspia*
21. *Yrcania*
22. *Armenia Maior*
23. *Georgia* – for instance of this
24. *Colcia* – Colchis or Abkhazia
25. *Asia*
26. *Persida*
27. *Asia Minor*
28. *Bit[in]ja*
29. *Calcedonia*
30. *Liconia*
31. *Cilicia*
32. *Capadocia*
33. *Egyptus*
34. *Libia*
35. *Pentapolis*
36. *Sarmatia*
37. *Ethiopia*
38. *Arabia* – red
39. *Mecha* – Mecca, red
40. *Baldac* – Baghdad, red
41. *Pa[r]thia*
42. *India Magna*
43. *Siirtes Maiores*
44. *Albania* – at the edge of the map

Sanudo, *Liber secretorum fidelum Crucis*,
1321.
British Library, London. Add MS 27376*,
ff. 187v-188r.
Size 50 x 34.5 cm (double page)



Fig. 79a

14 – RANULF HIGDEN

The English chronicle tradition was at its peak with Matthew Paris and continued further in the hands of Ranulf Higden (c. 1282-1363). Yet another English Benedictine monk and chronicler, who worked during the fourteenth century in Warburg Abbey, Chester, where he was a monk from 1299 until his death in 1363. His historical volume *Polychronicon* was written in three versions in the years 1327, 1340 and the final version in 1360. The manuscript, over a 100 copies of which survive today, was copied and distributed to various monasteries and colleges in Oxford and Cambridge.

Ranulf was a prolific reader and his *Polychronicon* is based on the writings of Sallust, Solinus, Pliny, Isidore and others preceding him. The manuscript was originally in Latin and was translated into English in seven books by John Trevisa in the 1380's and printed in 1480 and 1482.¹³⁸ It was revised and reprinted in 1527 by Peter Treveris. It consist of seven parts as follows:

Book I. Description of all the world.

Book II. Making of our Father to the beginning of the Temple of Jews.

Book III. The Transmycracyon to the coming of Christ.

Books IV-VII. History of the Saxons, Danes and the Normans to 1357.

In Book One he discourses upon the size of the earth, the continents, the sea and the surrounding ocean. He describes Armenia, Iberia, Albania, the Caucasus Mountains and the Caspian Sea.

Regarding Iberia (Hiberia) Higden writes:

*Hiberia is a region under the hills of Taurus, which is joined with Armenia towards the east.*¹³⁹ ["Under" can also mean "to the north"].

About Albania the text says:

*Albania has at its east part the Caspian and descents towards the Meotides Paludes. That region has people with hair painted yellow, who see better by night than by day. The dogs of the region are so savage and fierce that they down bulls and kill lions.*¹⁴⁰

Regarding Armenia, he says:

Armenia, [is] otherwise called Araratia, took its name from Armenius, a knight of Jason

*who occupied and inhabited the region of Armenia located between the Taurus and Caucasus and from the Caspian Sea to Capadocia. There stands the hill of Ararat, upon which after the Flood Noah's ship rested and there are two Armenias, Greater and Lesser.*¹⁴¹

These descriptions are very similar to the writings of Orosius, Pliny and others, all sources used by various medieval historians and cartographers such as Isidore, Beatus, Gervase of Tilbury and Richard de Bello (Figures 28, 70 and 77). The manuscript includes vignettes of important cities such as Jerusalem and Rome, providing descriptions for some of the monuments therein.

Higden's maps are based on the traditional spiritual genre of cartography. They were prepared during an era that had already seen the accurate and detailed portolan and sea charts of the Mediterranean coasts. These were widely utilised by most travellers and sailors, to such an extent that even the Italian religious zealot Opicino de Canistris (1296 - c. 1354) was appropriating them in his religious propaganda by superimposing faces of saints and others on the coastal outlines of the Mediterranean. Yet, despite these advances, Higden chose to adhere to the traditional spiritual model.

Twenty-one of Higden's surviving manuscripts contain maps of the world drawn in various forms and shapes. Some are circular, most are elongated oval, while some others have either pointed ends (mandorla type, almond shaped) or truncated at one end, though all are of the T-O family.¹⁴² The three maps shown here are of oval type, but the one in the British Library (under ref. Royal 14.C.XII, f. 9v) is almond shaped, with pointed ends and contains only toponyms, including that of Armenia, all floating inside the map, itself bereft of any geographical features. In preparing his maps Ranulf of Higden chose to disregard the newly available cartographic information and based his maps on the archaic and religious traditions of mapmaking, adding to them Christian scriptural content such as Jerusalem, Rome, the Red Sea and Terrestrial Paradise.

Three of Ranulf's maps are reproduced here, accompanied by descriptions of the notable features relating to each.

¹³⁸ Taylor, John, *Universal Chronicle of Ranulf Higden*, Oxford, 1966, p. 3.

¹³⁹ Higden, Ranulf – *Polychronicon* – translated by John Trevisa in 1387. Facsimile reproduction of the book printed in 1527. Edited by Churchill Babington, London, 1865, Book I, Chapter IX, pp. 142-146.

¹⁴⁰ Ibid.

¹⁴¹ Ibid.

¹⁴² Destombes, Marcel, *Mappemondes A.D. 1200-1500*, Amsterdam, 1964.

Fig. 80/80a – The largest map produced by Ranulf of Higden is the one shown here, from the copy of *Polychronicon* kept in the British Library. It is also known as the “Ramsey Abbey” map of Higden, where it is supposed to have been copied. The map is oval shape and dates from circa 1342. As per the accepted practice the orientation is east at the top. The map can be considered a T-O map, since it has all the attributes of this family of maps.

This is a relatively large map, containing some 346 toponyms and legends, and stands apart from the other maps attributed to Higden. There are 39 large towns, all shown with castellated vignettes, of which fourteen are in England and only four in all of Africa. Religious centers such as *Jerusalem*, *Rome* and *Compostella* are marked by with large cathedral-like sketches. There are twelve winds surrounding the earth and Earthly Paradise is shown at the top. The copier seems to have left the map incomplete, since Paradise does not contain either text or drawings, and there are only three rivers emerging from it, even these being incomplete. The provinces are separated by red lines and the few mountains that are shown are coloured green, the same as the seas. The Red Sea is shown in the traditional red, while the rest of the seas are green. In fact the copyist has only used these two colours throughout.

Armenia and its neighbouring provinces are shown in the enlarged map of Fig. 80a. The figures in brackets appearing in this paragraph refer to the figures in the detail map. *Archa Noe* (1 -Noah’s Ark), which is at the centre-left of the map, is shown with a legend stating that the *Ark rests on the mountains of Armenia* (2). Noah is depicted inside the Ark, shouldering an axe and accompanied by a ram, a lion and an elk. Below the mountain the legend reads *Capadocia* (5). Above the Ark, to its left there is the legend *Armenia* (3), underlined in red. Further down, below *Armenia* there is a green circle, representing the *Taurus* (4) Mountains. To the right (south) of *Armenia* there is an explanatory text on the name of Babylon. It attempts to clarify any confusion in readers’ minds regarding this name. It reads:

Babilonia is the region, Babilon is the town and Babel is the tower (6).

The city of Babylon appears next to the legend but the Tower of *Babel* (7) is drawn further to the right of the city. The two green rivers above the Ark are the Euphrates (8) and Tigris (9), with the legend *Mesopotamia* (10) appearing near Babylon. The city of *Damasc[us]* (11) is shown to the right of Armenia and the large vignette of a cathedral shown in red is the city of *Jerusalem* (12).

In *Africa* the *Nile* begins in southern *Egypt* and follows an undulating course to West Africa, where it disappears. The two *Pillars of Hercules* are shown at the western entrance of the Mediterranean Sea, in the inlet connecting it to the Ocean. Other towns and countries in Africa include *Alexandria*, with the *Pharos*, *Cirene*, *Egypt*, *Ethiopia*, *Libia* and others. Inside Europe *England* is drawn very large and out of proportion. It contains numerous vignettes of towns and is coloured red to emphasize its importance. The two large cities outside England are *Rome* and *Compostella*. The Mediterranean is shown with 22 islands of varying shapes and sizes, each with its own legend.

Higden, *Polychronicon*. C. 1342.
British Library, London. MS Royal 14 C IX,
ff. 1v-2.
Map Size 34 x 48 cm.



Fig. 80a

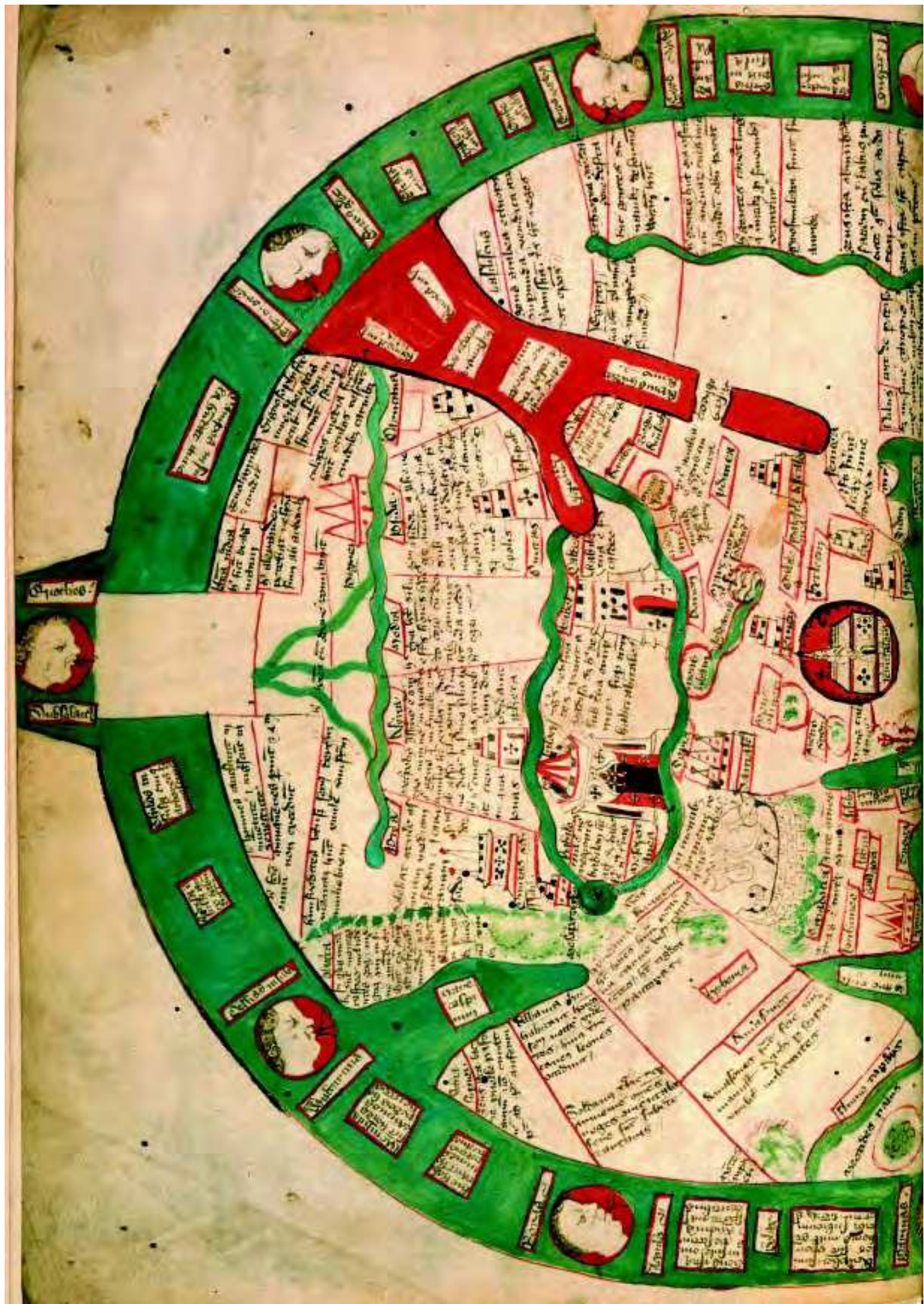


Fig. 80



Fig. 81/81a – The second world map by Higden depicted here is from the same manuscript as the previous work. It seems that as an afterthought, the copyist has decided to draw a smaller world map on the verso of the large map sheet and has done it in haste. This map is drawn in a rough hand and the colouring also seems to have been rushed, without much care and attention. It dates from around 1350.

The map is oriented with east at the top, where Paradise is depicted, this time with Adam and Eve eating the apple in front of the tree, though the frame of this sketch is not complete. This too is a T-O map with a large Mediterranean Sea dotted with ten islands, including the islands of *Gades* (in fact; city of Cadiz), *Sardinia*, *Cyprus*, *Rhodes* and *Crete*.

The enlarged section of the map (Fig. 81a) shows the area of the Middle East and Caucasus (for reference to figures in brackets see detail map). In the north east of the Mediterranean Sea, there are five finger-like protrusions, representing the provinces of western Asia Minor. Above (east of) them there are strips of provinces entitled, *Capadocia* (1), *Armenia* (2), *Mesopotamia* (3), *Euphrates* (4 - river, green) and *Babilonia* (5). The pear-shaped region next to *Capadocia* contains *Lidia* (6) and *Asia Minor* (7) and above them there are two back-to-back oval shapes, the *Montes Taurus* (8) and *Montes Caucasus* (9) mountain ranges. Other provinces around Armenia are *Hybernia* (10), *Hyrcania* (11) and *Assiria* (12).

In Africa the Arabian and Red Seas are coloured red. The Red Sea, which is one of the inlets of the Arabian Sea, shows the parting that allowed the children of Israel to cross. The river Nile is shown as a meandering red line, starting from the surrounding Ocean, traversing the length and breadth of Africa, eventually flowing into the Red Sea instead of the Mediterranean. Another branch from the Arabian Sea is the Persian Gulf, also in red, which extends towards *Assiria*, *Persida* (Persia) and *Oxiana*.

Higden, *Polychronicon*. C. 1342.
 British Library, London. MS Royal 14.C.IX, f. 2v.
 Map size 22 x 28.5 cm.

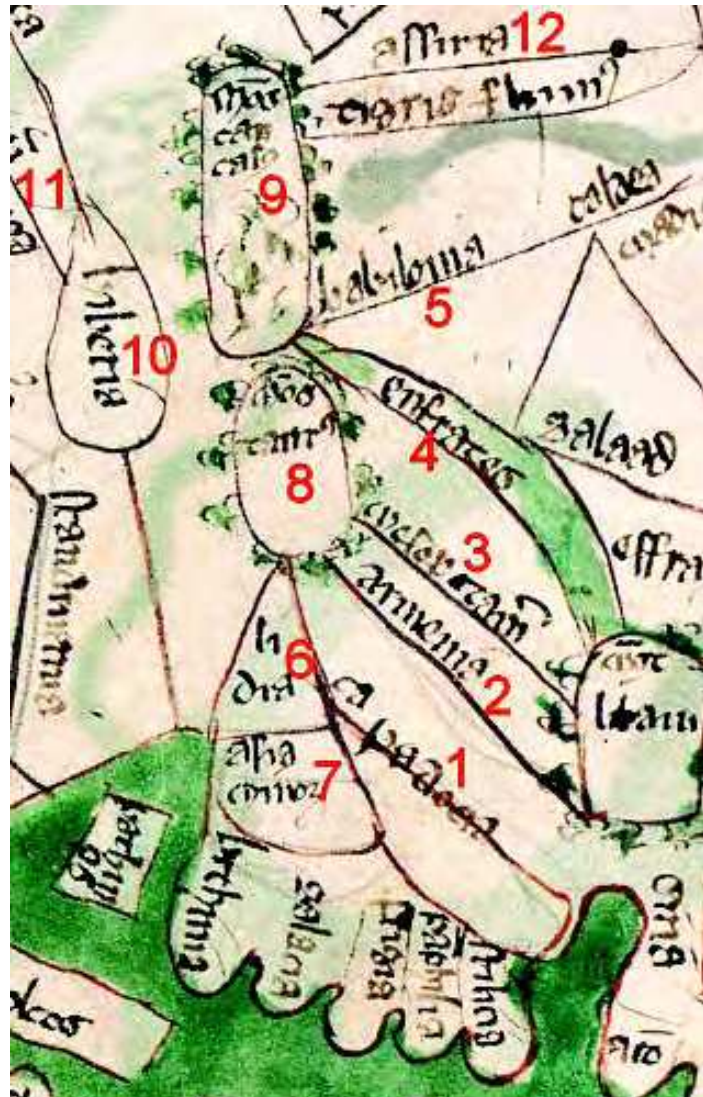


Fig. 81a

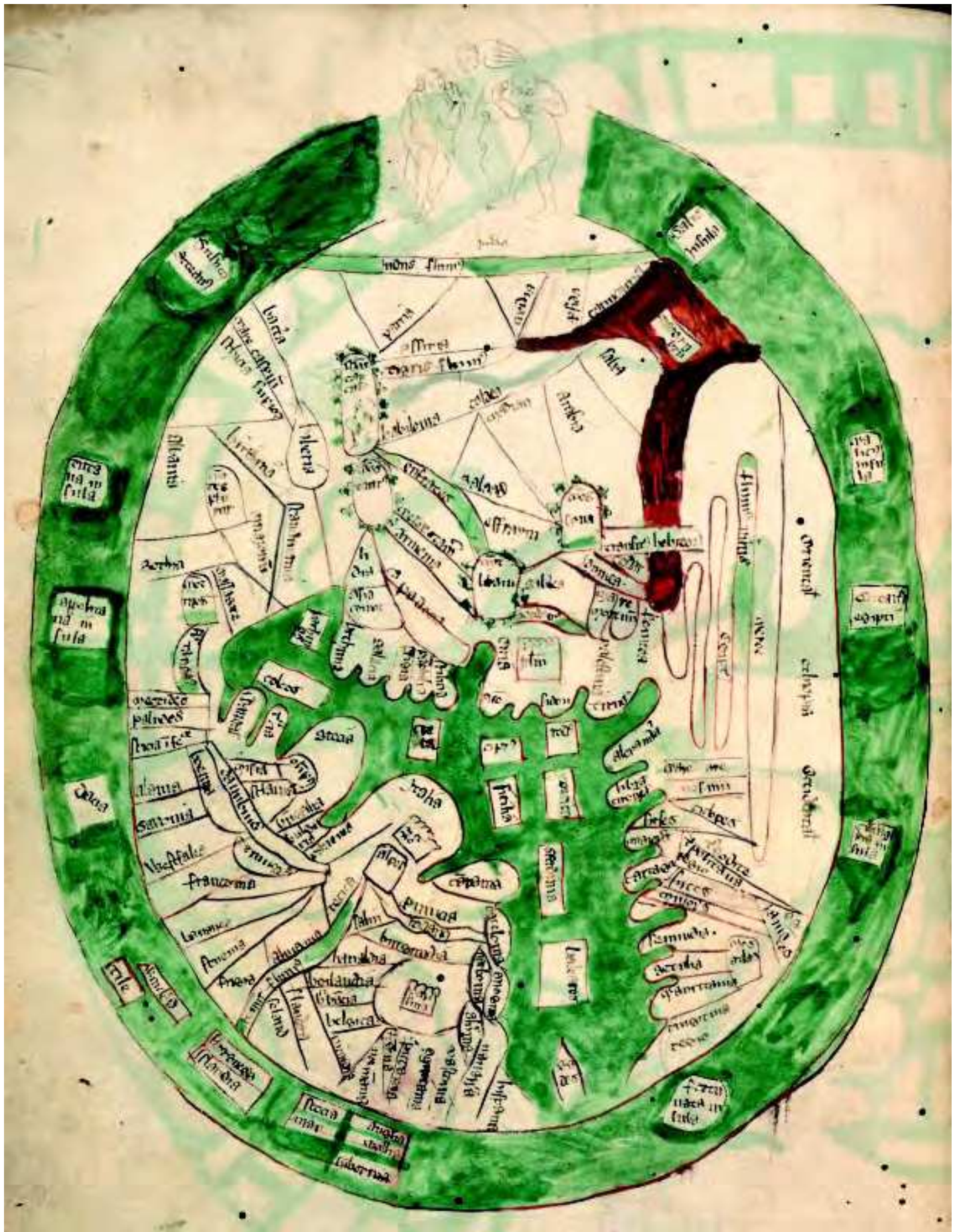


Fig. 81

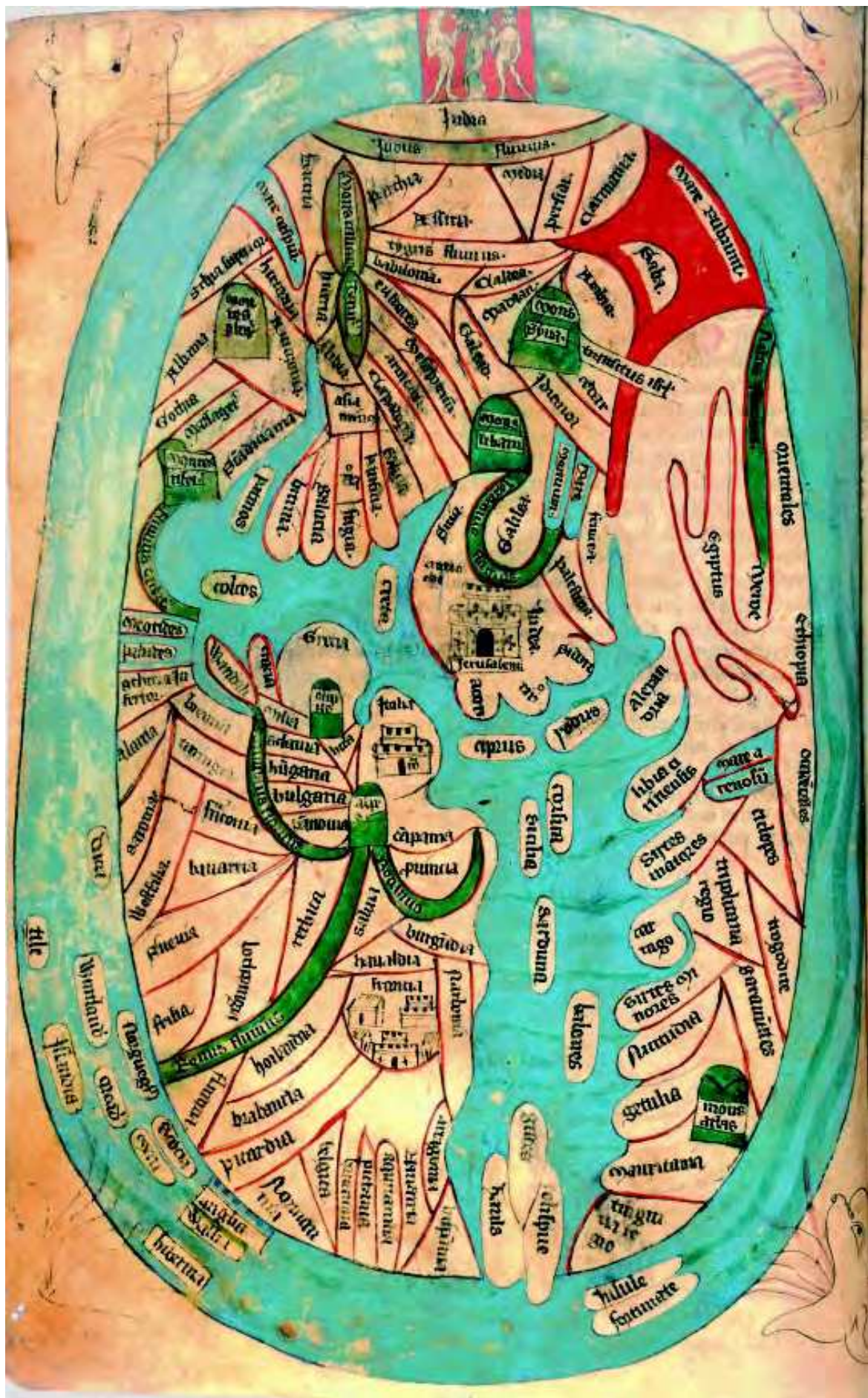


Fig. 82

Fig. 82 – The third map of the world by Ranulf of Higden is from another copy of the *Polychronicon* kept in the Bodleian Library of Oxford. This copy of the manuscript dates from the third quarter of the fourteenth century.

This map is in essence very similar to the map of Fig. 81, though more care and diligence has been exercised in its execution and it is a completed map. The main difference between the two maps seems to be their proportion and certain details missing from the former. Here *Jerusalem*, *Italy* and *France* are represented by vignettes of buildings and the Earthly Paradise includes the sketches of Adam, Eve the Serpent as well as the apple tree. In his use of colour, the copier has resorted to a more extensive palette, thus adding to its aesthetic value. The seas are blue, except the *Red Sea* and the *Persian Gulf* (red), the rivers are single red lines or green strips and the mountains are dark green domed masses.

Since this map is completed and fully coloured, its main features, while akin to those on the previous work, do differ in appearance (such as the mountains, here shown in green). In Asia we see *Mons Taurus* and *Caucasus* as two back-to-back leaves, the latter being the source of the rivers *Tigris* and *Eufrates*. There is another mountain named *Montes Plot(?)* shown near *Hircania*, between *Amazonia* and *Albania*, which, according to Miller is *Mons Ararat*, though the writing is unclear.¹⁴³ In two further copies (not reproduced here), these mountains are named as *Mons Hyperborei* (copy in Edinburgh) and the other as *Mons Armenie* (copy in Corpus Christi College, Oxford). The other two mountains in Asia are *Montes Rifei*, *Mons Syna* and *Mons Liban*, which is the source of the river *Jordanus*.¹⁴⁴

In Africa only *Mons Atlas* is shown. Here also, as in the previous map, the Nile is fed from the surrounding Ocean and goes through its meandering course. This copier, however, has avoided the error made by his counterpart and has correctly drawn the Nile flowing into the Mediterranean, between Alexandria and Libia. In Europe Mount *Olympus* is shown in *Greece* and the *Alps* are shown as the source of the rivers *Danubius*, *Renus* (Rhine) and *Rouanus* (Rhône), which are clearly visible, while the same features, although present in the previous map are not clearly visible. The Mediterranean is shown with the same twelve islands, but the island of *Gades* is shown between the two columns of Hercules standing in the inlet connecting the Mediterranean and the Ocean. The surrounding ocean contains multiple islands and in the northwest those include the islands of *Anglia*, *Wallia*, *Hybernia* and *Scocia* (England, Wales, Ireland and Scotland) as well as *Tile* and *Islandia*, both referring to the same island.

Armenia is shown as one of the strips adjacent to *Asia Minor* stretching from the *Taurus Mountains* to the north-east Mediterranean, flanked by *Cappadocia* and *Mesopotamia*, again similar to the previous map of Fig. 81. The extra features of this map are the four winds that are shown surrounding the oval earth. In most other respects the descriptions of the map of Fig. 81 also apply here.

Higden, *Polychronicon*. Copy dating from late fourteenth century.

Bodleian Library, Oxford. MS Tanner 170, f. 15v.

Size approx. 21.5 x 32.5 cm.

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¹⁴³ Miller K., *Die ältesten Weltkarten*, 1895. Vol. 3, pp. 101-2.

¹⁴⁴ Montes Rifei is the ancient Ripheimontes in Eastern Europe, here possibly the Carpathian Mountains.

CONCLUSION

Studying the maps prepared by eastern and western medieval cartographers and geographers and reading the accompanying texts and analyses, the following general conclusion can be reached.

In the medieval times, due to lack of border demarcations and the rule of force, few borders were fixed for long or could be even approximately determined, a task made more difficult by the lack of detailed and correct geographic and cartographic data. Consequently majority of the medieval maps lack lines marking borders and countries, instead, these are depicted by mentioning their names in the vicinity of the area they occupied. Therefore, these maps can hardly be regarded as purely geographic and cartographic works but do represent the historical geography of the era during or after which the map was made. The medieval mapmaker deemed it sufficient to mention the name of the country or region and place it on the map according to the principle of contiguity, a practice, which, for the twenty-first century cartographer possessing the latest and technologically advanced tools of the trade may be difficult to accept.

Based on the above we can state that countries south of the Caucasus, although being almost at the edge of the known world, do appear on most important medieval maps in one form or other. Armenia appears in almost all maps showing some sort of detail and in many cases both Greater and Lesser Armenia (Armenia Maior and

Minor) are depicted. Colchis and Iberia, the constituent parts of Georgia as well as [Caucasian] Albania, the predecessor of the Republic of Azerbaijan, appear in most maps, but they do so less frequently.

Perhaps more prominent place given to Armenia is due to the fact that it was the oldest and easternmost Christian nation, who proclaimed Christianity as the official religion of the land in 301 CE. This knowledge was further augmented by the commercial activities and ties created by the Armenian merchants, who were actively trading in Ravenna, Venice, Genoa and other ports. Armenia is also connected to the Christian west by the Biblical accounts of The Flood and Mount Ararat, where Noah's Ark came to rest. For the western religious mapmaker it was only natural to depict Mount Ararat and Noah's Ark, and place them in Armenia. The country became increasingly important for the Italian city-states during the heyday of the Cilician Kingdom of Armenia (eleventh to fourteenth centuries), whose rulers promoted trade and even granted trade monopolies to Genoese and Venetian merchants. They also cultivated close ties with the royal families of France, while assisting the Crusaders in their missions. Even when Armenia was overrun and ruled by foreign kings, the western mapmakers continued showing this country in their maps.

Countries south of the Caucasus can also be seen in the maps of Ptolemy, which are outside the scope of this volume. In maps attributed to Ptolemy, Colchis, Iberia,

Albania, Greater and Lesser Armenia feature prominently and even have demarcated borders, but one should bear in mind that these maps were made during the thirteenth to sixteenth centuries, based on the data provided by the second century texts of Ptolemy's *Geographia*, therefore these borders can hardly be regarded as true second century demarcations. In case of the *Tabula Peutingeriana* (originally a fourth century map) and the Armenian language *Ashkharhatsuytz* (from the fifth to seventh century), both include and describe Armenia, Albania, Colchis and Iberia, as well as the Persian province of Azerbaijan.

In Islamic cartography the regions and countries south of the Caucasus are represented somewhat differently. The Balkhi School chooses to show Armenia, [Caucasian] Albania and [Persian province of] Azerbaijan in its regional maps. The cities of present day Georgia are shown as being inside the territory of Albania and the neighbouring people on the northern and western borders of Albania and Armenia are shown to be the Alans.

The only Syriac map produced by Bar Hebraeus during the early thirteenth century, includes many toponyms related to Greater as well as Lesser Armenia, while from their neighbouring countries the Persian province of Azerbaijan is shown in the south and Lands of the Alans and Bulgars are mentioned in the north. There is no mention of Albania, which by then had already disappeared, nor Georgia, which had been established as an independent country.

When looking at the borders of the countries that today occupy the area south of the Caucasus, it is interesting to note the socio-political and border changes that have taken place. The detailed analysis of the countries of the region will show the following:

1. Georgia's constituent territories, whose predecessors were Colchis-Imeretia-Abkhazia, Kartli-Iberia and Mingrelia, existed since before our Common Era as well as the medieval times. During the eleventh to twelfth centuries the union of these territories created what we know today as the Republic of Georgia. The name Georgia appeared on the maps of the thirteenth century and **Georgia, with its current internationally recognized borders at the present occupies more or less the same territory, which it did in the medieval times.** Having said that, however, it must be mentioned that since the fall of the Soviet Union the two Georgian territories of Abkhazia (Colchis) and South Ossetia have unilaterally proclaimed independence and are striving to achieve it.

2. In the medieval times the territory of today's Republic of Azerbaijan was entitled [Caucasian] Albania, a Christian country, which disappeared during the ninth to tenth centuries and the territory was later divided into various provinces and Khanates of Daghestan, Derbend, Shirwān, Shamakhi, Talish etc. The name "Azerbaijan", which, for over two millennia had belonged to the North-western Iranian province across the river Arax, was given to this territory only in 1918, as a result of political scheming. **Today's Republic of Azerbaijan occupies most of the territory of Albania, as well as some additional neighbouring territories, which were populated by the indigenous Armenians.** One of these, the Armenian populated Autonomous Region of Nagorno Karabagh, has proclaimed independence based on the principle of Self-Determination, and since 1991 is de-facto functioning as an independent, albeit officially unrecognized state.

3. The geographical location of Armenia in the past has always been shown as being south of Georgia and Albania, extending across the Arax River south-westward, past Lake Van, as far as the Armenian Plateau or Highland extends (see page 19, penultimate paragraph). This is where the indigenous Armenians lived from a millennium BCE until 1915. Armenia lost its independence in the eleventh century, establishing the independent Cilician Kingdom of Armenia, which survived until the end of the fourteenth century. Since then, Western Armenia (the area to the east of Anatolia) was successively ruled by the Seljuks, Mongols and Ottomans, who in 1915 ethnically cleansed the territory of its indigenous population, the Armenians. During the early years of the Soviet rule, the communist leaders "generously" ceded parts of Armenian territory to her neighbours; Kars and Ardahan were given to Turkey and mostly Armenian populated Nakhijevan and Karabagh – to Soviet Azerbaijan, as well as putting mainly Armenian populated Javakhq under Georgian administration. **The result was an Armenia, which for millennia having occupied the whole of the Armenian Plateau, is now a small country wedged between Iran, Turkey, Georgia and Azerbaijan, occupying only about ten percent of the territory of historic Armenia.**

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BIBLIOGRAPHY

1. Abich, Hermann Wilhelm – *Über die geologische Natur des armenischen Hochlandes*. Dorpat, H. Laakmann, 1843, (in German). On the nature of the Armenian Plateau
2. Abrahamian, Prof. Ashot G. – *The works of Anania Shirakatzı, Ashkahrhatzuytz* – Matenadaran Publications, Yerevan, 1944 (in Armenian). Աբրահամյան, Պրոֆ. Ասոտ Գ. – *Անանիա Շիրակացու Մատենագրությունները – Աշխարհացոյց – Երեվան, Մատենադարանի Հրատարակչություն, 1944:*
3. Allen, W. E. D. – *A History of the Georgian People* – London, Routledge & Kegan Paul, 1971.
4. Anania Shirakatzı – *Compositions* – Yerevan, Sovetakan Grogh publication, 1979 (in Armenian). Անանիա Շիրակացի – *Մատենագրություն* – Երևան, Սովետական Գրող Հրատարակչություն, 1979:
4. Anania Shirakatzı – *Compositions* – Yerevan, Sovetakan Grogh publication, 1979 (in Armenian). Անանիա Շիրակացի, *Մատենագրություն*, բարձրագույնագույն, առաջաբանը և ծանոթագրությունները Ա. Գ. Աբրահամյանի և Գ. Բ. Պետրոսյանի: Երևան, Սովետական գրող, 1979:
5. Anderson, Andrew Runni – *Alexander's Gate, Gogand Magog, and the Inclosed Nations* – Cambridge, Mass., The Medieval Academy of America, 1932.
6. Aristotle – *Meteorologica* – With an English translation by H. D. P. Lee – Loeb Classical Library, Cambridge, Mass., Harvard University Press, 1987.
7. Bagrow, Leo – *History of Cartography* - Translated by R. A. Skelton, Cambridge, Mass., Harvard University Press, USA, 1964.
8. Bar Hebraeus, *The chronography of Gregory Abū'l Faraj, the son of Aaron, the Hebrew physician, commonly known as Bar Hebraeus; being the first part of his political history of the world*. Translated from the Syriac by Ernest A. Wallis Budge, London, Oxford University Press, 1932.
9. Barber, Peter – *The Map Book* – Edited by Peter Barber, London, Weidenfeld & Nicolson, 2005.
10. Barkhudariantz, Bishop Makar – *History of Aghuanq* – Etchmiadzin, 1902 (in Armenian). Բարխուդարյան, Մակար Եղիշկողոս – *Պատմություն Աղուանից* – Սբ. Էջմիածին, 1902:
11. Beazley, Raymond C. – *The Dawn of Modern Geography*, Volumes 1 to 3 – London, J. Murray, 1897.
12. Al-Birūnī – *Kitāb ul Tafhim ul avāil sināat al tanjim* – British Library MS, OIOC Or. 8349 (in Arabic).
13. Boase, T.S.R. – *The Cilician Kingdom of Armenia* – Edinburgh, Scottish Academic Press, 1978.
14. Chamchian, M. – *History of Armenia* – 3 volumes, Venice, Mchitarist Order, 1784 (in Armenian). Չամչյան, Մ. – *Պատմություն Հայոց* – 3 հատորով, Վենետիկ, Մխիթարյան Միաբանություն, 1784.
15. Chekin, Leonid S. – *Northern Eurasia in Medieval Cartography*. "Terrarum Orbis" series No.4 - Belgium, Brepols, 2006.
16. *Concise Armenian Encyclopaedia* – Vol. 1, Yerevan, 1990 (in Armenian). *Հայկական հանրագիտարան* – Հատոր 1, Հանրագիտարանի Գլխավոր Խմբագրություն, Երևան, 1990:
17. Cosmas Indicopleustes, *The Christian topography of Cosmas, an Egyptian monk*, translated from the Greek by J.W. McCrindle, London, Printed for the Hakluyt Society, 1897.
18. Destombes, Marcel, *Mappemondes, A.D. 1200-1500* – (Imago Muundi, supplement 4), Amsterdam, N. Israel, 1964. (in French).
19. *Dictionary of the Armenian Language* – Mkhitarist Monastery, Venice, vol. 2, 1769 (in Armenian). Բառարկի Հայկազգեան Լեզուի, Մխիթարյան Միաբանություն, Վենետիկ, Հատոր 2, 1769:
20. Donabedian, Patrick – *Armenians in Crimea during the era of the Genovese* – Roma Armenia, Catalogue of exhibition, Rome, curator Claude Mutafian, 1999.
21. Dunn, Ross E. – *The adventures of Ibn-Battuta* – University of California Press, 1986.
22. Eco, Umberto – *Baudolino* – London, Vintage Press, 2003.
23. Edson, Evelyn – *The Oldest World Maps: Classical sources of three eighth century Mappaemundi* – The Ancient World, Vol. XXIV, Part 2, Boston, 1993.
24. Edson, Evelyn – *Mapping time and space* – London, The British Library, 1997.
25. Edson, Evelyn and Savage-Smith Emily – *Medieval view of the Cosmos* – Oxford, Bodleian Library, 2004.
26. Edwards, A. S. G. – *Geography and Illustrations and Higden's Polychronicon* – Collected Papers from the Kresge Art Museum Medieval Symposium, East Lansing, Michigan State University Press, 1995.
27. *Encyclopaedia of Islam*, New Edition – Leiden/London, Brill/Luzac, Vol.1, 1960.
28. *Encyclopaedia of Islam*, New Edition – Leiden/London, Brill/Luzac, Vol.3, 1971.
29. *Encyclopaedia of Islam*, New Edition – Leiden/London, Brill/Luzac, Vol.5, 1980.
30. *Encyclopaedia of Islam*, New Edition – Leiden/London, Brill/Luzac, Vol.8, 1995.
31. Europalia 85 España – *Los Beatos* – Brussels, 1985 (in Spanish).
32. Galichian, Rouben – *Historic maps of Armenia, The Cartographic Heritage* – I. B. Tauris, London, 2004.

33. Galichian, Rouben – *Armenia in World Cartography* – Yerevan, Printinfo, 2005, (in Armenian and Russian). Գալչեան, Ռուբէն – *Հայաստանը համաշխարհային փարտագրութեան մէջ* – Երևան, Պրինտինֆո, 2005:
34. *Geographical maps and Historical Documents related to the Persian Gulf* – Published for the International Conference on the Persian Gulf, Nov. 1989, Tehran, Shahab Geographic and Cartographic Establishment, 1989.
35. Gervase of Tilbury – *Otia Imperailia. Recreation for an Emperor* – Translated from Latin by S. E. Banks and J. W. Binns, Oxford, Oxford University Press, 2002.
36. Gottheil, Prof. Richard – *On Syriac geographical Chart , Berlin Sachau 81, of Menareth Kudshe’* – Journal of American Oriental Society, Vol. 13, 1889.
37. Hakluyt, Richard, Editor – *The Principal Navigations, voyages, traffiques and discoveries of the English nation* – in 12 volumes, Glasgow, James MacLehouse, 1903.
38. Hakobian, Melik-Bakhshian, Barseghian - *Toponyms of Armenia and neighbouring regions*- Yerevan, State University Publication, 1986-2001, (in Armenian). Հակոբյան, Թադևոս Խաչատուրի, Մելիք Բախշեան Ստեփան Տիգրանի, Բարսեղյան Խիկար Հակոբի - *Հայաստանի և հարակից շրջանների տեղանունների բառարան* - հինգ հատորով, Երևանի Պետական համալսարան, 1986-2001:
39. Hakobian, Thaddeus – *A Concise History of Geography* – Yerevan, Luys Publication, 1976 (in Armenian). Հակոբյան, Թադևոս Խաչատուրի – *Մշակույթի համառոտ պատմություն* – Երևան, Լույս Հրատարակչություն, 1976:
40. Harley, J. B. & Woodward, David – *The History of Cartography* – Vol.1, Vol.2 Books 1 & 2, Chicago, Chicago University Press, 1987, 1992, 1994.
41. Harutunyan, Babken – *Preface to Ashkharhatzuytz of Khorenatzi* – Armenian Classical Authors, Vol. 2, Fourth Century, (Armenian Library of Calouste Gulbenkian Foundation), Antileas, Lebanon, 2003 (in Armenian). Հարությունյան, Բաբգեն – *Խորենացու Մշակույթի նախաբան, Մասնագիր հայոց* – հատոր Բ, (Հայկական մասեմաբար Գալուստ Կիլոյեղեանի հիմնարկութեան) Անթիլիաս, Տղարան Մեծի Տանն Կիլիկիոյ կաթողիկոսութեան, 2003:
42. Harvey, Paul D.A. – *Medieval Maps* – London, The British Library, 1991.
43. Hewsen, Robert H. – *The Geography of Ananias of Širak, Ašxarhaçoyç, the Long and the Short Recensions. Introduced, Translated and Commentary* – Wiesbaden, Ludwig Reinhard, 1992.
44. Hewsen, Robert H. – *Ašxarhaçoyç. The Seventh Century Geography attributed to Ananias of Širak. A facsimile reproduction of the 1881 Venice Edition of the longer version of the text of the unique manuscript (Venice No. 1245) and of the 1944 Yerevan Edition of the short version (Matenadaran manuscript No. 582 - Delmar NY, Caravan Books, 1994.*
45. Hieronymous, Saint – *Liber de Situ et Nominibus Locum Hebraicum* – London, The British Library, MS, Add. 10049 (in Latin).
46. Higden, Ranulf – *Polychronicon* – London, The British Library, MS, Royal 14 C IX (in Latin).
47. Higden, Ranulf – *Polychronicon* – translated by John Trevisia in 1387. Facsimile reproduction of the book printed in 1527. London, Edited by Churchill Babington, 1865.
48. Hovhannisian, Hovhannes – *An Armenian manuscript map of the world* – Vol. 43 University Scientific Publications, Yerevan, Yerevan State University, 1954, (in Armenian). Հովհաննիսյան, Հովհաննես - *Մշակույթի Հայկական շեռագիր փարտագր* - Երևան, Համալսարանի Գիտական Աշխատություններ, Հատոր 43, որակ 1, ԵՊՀ, 1954.
49. Ibn-Batuta – *رحله , Rehle* (Travelogue) – In two volumes. Translated from Arabic and notated by Dr Muhammed-Ali Movahhed, Sepehr- Tehran, Naghsh Publishers, 1990, (in Farsi).
50. Ibn-Hawqal – *صورت الارض , Surath el Ardh* – Translated from Arabic by Dr J. Shoār, Tehran, Bonyade Farhang Publications, 1345/1966 CE, (in Farsi).
51. Isidore of Seville – *De Nature Rerum. Ethymologiae* – London, The British Library, Harely MS-2660 (in Latin).
52. Al-Istakhri – *مسالك وممالك , Masālik va Mamālik* – Translated from Arabic by I. Afshār, Tehran, Bongāhe Tarjome va nashre Ketāb, 1340/1961 CE (in Farsi).
53. Jomard, Marquis – *Le monuments de la Geographie ou Recueil d’Anciennes Cartes Europeannes et Orientales* - Paris, 1828 (in French).
54. Kamal, Yousouff – *Monumenta Cartographica Africa et Aegypti* – volumes 1-5, Cairo, 1926-1952.
55. Kātib Chelebi *کاتب چلبی - Jehān Nümā جهان نما* – (Mirror of the World) c. 1657. Ottoman manuscript, London, The British Library, OIOC MS ref. Or.1038 (in Turkish).
56. Kātib Chelebi *کاتب چلبی - Jehān Nümā جهان نما* – (Mirror of the World). Ottoman Turkish, printed version of the above, Istanbul, edited by Ibrahim Müteferrika, 1832/3. (copy in the British Library OIOC ref. Or. 80.a.7. In Turkish).
57. Khachaturian, Mkrtych. M. – *The Medieval Oval Map in Armenian* - Yerevan, Academy of Sciences Publication, 1976 (in Armenian). Խաչատուրյան, Մկրտիչ Մանուկի - *Միջնադարի շփածիր հայերեն փարտագր* – Բնագիտության և Տեխնիկայի Պատմությունը Հայաստանում, հատոր VI, Երևան, ՀՍՍՀ ԳԱ Հրատարակչություն, 1976:
58. King, Charles, *The Black Sea: a history*. Oxford, Oxford University Press, 2004.

59. Komroff, Manuel – Contemporaries of Marco Polo, *The Journal of Friar William of Rubruck, 1253-1255* – London, Jonathan Cape, 1929.
60. Koriun – *Life of Mashtotz* – Yerevan state University, Yerevan, 1981 (Classic Armenian, Armenian and English). Կորյուն – *Վարժ Մասշոտչի* – Երևան, Երևանի Պետական համալսարան, 1981:
61. Lane, George – *An Account of Gregory Bar Hebraeus Abu al-Faraj and His Relations with the Mongols of Persia*, Hugoye: Journal Of Syriac Studies, Vol. 2, No. 2, July 1999. Electronic Journal of Beth Mardutho: The Syriac Computing Institute. <http://syrcom.cua.edu/Hugoye/Vol2No2/HV2N2GLane.html>.
62. Lewis, Suzanne, *The Art of Matthew of Paris in the Chronica Majora* . Aldershot, Scolar Press in collaboration with Corpus Christi College, Cambridge, 1987.
63. Macrobius, Ambrosius Aurelius Theodosius - *Commentary on the Dream of Scipio* – With English translation, introduction and notes by William Harris Stahl, New York, Columbia University Press, 1952.
64. Manandian, Prof. Hakob – *Main roads of the ancient Armenia* – Yerevan, Melkonian Fund Publication, 1936 (in Armenian). Մանանդյան, Պրոֆ. Հակոբ - *Հին Հայաստանի գլխավոր ճանապարհները* - Երևան, Մելքոնյան Ֆոնդի հրատարակություն, 1936.
65. Manandian, Prof. Hakob – *The placement of Caspia Via and Caspiae Portae* - Collection of Works, Yerevan, Academy of Sciences Publication, Vol. 5, 1984 (article in Russian). Մանանդյան, Պրոֆ. Հակոբ - *О Местонахождении Caspia Via и Caspia Portae* – Երևան ԳԱՀ, Հասր Ե, 1984:
66. Marco Polo, *The Travels of Marco Polo, the Venetian*. Translated and edited by William Marsden, re-edited by Thomas Wright. Garden City, NY, Doubleday & Co, 1948.
67. Matthew Paris – *Mattei Parisiensis, Moncahi Sancti Albanum, Chroica Majora* – Edited by Luard, Henry Richard in 7 volumes, London, Rolls Series, 1872-1880.
68. Mela, Pomponius – *Description of the World* – Translated with an introduction by F. E. Romer, Ann Arbor, University of Michigan Press, 1998.
69. Mikayelyan, Vartges A. – *History of the Crimean Armenian Community* – Academy of Sciences Publ., Yerevan, 1974 (in Armenian). Միխայելյան Վարդգես Ա. – *Ղրիմի հայկալական գաղութի պատմությունը* - Երևան, ԳԱ Հրատարակչություն, 1964:
70. Miller, Konrad, *Mappaemundi : die a'ttesten Weltkarten*, herausgegeben und erla'utert von dr. Konrad Miller, Stuttgart, J. Roth, 1897. (in German).
71. Miller, Dr. Konrad – *Weltkarte des Arabers Idrisi vom Jahr 1154* – Stuttgart, 1928 (in German).
72. Miller, Konrad, *Mappae Arabicae: arabische Welt- und Länderkarten des 9.-13. Jahrhunderts, in arabischer Urschrift, lateinischer Transkription und Übertragung in neuzeitliche Kartenskizzen : mit einleitenden Texten*. Stuttgart, Selbstverlag des Herausgebers, 1926-1931. (in German).
73. Mostaufī, Hamd Ullāh – *Nuzhat ul Ghulūb* – British Library, OIOC, ADD-23543 and ADD-23544, 1634 and later (in Farsi).
74. Al-Muqaddasī – *احسن التقاسيم فى معرفت الاقاليم, Ahsan al Taqāsim fi Ma'rifat al-Aqālim or The best divisions for the knowledge of the Regions* – Translated from Arabic by Prof. Basil Collins, Reading, Garnet, 2001.
75. Muradyan, Gohar – *Physiologues, The Greek and Armenian versions with a study of translation techniques* – Hebrew University Armenian Studies 6, Leuven, Peeters, 2005.
76. Nalbandian H. T. – *Arab Sources on Armenia and her Neighbouring Countries* – Armenian Academy of Sciences Publication, Yerevan, 1965 (in Armenian). Նալբանդյան Հ. Թ. – *Արաբ աղբյուրները Հայաստանի և հարևան երկրների մասին* – Երևան, ՀՍՍՌ ԳԱ Հրատարակչություն, 1965:
77. Paulus Orosius, *Seven books of history against the pagans: the apology of Paulus Orosius*. Translated with introduction and notes by Irving W. Raymond. (Records of civilization, sources and studies, no. 26). New York, Columbia University Press, 1936.
78. Orosius, Paulus - *King Alfred's Anglo-Saxon version of the Compendious History of the World* – London, Longmans, 1855.
79. Pliny – *Natural History* – Translated from Latin by H. Rackham, Loeb Classical Library, Harvard University Press, Volume II, Books 3-7, 1942 and 1999.
80. Podnosilov, Alexander Vasilevich – *West Europe in Roman cartographic traditions-* Moscow, Indrik Publ., 2002 (in Russian). Подносилов, Александр Василевич - *Восточная Европа в римской картографической традиции* - Москва, Индрик, 2002.
81. Ptolemy, Caludius – *The Geogrpahy* – New York, Dover Publications, 1991. Translated and edited by Edward L . Stevenson
82. Reza, Prof. Enāyatollāh - *Aran from the Ancient Times to the Beginning of the Mongol Era* - Second publication, Tehran, Foreign Ministry Publications, 2003 (in Farsi).
83. Reza, Prof. Enāyatollāh - *Azerbaijan and Aran*– Tehran, Iran Zamin Publishers, 1982, (in Farsi).
84. Roncière, Monique and du Jardin, Michel Mollat – *Sea Charts of the Early Explorers* – Translated from French by L. le R. Dethan, Fribourg, Thames and Hudson, 1984.
85. Rosien, Walter – *Die Ebstorfer Weltkarte* – Niederische Amt für Landesplanung und Statistik, A11/19. Hanover, 1952 (in German).

86. Russell, Bertrand – *Philosophy* – New York, Norton, 1927.
87. Safrastian , Aram K. – *Turkish authors about Armenia and Transcaucasian nationalities* - Yerevan, 1964 (in Armenian). Մաֆրասյան, Արամ Խաչատուրի - Թուրքական աղբյուրների Հայաստանի, հայերի և Անտրկովկասի մյուս ժողովուրդների մասին, Հաս. 2 – Երևան, Գիտությունների Ակադեմիայի Հրատարակչություն, 1964.
88. Sahāb, Abbās – *Atlas of the Geographical Maps and Historical Documents on the Persian Gulf* – Tehran, Sahāb geographic and cartographic publishers, 1994.
89. Sallustius, Caius Crispus – *The conspiracy of Catiline and The Jugurthine War* – Translated from Latin by Rev. John Selby, New York, Harper and Brothers, 1879. Electronic version available on the Web from O’Brian’s Bookshop.
90. Sallustius, Caius Crispus – *The Jugurthine Wars* – With translation by H. E. Butler, Oxford, Clarendon Press, 1921.
91. Santarem, Vicomte de Soro – *Atlas composé de Mappemondes, de Portulans et de Cartes Hydrographiques et Historiques* – Paris, 1842-53 (in French).
92. Sanudo – *Liber Secretorum Fidelium Crucis. Recuperatio Terrae Sanctae* – London, The British Library, MS Add 27376 and Add 27376* (in Latin).
93. Siebold, Jim – *Index of Cartographic Images of Early Medieval Period 400-1300 AD* - www.henry-davies.com/MAPS
94. Soro, Antonio Cagigos – *The Beatus of La Seu Urgell & all its Miniatures* – La Seu d’Urgell, Diocesan Museum of Urgell, 2001.
95. *Soviet Armenian Encyclopaedia*, Volume 3, Yerevan, 1977 (in Armenian). Հայկական Սովետական հանրագիտարան, Հասնր 3, Երևան, 1977.
96. *Soviet Armenian Encyclopaedia*, Volume 4, Yerevan, 1978 (in Armenian). Հայկական Սովետական հանրագիտարան, Հասնր 4, Երևան, 1978.
97. *Soviet Armenian Encyclopaedia*, Volume 7, Yerevan, 1987 (in Armenian). Հայկական Սովետական հանրագիտարան, Հասնր 7, Երևան, 1987.
98. Stahl, W. Harris – *Martianus Capella and the Seven Liberal Arts* – NY, Columbia University, 1977.
99. Strabo – *Geography* – With English translation and notes by Horace L. Jones (Loeb Classical Library), Cambridge, Mass., Harvard University Press, Volume V, Books 10-12, 1928 and 2000.
100. Suny, Ronald Grigor – *The Making of the Georgian Nation* – London, I. B. Tauris, 1989.
101. Taylor, John – *The “Universal Chronicle” of Ranulf Higden* – Oxford, Clarendon Press, 1966.
102. Ter-Ghevondian, Aram – *Arab Historians and Geographers of IX-X Century* – Yerevan University, 2005 (in Armenian). Տեր-Ղեվոնդյան, Արամ - *Արաբ մատենագիրներ Թ-Շ Գրքեր* - Երևանի Պետական Համալսարան, 2005:
103. Ter-Minassiantz, Erwand, *Die armenische Kirche und ihrer beziehungen zu den syriachen Kirchen bis zum Ende des 13. Jahrhunderts, nach den armenischen und syrischen Quellen.* Leipzig, J. C. Heinrichs, 1904. (in German).
104. Togan, Ahmed Zaki Validi – *Biruni’s Picture of the World* - Archaeological Review of India, Vol. 53, Delhi, 1937.
105. Uhden, Richard – *Die Weltkarte des Isidorus von Sevilla* – Bibliotheca Classica Batavia, Mnemosyne Series 3, Leiden, 1935/6.
106. Vaughan, Richard – *Matthew of Paris* – Vol.6, New Series, Cambridge Studies in Medieval Life and Thought – Cambridge University Press, 1958.
107. Van Duzer, Chet & Dines, Ilya – *The Only Mappamundi in a Bestiary Context: Cambridge, MS Fitzwilliam 254* – Imago Mundi journal, Vol. 58, Part 1, pp. 7-22, London, 2006.
108. Virgilius, Maro Publius – *Ecloues, Georgics, Aenid* – Translated from Latin by H. Rushton Fairclough, London, Heinemann, 1916, in two volumes.
109. Volk, Sylvia – *Trivia page of Myths, The Legend of Gog and Magog* – Website, 1999.
110. Voskanian, Armenak M. – *The Armenian Plateau* – Yerevan State University, 1976 (in Armenian). Ոսկանյան, Արմենակ Մարտիրոսի – *Հայկական լեռնաշխարհ ֆիզիկա-աշխարհագրական համառոտ սկզբնաղբյուր*, Երևան, Երևանի համալսարանի հրատարակչություն, 1976:
111. Wallis Budge, Sir Ernest A., Editor - *The History of Alexander the Great, being the Syriac version of the Pseudo–Callisthenes* - Edited from five manuscripts, with an English translation and notes by Ernest A. Wallis Budge, Cambridge, The University Press, 1889.
112. Westrem, Scott D. – *The Hereford Map* – from “Terrarum Orbis” series, Vol. 1, Belgium, Brepols Publishers, 2001.
113. Whitefield, Peter – *The Image of the World* – Pomegranate Artbooks, San Francisco & The British Library, 1997.
114. Wigal, Donald – *Historic Maritime Maps 1290-1699* - New York, Parkstone Press, 2000.
115. Williams, John – *Isidore, Orosius and the Beatus Map* – London, Imago Mundi journal, Vol. 49, Part 1, 1997.
116. Wright, William – *A Short History of Syriac Literature* – Amsterdam, Philo Press, 1966. A revised and updated edition of the 1894 published volume.
117. Yefimov, Alexander Vladimirovich – *Atlas of Geographical Discoveries in Siberia and North Western America in XVII-XVIII centuries* – Moscow, Nauka Publishing House, 1964 (in Russian). Ефимов Александр Владимирович - *Атлас Географических Открытий в Сибире и в Северно-Западной Америке XVII-XVIII в.* – Москва, Издательство “Наука”, 1964.

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