

THE DESCRIPTION OF AL-ANDALOS

ABSTRACT

The text by Al-Idrisi within the 'BOOK OF ROGER', (a sub-title of its Arabic title), is loosely divided into 7 Climates each being theoretically 9 degrees of latitude. Each Climate is then divided into 10 sections each being theoretically 18 degrees of longitude. Al-Andalos or Spain in this text comprises the whole Iberian Peninsula and is described within the 4th Climate, 1st Section and the 5th Climate, 1st Section; these two Climates basically divide the peninsula in half latitudinally.

It is a highly detailed description comprising 81 pages in French translation and is by far the most expansive description of any country or area within 'The Book of Roger'.

But that description, even though Al-Idrisi is well aware of the country of Al-Andalos, is faulty; that is because of the words he has chosen to portray the shape of the Peninsula. Al-Idrisi uses the term "triangle" and then qualifies it pages later with the words, "*we say therefore that the form of Spain, in the most extreme use of the term may be described as a triangle.*"

The damage however had already been done and subsequent scribes portrayed Spain as a triangle. Al-Idrisi also used a metaphor which may also be considered suspect to describe L'Angleterre as being of an Ostrich Head shape as is discussed in the [text cgId1](#). This [text cgId2](#) endeavours to redress the wrong impression given by Al-Idrisi with his faulty metaphor, his somewhat throwaway description of Spain, and use his own text to indicate how he actually viewed the Peninsula and probably drew his map of it. It is obvious that it was not viewed as a triangle.

The text has 15 A4 pages and 28 A4 diagrams.

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SYNOPSIS

In two sentences within Climate 4, Section 1, which are some 10 pages apart, Al-Idrisi in the first makes a simple statement, "*presqu'île Andalous attendu que sa forme triangulaire,*" and in the second, "*Nous disons donc que L'Espagne forme, dans la plus grande extension de ce terme, un triangle.*"

These two statements are incompatible as the second clearly acknowledges that the triangle can only be considered a description in the loosest, the most expansive, and the furthest stretched terminology possible.

Thus by examining the whole text we can actually determine the form of the peninsula as Al-Idrisi knew it. This requires the analysis of Climates 4 and 5, Section 1 of each. However, Al-Idrisi does tend to move around the peninsula in a somewhat chaotic method, but for continuity it has been followed.

Not being able to read Arabic script the Al-Idrisi text used for this review is the French translation by Jaubert. There is a second partial translation (limited number of Climates) also into French by Dozy/Goeje which is also referred to. But as the two do not necessarily agree I have tried to seek a direct Arabic to English translation where necessary to overcome those and other problems.

But we must be cautious; Arabic to French to English can cause its own problems.

The first diagram [cgId2/D01](#) is a compound collation of several maps taken from the Arabe 2221 text and illustrates the whole peninsula of Spain and its adjoining lands. It demonstrates the art of the scribe and the complexity of the coastlines which cannot be found within the actual text.

In his chapter within the ‘History of Cartography’, ‘Cartography of al-Sharif al-Idrisi’, S. Maqbul Ahmad publishes an appendix containing a list of known manuscripts of the ‘*Book of Roger by Al-Idrisi*’.

It is herein included as Diagram [cgId2/D02](#), as originally printed with foot notes, such that not only can it be shown we are using a translation of the oldest surviving complete text, but that that text is only some 200 years after the original manuscript was written. Hopefully therefore, there are few scribal errors normally associated with continuous copying. However, the maps contained in that document are therefore not original but copied by later scribes and both they and the text may have been edited and/or corrupted.

In his text, S Maqbul Ahmad makes the following statement; “*Although Al-Idrisi made Ptolemaic cartography the basis of his sectional maps in the ‘Nuzhat al-mushtaq’, (the Book of Roger), we are able to surmise that they were an improvement over the maps drawn during the time of the caliph al-Ma’mūn (such as al-Ma’mūn’s map, 813-833CE).*”

But it must be clearly stated that the Al-Idrisi maps we now read and study owe little to the Ptolemaic cartography we observe today and the maps attached to the extant copies of the “*Book of Roger*” appear to have moved away from their original form.

We must also bear in mind S M Ahmad’s later comment, “*Exhaustive descriptions in the text include physical, cultural, political, and socioeconomic conditions of each region, and each of the 70 sections of text has a corresponding sectional map (although the text and map are not identical in content).*”

It is also pertinent to note that the copies of the text of Al-Idrisi now include a circular world map, which is not mentioned within the text, particularly the prologue where he sets out his intentions.

The maps certainly appear to have been altered in size from what we may perceive as the originals, that is a length to height ratio of 2:1 determined from the fact that the latitude of the oikoumene is 63(64) degrees and the longitude is 180 degrees, divided into 10 parts and hence each is 9 x 18 degrees. That statement is made after a cursory look at the other codices and their maps which vary considerably in size and actual content. This indicates that the various scribes used their own tastes to determine those maps and possibly the first copyist produced the circular world map which is now included in all codices. It should also be noted that the 1348CE Cairo copy of the manuscript is the basis for others, including the POCOCKE 375 manuscript held in the Bodleian Library Oxford. The following [text cgId3](#) discusses this in detail.

However it is worth quoting at this juncture a section of the S Maqbul Ahmad text as it succinctly explains the situation apropos the maps, as will be discussed also in the following [text cgId3](#); “*Since the work as a whole was meant primarily to include physical and descriptive geography, latitudes and longitude values are not given in the text, where distances are used for specific locations. In his sectional maps, however, Al-Idrisi did follow a definite geographical order. The 70 maps, when arranged in order of Climates and Sections, present a broad picture of the world as conceived by Al-Idrisi. For the western limit of the inhabited world, Al-Idrisi adopted the prime meridian of the Fortunate Isles (al-Khalidat), like Ptolemy and some other Arab cartographers. The extreme eastern limit was Sila Island (Korea) through which 180° was supposed to pass. The northern limit was 64N, but Al-Idrisi did not specify the southern limit. Each of the sectional maps depicts the physical features in different colours. Latitudes and longitudes are not shown on these maps, and the locations of towns and other features do not always coincide with the distances given in the text³⁹. The maps also vary in other respects from the written descriptions. A glance at the sectional maps would immediately give the impression that they generally depict Europe, North Africa, the Mediterranean region and western Asia more accurately than they do the rest of Africa, Asia or Southeast Asia. However, they compare well with the world map of Al-Khwarazmi reconstructed from his*

tables by modern scholars⁴⁰.

{NOTE 39) However, it is believed that to some extent Al-Idrisi did use latitudes in plotting his localities; see Edward S. Kennedy, “Geographical Latitudes in Al-Idrisi’s World Map”, in *Zeitschrift für Geschichte der Arabisch-Islamischen Wissenschaften* 3 (1986); 265-268; and, NOTE 40) See Hans von Mzik, ed., *Das Kitab surat al-ard des Abu Ga’far Muhammad ibn Musa al-Huwarizmi*, in *Bibliothek Arabischer Historiker und Geographen*, vol 3 (Leipzig, 1926) and the world map reconstructed on the basis of this work by S. Razia Ja’fari, “A critical revision and interpretation of *Kitab surat al-ard* by Muhammad b. Musa al-Khwarizmi” (thesis, Aligarh Muslim University)}.

But, what were Al-Idrisi’s geographical research papers. He lists some 12 in the preface to the text, but from the text it is evident those are not the full number. We know that copies of many texts were extant, particularly those copied by Arab Scholars. But the most important of those, bearing in mind that the Mediterranean Sea was primarily a Greek and then a Roman domain, would be from Geographers of those countries. But, it should be noted that these, other than the text of Claudius Ptolemy are not part of the 12 listed. Thus we can extract from the extant texts descriptions of Spain and indicate if and how they may have influenced Al-Idrisi. The only European text mentioned by name is that of Paulus Orosius (cgPaO1).

Al-Idrisi tells us that he used the ‘Surat al-ard’ (map of the earth), called ‘al-jughrafiya’ by Ptolemy, as the basis of his description of the earth. It had been used by a number of Islamic geographers and cartographers. Some idea of the original source can be gathered from ‘*Kitab surat al-ard* of Al-Khwarazmi’, but the question of which version of ‘al-Jughrafiya’ Al-Idrisi used cannot be answered. It was obviously an Arabic version, but appears to have been different from the ‘*Geographia* of Ptolemy’ and his maps as we know them. There are various inconsistencies within the Al-Idrisi text to the ‘*Geographia* of Ptolemy’ which are fully discussed by S Maqbul Ahmad. (See page 168-169 and particularly note 51, in *History of Cartography*, chapter 7)

ANCIENT GEOGRAPHERS

HERODOTUS, ‘THE HISTORIES’

Diagram cgId2/D03

That he knew Spain and the Pillars of Hercules is attested by his own writings. He knows that the Mediterranean Sea is called the Atlantic beyond the Pillars; he comments that the Celts live beyond the Pillars next to the Cynesians who are the most westerly peoples of Europe. In relating the story of Hercules and the Oxen of Geryon he notes that Gades Island lies beyond the pillars in the Ocean. He calls into question geographers who indicate the Oikoumene as surrounded by the River Ocean and gives detailed measurements of Anatolia and Persia. His book is a treasure trove of geographical information. (text cgHs1)

STRABO, ‘GEOGRAPHIA’, Book 3/1/3, 4, 6 and 9

Diagram cgId2/D04

“Iberia is like an Ox-hide extending in length from west to east, its foreparts towards the east and in breadth from north to south. It is 6000 stadia in length all told and 5000 in its greatest breadth; though in places it is much less than 3000 stadia in breadth, particularly near the Pyrenees, which form its eastern side. That is, an unbroken chain of mountains, stretching from north to south, forms the boundary line between Celtica and Iberia; and since Celtica, as well as Iberia, varies in breadth, the part of each country that is narrowest in breadth between Our Sea and the Ocean is that which is nearest the Pyrenees, on either side of those mountains, and forms gulfs both at the Ocean and at Our Sea. The Celtic gulfs, however, which are also called Galatic, are larger, and the isthmus which they form is narrower as compared with that of Iberia³. So the eastern side of Iberia is formed by the Pyrenees; the southern side is formed in part by the Ocean, up to what is called the Sacred Cape⁴; the third is the western side, which is approximately parallel to the Pyrenees and extends from the Sacred cape to the cape of the Artabrians which is called Nerium⁵; and the fourth side extends from Cape Nerium up to the northern headlands of the Pyrenees”.

{NOTES; 3) According to Strabo, there were 2 galatic (Celtic) gulfs, the one looking toward the north and

Britain (2.5.28) and the other on the Mediterranean Sea side; that is respectively the Gulf of Gascogne, in its extent on the French side of the Pyrenees, and the Gulf of Lyon. The latter however, comprised within itself the 2 Galatic Gulfs (4.1.6) here. NOTE 4, Cape St Vincent: NOTE 5, Cape Finisterre }.

Paragraph 4 extracts; The Sacred Cape is the most westerly point not only of Europe but of the whole inhabited world. Headlands of Iberia project at the aforementioned cape about 1500 stadia beyond those of Libya. Moreover, the country adjacent to the Sacred Cape they call in the Latin language “Cuneus” meaning thereby to indicate its wedge shape.

Paragraph 6 extracts; *”the coastline adjacent to the Sacred Cape, on its west, is the beginning of the western side of Iberia, as far as the mouth of the River Tagus, and, on the south, the beginning of the southern side as far as the river, The Anas, and its mouth”*.

Paragraph 9 extracts; *” then, finally comes the Sacred Cape, which is less than 2000 stadia from Gades. Some, however, say that the distance from the Sacred Cape to the mouth of the Anas River is 60RM and thence to the mouth of the Baetis River 100RM and then to Gades 70RM”*. (texts Es1 and Es2)

POMPONIUS MELA, ‘DESCRIPTION OF THE WORLD’; 1.19; 2.84-86; 3.3-15. Diagram cgId2/D05
1.19; *Spain stretches, with differently situated coastlines, to the west and also for a long time to the north.*

2.84; *then, between spurs of the Pyrenees, came the saltless Port Venus and the district of Cervaria (Cerbera), the boundary of Gaul. 2.85; the Pyrenees to begin with extend from here to the Britannic ocean. Then, after shifting direction, the range bursts into the lands of Spain, and excluded from its smaller division to the right, it protracts its continuous sides in an uninterrupted path until it reaches the western shores after going across the entire province in a single line. 2.86; Spain actually is girt by the sea except where it is contiguous with Gaul, and it is especially narrow at the places of contact. Spain extends gradually into Our Sea and Ocean, and becoming increasingly wider the further it goes it becomes the widest right there.*

3.3-3.15 extracts; The Atlantic and the line of Baetica’s ocean front receive those who travel this way and follow the right hand coast (Travel from Med Sea exiting the Pillars). The coastline is virtually straight as far as the Anas River, except where it draws back gradually once or twice.

By contrast, on the other side of the Anas, where it faces the Atlantic Ocean, Lusitania at first goes on with a mighty thrust into the sea, then it stops and recedes farther than Baetica does. Where it juts out, the coast spreads into three promontories, with the sea being received in two folds. The promontory beside the Anas is called Wedge Field (Cabo de Santa Maria), because it runs out from a wide base and gradually hones itself into a point (see Ptolemy map); they call the second one Sacred Point and the one beyond it Great point (Cabo da Roca). On Wedge Field are Myrtili, Balsa and Ossonoba; on Sacred point, Laccobriga and Port Hannibal; on Great Point, Evora. Bays lie between the promontories.

Pomponius Mela discusses the western coastline from Lisbon and the Tagus River to the north western corner of Spain. When he discusses the northern shores in 14 and 15 he states that, ‘the coast begins to recede gradually, and the breadth of still -wide Spain begins to contract more and more. The land narrows so much that where it abuts Gaul, its breadth is less by half than where it extends its western shore.’ He concludes, ‘one nation the Vardulli spreading from here to the promontory of the Pyrenees terminates the Spains.’

Text available from University of Michigan Press, F E Romer, 1998.

PLINY THE ELDER, ‘NATURAL HISTORY’; 3.2; 3.3.13/14; 4.4 **Diagram cgId2/D06**
3.2; *The first land situate upon this Gulf is that which is called Farther Spain or Baetica¹; next to which, beginning at the frontier town of Urgi², is the Nearer, or Tarraconensian³ Spain, extending as far as the*

chain of the Pyrenees. The Farther Spain is divided lengthwise into two provinces, Lusitania⁴ and Baetica, the former stretching along the northern side of the latter, and being divided from it by the River Ana⁵.

Tarraconensian Spain lies on one side, contiguous to the Pyrenees, running down-wards along the sides of that chain, and, stretching across from the Iberian Sea to the Gallic ocean⁸, is separated from Baetica and Lusitania by Mount Solorius⁹, the chains of the Oretani¹⁰ and the Carpetani¹¹, and that of the Astures¹².

NOTES; 1) Guadalquivir or Great River, 2) on Sinus Urgitanus, 3) from Tarragona, 4) Portugal, 5) now Gaudiana, a corruption of the Arabic Wadi Ana, the river Ana. 8) From the Balearic Channel to the Gulf of Gascony or bay of Biscay. 9) probably Sierra Nevada 10) probably Sierra morena

3.3; *Baetica, so called from the river which divides it in the middle, excels all the other provinces in the richness of its cultivation and the peculiar fertility and beauty of its vegetation. It consists of four jurisdictions, those of Gades, of Cordoba, of Astigi and of Hispali. The total number of its towns is 175; of these 9 are colonies, and 8 municipal towns; 29 have long since been presented with the old Latin Rights; 6 are free towns, 3 federate and 120 tributary.*

(There follows an (omitted) compendium of places along the coastline, but without distances given.) *Marcus Agrippa has also stated the whole length of this province to be 475 miles, and its breadth 257; but this was at a time when its boundaries extended to Carthage, a circumstance which has often caused great errors in calculations; which are generally the result either of changes effected in the limits of provinces, or of the fact that in the reckoning of distances the length of the miles has been arbitrarily increased or diminished. In some parts too the sea has been long making encroachments upon the land, and in others again the shores have advanced; while the course of rivers in this place has become more serpentine, in that more direct. And then, besides, some writers begin their measurements at one place, and some at another, and so proceed in different directions; and hence the result is, that no two accounts agree.*

At the present day the length of Baetica, from the town of Castulo¹²¹, on its frontier, to Gades is 250 miles, and from Murci, which lies on the sea-coast 25 miles more. The breadth, measured from the coast of Carteia, is 234 miles. Who is there that can entertain the belief that Agrippa, a man of such extraordinary diligence, and one who bestowed so much care on his subject, when he proposed to place before the eyes of the world a survey of that world, could be guilty of such a mistake as this, and that too when seconded by the late emperor the divine Augustus? For it was that emperor who completed the Portico¹²² which had been begun by his sister, and in which survey was to be kept, in conformity with the plan and descriptions of Marcus Agrippa. NOTES, 121) Cazlona; 122) this was Portus Octaviae .

4.3; *the ancient form of the Nearer Spain, like that of many provinces, is somewhat changed, since the time when Pompey the Great, upon the trophies which he erected in the Pyrenees, testified that 877 towns, from the Alps to the borders of Farther Spain, had been reduced to subjection by him. The whole province is now divided into 7 jurisdictions, those of Carthage¹, of Tarraco, of Caesar Augusta², of Clunia³, of Asturica⁴, of Lucus⁵ and of the Bracari⁶. To these are to be added the Islands, which will be described on another occasion, as also 293 states which are dependent on others; besides which the province contains 179 towns. Of these 12 are colonies, 13 towns with rights of Roma Citizens, 18 with old Latian rights, 1 confederate and 135 tributary.*

The length of Nearer Spain, from the Pyrenees to the frontier of Castulo is 607¹¹⁴ miles, and a little more if we follow the line of the coast; while its breadth, from Tarraco to the shore of Olarson¹¹⁵ is 307¹¹⁶ miles. From the foot of the Pyrenees, where it is wedged in by the near approach of the two seas, it gradually expands until it touches the Farther Spain, and thereby acquires a width more than double.

NOTES; 1) now Cartagena; 2) now Saragosa; 3) the most remote place of Celtiberia on the west. Its ruins are on summit forming natural wall between Corunna del Conde and Pennalda de Castro; 4) Asturica

Augusta, now Astorga; 5) now Lugo; 6) now Braga; 114) error, it is only c470RM, coastwise it is c620RM; 115) now Oyarzun; 116) error, straight line c210RM. (see texts [cgPI1](#) and [cgPI2](#))

CLAUDIUS PTOLEMY, 'GEOGRAPHIA', BOOK 2, CHAPTER 3. Diagrams [cgId2/D07](#) & [cgId2/D08](#)

Location of Baetica Hispania

In Hispania, which in Greek is called Iberia, there are 3 provinces, Baetica, Lusitania and Tarraconensis. The side of Baetica which is on the west and north is terminated by Lusitania and part of Tarraconensis. The southern side of Baetica is terminated by the Outer Sea and the Hercules Strait, and by the Inner or Iberian Sea. The remaining part of the province, turning from the south is terminated on the Balearic Sea by the line which runs from the mentioned Chariduni promontory to the terminal position which is Baria Town at $11^{\circ} 45' E$ and $37^{\circ} 10' N$.

There is an island adjacent to Hispania Baetica in the Outer Sea, in which is the town of Gadira, the location of which is in $5^{\circ} 10' E$ and $36^{\circ} 10' N$.

Location of Lusitania Hispania

The south side of Lusitania, as we have indicated, is the northern boundary of Baetica; the north-side borders on Tarraconensis along the western part of the Dorius River, the mouth of which opens into the Outer Sea in the locality, $5^{\circ} 20' E$ and $41^{\circ} 50' N$. The eastern side also borders on Tarraconensis and its termini as we have said are near the Anas River and the Dorius River. The west-side extends along the western Ocean.

Location of Tarraconensis Hispania

The western side of Tarraconensis which borders on the western Ocean is thus described after the mouth of the Dorius River. The north-side above which is the Ocean called Cantabrius is described as follows; after the Nerium Promontory there is another promontory in which are the Altars of the Sesti. The side towards the south is terminated by the Pyrenees, thence extending from the mentioned promontory on the coast of Our Sea where has been erected a Temple of Venus. The mountains, (Pyrenees) turn slightly towards Hispania and the middle of the bend is toward Tarraconensis, that which borders on Lusitania and Baetica has been described, the remaining part which borders on the Balearic Sea and looks towards the south.

The work of Claudius Ptolemy is covered by texts, [Cp1](#), [Cp2](#), [Cp3](#), [Cp4](#) and [Ca1](#).

DIMENSURATIO PROVINCIARUM

Latin Minores texts

Hispania citerior finitur ab oriente saltu Pyrenaeo, ab occidente Oretania, a septentrione oceano, a meridie mari Hiberico. Cuius spatia patent in longo milia passuum DXXXV, in latitudine milia passuum CLXXXIII.

Asturia Gallicia et Lusitania ab oriente Cantabria et Oretania, ab occidente oceano..... Cuius spatia habent in longo milia passuum DLXXX, in latitudine milia passuum DLXXXV.

Hispania ulterior ab oriente Oretania, ab occidente oceano, a septentrione flumine Ana, a meridie mari Hiberico. Cuius spatia expanduntur in longitudine milia passuum CCCCLXXX, in latitudine milia passuum CCLXXXIII.

DIVISIO ORBIS TERRARUM

Latin Minores texts

Orbis dividitur tribus nominibus: Europa, Asia, Libya vel Africa. Quem divus Augustus primus omnium per chorographiam ostendit.

Principium ergo erit omnibus ab Europae freto, quem locum Graeci Heracleus stelas appellant.

Hispaniarum igitur provinciae tres. Ex eo loco ad montes Pyrenaeos per milia passus DCCCC in longitudine porrigitur, eademque latitudine in austro. Sed qua contrahitur, CCC milia passus videtur lata: itaque proxima a Pyrenaeis montibus.

Uterior Cordubesis Baetica. Prima itaque provincial finitur ab oriente saltu Carthaginensi et Oretaia, ab occidente oceano, a septentrione flumine Ana, a meridie mari Celtiberico.

Hispania Lusitania cum Asturica et Gallaecia. Finitur ab oriente Noeca Asturum, quae est ad mare oceanum, inde recta regione in meridie ad Statacum: ab occasu afflata: a septentrione oceano, a meridie flumine Ana. Patet in longitudine milia passuum CCCCLXXX in latitudine CCCCL. Hispania citerior. Finitur ab oriente saltu Pyrenaeo; ab occidente Noeca, quae est ad oceanum, inde recta regione Cartaginem; a septentrione oceano; a meridie mari celtiberico. Longitudo \bar{D} , latitude $\bar{C}\bar{C}$.

OROSIUS, 'History against the Pagans' 2.32 – 2.34

Diagram cgId2/D09

Spain, taken as a unit is formed by its natural contour into a triangle and is almost an island owing to the fact that it is surrounded by the Ocean and the Tyrrhenian Sea. Its first corner, facing east, is walled in on the right by the province of Aquitania and on the left by the Balearic Sea, and is wedged in next to the territories of the Narbonese. The second corner extends towards the north-west. There in Gallaecia is situated the city of Brigantia, which raises its towering lighthouse, one of the few notable structures in the world, toward the watch-tower of Britain. Its third corner is at Gades Islands, which face to the south-west and look toward the Atlas Mountains across the intervening gulf of the ocean.

The Saltus Pyrenaei forms the boundary of Hither Spain, beginning on the east and extending on the northern side as far as the territory of the Cantabri and the Astures; from this point though the territory of the Vaccaci and Oretani, which lies to the west, Carthage, which is situated on the coast of Mare Nostrum, determines the boundary.

Further Spain has on the east the Vaccaei, Celtiberi and Oretani, on the north and west the Ocean; on the south the strait of Gades. This strait belongs to the Ocean, and through it Mare Nostrum, which is called the Tyrrhenian Sea enters.

Inasmuch as there are in the Ocean islands called Britain and Ireland, which are situated opposite the Gauls in the direction of Spain, they will be briefly described. (see text cgPaO1)

DICUIL, 'THE BOOK ON THE MEASUREMENT OF THE EARTH'; 1/3 AND 9/12

The earth is divided into 3 sections, named Europe, Asia and Libya; and this the deified Augustus was first to exhibit by means of his world map.

All my work takes its beginning then from the Strait of Europe, which place the Greeks name the Columns of Hercules. The 3 Spanish provinces therefore stretch from there to the Pyrenees over a distance of 900 miles in longitude. There is the same distance in latitude in the south, but at its narrowest, close to the Pyrenees on this side, the latitude is given as 300 miles.

The first province then, that of Cordova, called Baetica, is bounded on the east by the mountains of Cartagena and by Oretania, on the west by the Ocean, on the north by the Gaudiana, and on the south by the Celtiberian Sea.

The province of Lusitania, together with Asturia and Galicia, is bounded on the east by Noeca Asturum, which is on the ocean, and thence in a straight line to the south, on the west by the Atlantic, on the north by the Ocean and on the south by the Gaudiana. It extends 480 miles in longitude and 450 in latitude. Hither Spain is bounded on the east by the Pyrenees, on the west by Noeca, which is towards the Ocean, and from there in a straight line to Cartagena, on the north by the Ocean, and on the south by the Celtiberian Sea. Its longitude extends 500 miles, its latitude 200. (Scriptores Latini Hiberniae text)

COMMENT; THE TEXT OF AL-IDRISI

Al-Idrisi commences his prologue with the words, "We commence by treating the figure of the earth as the description given by Claudius Ptolemy within his Geographia, etc, etc".

That is a habitable zone extending 63N and having a length of 180 degrees, called the 'Oikoumene'.

There is then an overall description of the Globe, its dimensions, the seven seas, and the lands divided into

seven climates which stretch from east to west divided into 10 sections.

The Prologue of Al-Idrisi is discussed fully in the following [text cgId3](#), and this text will solely concentrate on the description of Spain as now follows.

GENERAL DISCUSSION

Diagram [cgId2/D10](#)

The 4th Climate, 1st Section commences with three sentences which at best are anomalous, hard to comprehend, bearing in mind they are the introductory sentences to the description of the Iberian Peninsula. The second sentence contains the words, “*that its form is triangular*”, but they are so very misleading. The following text, after this short introduction and a discourse on the state of the surrounding Seas in ten pages of text describes the North African Littoral facing the Iberian Peninsula. Then having arrived at Oran, which Al-Idrisi states he spoke of in the 3rd Climate, he returns to the subject of Spain.

“Nous revenons maintenant à la description de L’Espagne à celle de ses routes, au détail de la circonscription de ses provinces et de ses limites, des sources de ses fleuves et de leurs embouchures dans la mer, de ses montagnes les plus célèbres, de ses ravetes les plus remarquables; et cela sans négliger d’invoquer le secours divin.”

But the following sentence is the most important Al-Idrisi has written regarding Spain. “*Nous disons donc que L’Espagne forme, dans la plus grande extension de ce terme, un triangle.*”

‘We say therefore that the form of Spain *in a most extreme or the loosest possible description* is a triangle.’

My translation is meant to illustrate the complete generalisation of the term triangle used by Al-Idrisi. It was no doubt born out of necessity to explain in words its relative shape when surrounded by three seas and not having an actual corner at its south-east part, but in so doing it has led to the shape of Spain being mis-represented, and mis-interpreted by subsequent geographers. However, if we view the world map of Claudius Ptolemy, which it is assumed was the only one of his maps available to Al-Idrisi, the description has some relevance as [Diagram cgId2/D07](#) indicated.

However, a following description indicates that when Al-Idrisi talks of the centre of the east coast being the Mediterranean Sea he is thinking of a triangle, but the shape Ptolemy indicates has a southern coastline from the Detroit to the Sacred Promontory. There is a dichotomy herein;

“Elle est, en effet, bornée de trois côtés par la mer, savoir: au midi par la Méditerranée, à l’ouest par l’Océan, et au nord par la mer que les chrétiens nomment mer de Galice.”

THE CENTRE OF THE PENINSULA

Diagram [cgId2/D10](#)

But the following paragraph belies the triangle completely as it describes distances from Toledo, given as the centre of Spain. Here there are a series of ‘9 day’ distances given to major towns which are situated close to the main compass points;

“La péninsule espagnole est séparée en deux sur toute sa largeur par une longue chaîne de montagnes qu’on appelle Charrat (Sierra), au midi de laquelle est située Toledo. Cette ville est le centre de toute l’Espagne, car de Toledo à Cordoba, au sud-ouest, on compte 9 journées; de Toledo à Lisbon, à l’ouest, 9 journées; de Toledo à Saint-Jaques, sur la mer de Galice, 9 journées; de Toledo à Jaca, à l’orient (ou plutôt au nord), 9 journées; de Toledo à Valencia au sud-est, 9 journées; enfin de Toledo à Almeria, 9 journées.”

Thus we read of a peninsula which from the preceding description would appear to be a square, with travel distances similar to the near cardinal points of the compass.

However, it is pertinent to explain that from Toledo to Cordoba, given as 9 days is a mis-copy (calculated from the text of Al-Idrisi) and it is probably meant to be Gades; i.e. Toledo to Gades is 9 days and Toledo to Cordoba is 5 days. Thus we can see from the [diagram cgId2/D10](#) that the six distances reasonably equate to

those cardinal points and were probably chosen for just that reason. But that equates to a square Spain and the triangle is no more than a false impression born of the Mediterranean Sea coastline.

THE OVERALL DISTANCE MEASURES OF SPAIN

Diagram cgId2/D11

Al-Idrisi quotes basic distance measures as follows; from Cape Creuz to Cape St Vincent, 1100 miles and then from Santiago de Compostella to Almeria, 600 miles. Al-Idrisi comments that these are actual road route mileages and not geographical calculations. Thus they can be tested against excellent route mileages given by the Romans.

CAPE CREUZ TO CAPE ST VINCENT DISTANCES; Diagrams cgId2/D12, cgId2/D13, cgId2/D14

In the Roman world c100BCE to 100CE route mileages were plotted and recorded and that record is now known as the '*Antonine Itinerary*'. It is a list of mileages from and within most provinces of the Roman Empire. There are also the '*Vicarellio Beakers*' which have cast on their outer shell a similar listing for one major route, Gades to Rome. Thus we have the Roman mileage from place to place along known routes. We must also include the Tabula Peutingeriana, the Roman Route map which is basically an illustration of the Antonine Itineraries, but must add at this point that the first section of that route map containing both Spain and Britannia is now missing. For our purposes the route from Gades to Rome which is via the Col des Pannisars in the Pyrenees is perfect. The Roman Way station atop the Pyrenees is the junction of the Via Domitia from Gaul and the Via Augusta in Spain and was marked by the so called '*Pompeius Trophy*', a monumental Arch. The Roman Road in Spain from Gades to the Arch was organised during the reign of Augustus on the prehistoric pathway known as Via Heraclea used by Hannibal in earlier times.

By using the Roman distance measures we can in fact show that the 1100 miles quoted by Al-Idrisi is quite correct whether the travel is by road or sea. The minor deviations of each are equal in distance.

The width, given as 600 miles from Santiago de Compostella to Almeria 'by known roads', is equally precise as is discussed later.

Thus we can state quite categorically that Al-Idrisi could not have meant that the Peninsula of Spain, Al-Andalos was actually triangular. It was a metaphor, a poor metaphor in the circumstances, but nevertheless it has had profound effect upon cartography.

Having dealt with the overall measures we can now turn to Al-Idrisi's sub-text, the internal distances and his description of Spain.

THE COASTLINE OF THE PENINSULA

Diagram cgId2/D15 & cgId2/D16

Returning to the very first sentences of the 4th Climate, 1st section, Al-Idrisi states that there is an interval of 5 days, i.e. a journey of 5 days from the junction of the Mediterranean Sea and the Ocean. That is, commencing at the Detroit and extending to Cape St Vincent. This is obviously a no-man's-land apropos the two bodies of water although it is referred to as the entrance to the Syrian Sea.

Curiously the map of this area in the 'ARABE 2221' text held by **BnF** has been altered, amended after it was drawn to illustrate just this point as diagram cgId2/D15 illustrates. The southern coastline of Spain has been curtailed by an over colouring as sea to provide for a 5 day journey time of land/sea between the Pillars of Hercules and Cape St Vincent, the extremity of Spain and the start of the Ocean Ténèbreux.

That alteration indicates that the text has been read and found to indicate a different geographical situation to that originally portrayed on the section map. That fact is illustrated by the matching diagrams from the Pococke 375 text of Al-Idrisi, as cgId2/D16 illustrates. However, the person who noticed this discrepancy and endeavoured to correct the map did not take into account the displacement of the African coastline across the Detroit that such an alteration would make.

Thus it is possible to state at this juncture that even the overall map produced by Dr Konrad Miller must be re-considered, re-assessed in the light of the text of Al-Idrisi and not accepted as representing the

original text but reproducing the diagrams accompanying later transcriptions only. This is fully discussed in the [text cgId3](#), to follow.

TEXT DETAILS AND DISCUSSIONS

Commencing at the beginning of the 4th Climate, Section 1; I translate it as follows;

“This first section commences at the part in the extreme west bathed by the Ocean Ténèbreux, the Sea of darkness from which issues the Sea of Syria (Mediterranean) which in turn trends towards the east. It is there that is situated the land of Andalous which the Christians name Spain or the Peninsula of Andalous, on account of that its form is triangular and itself narrows from the east side to the point of not leaving between the Mediterranean Sea and the Ocean, who surround it, but an interval of 5 days. The greatest width of Spain is about 17 days journey, starting from a promontory in the extreme west where ends the inhabited portion of the land surrounded by the Ocean. No one knows what exists beyond this sea; no one has been able to learn anything for certain because of the difficulty of crossing it, its profound darkness, the height of the waves, the frequency of its storms, the prevalence of its animals and the violence of its winds. There is however in this Ocean a large number of islands, inhabited or desert, but no ship’s captain ventures to cross it or to travel under full sail. They are limited to coasting, without losing sight of land. The waves of this sea are as high as mountains and although they are in violent commotion remain none the less whole, not breaking in pieces. If it were otherwise, to cross then would be possible.”

There is the curiosity within this text of a single mention of the ‘largest width of the peninsula being approximately 17 days’ journey’ and it being from a cape in the extreme west. This has previously been taken as being Cape St Vincent where the Ocean can be said to flow around and encircle the cape.

However, we have already seen that the width was given as 600 miles from NW to SE Spain. Thus the 17 days’ journey actually commences at Cape Finisterre or Cape Ortegal (a point mentioned by Al-Idrisi). But even if we accept the triangular description for one moment the width still cannot be measured from the south-west extremity. Thus the 600 miles and the 17 days’ journey are probably one and the same and possibly a slightly more direct route from Santiago de Compostella to Almeria than the one via Toledo which we are informed is 18 days’ journey. Al-Idrisi indicates in his text that he has assumed 30 miles for a days’ travel following the foothills of the Pyrenees between Biarritz and Cape Creuz as an acceptable figure. That is therefore that the given 9 days is thus an accurate 270 miles. Thus 17 days equals 510 miles and the mathematics makes reasonable sense with 600 miles being a slightly indirect route. It must be noted that Al-Idrisi varies the travel distance per day throughout his text from 20 to 30 miles at random.

Thus the extreme west of the peninsula is the north-west corner, and it is appropriate therefore in his text to follow with a description of the Ocean Ténèbreux as we are here at the most violent part of the Ocean.

It is now necessary to combine the data contained within Climates 4 and 5, Sections 1, to obtain an overall picture of the coastal distances and the internal road distances.

Each however is problematic; Al-Idrisi changes from Days’ Journey to Mileage between places even in the same sentence, and as stated we cannot know precisely which mileage per day is utilised.

THE NORTH COAST

[diagram cgId2/D16](#)

The north coast of Spain and the Pyrenees are described in the 5th Climate where Al-Idrisi commences at the north-west corner, Cape Ortegal and Santiago de Compostella.

“Leaving the church of St Iago the dark sea turns like an elbow which continues from the west to the east but trending a little towards the south and it continues until the town of Bayonne.”

After this description Al-Idrisi states *“the travellers take 23 days more or less to cover this distance”*. The total mileage given within the text is 317 miles, but, Cape Ortegal to Bayonne is actually 550Km or 350

miles. But, the actual text would appear to be faulty, probably a miscopy, as the north coast is ill defined to Bayonne. However, 317 miles in 23 days is only 13.78 mpd, and must have included many more stops.

Within this section the most important description given is that of the Pyrenees, their length and width and the crossing points between Spain and France. There is however a serious error within the French translation with the terms 'longueur' and 'largeur' being exchanged. This has been rectified by a direct translation from the original Arabic text.

The French text by Jaubert is as follows;

“Les voyageurs parcourent cette distance en 23 jours, plus ou moins. Bayonne est située a l’extrémité de ce cap. A partir de là (le rivage de) la mer reprend sa direction et fait face à l’occident. C’est au fort d’Alfar ou Algar, don’t nous venons de parler, que commence la chaîne des montagnes de Chibah (Ceva de Pyreneo) qui longent les bords de la mer jusqu’à Bayonne, tantôt s’en rapprochement à la distance de 15 milles. Ces montagnes s’étendent sans interruption jusqu’à Bayonne; là elles atteignent les montagnes du temple de Vénus (de Port-Vendres), et leur longueur est de 9 journées, en évaluant la journée à 30 milles. Les montagnes du temple de Vénus, situées a l’extrémité de la presque île d’Andalousie, s’étendent en largeur et ferment l’espace compris entre la mer Ténébreuse ou la mer des Anglais et la Méditerranée, c’est-à-dire entre Bayonne et le pays de Barcelone. Ces montagnes sont très-hautes et portent le nom d’al-Bortat (les Pyrénées). Elles séparent l’Andalousie du pays des Francs. La longueur de ces montagnes, du nord au sud et par des lignes (plus ou moins) courbes, est de 7 journées. Il y a quatre portes à l’entrée de défilés tellement étroits qu’il ne peut y passer qu’un cavalier après un autre. Ces portes sont larges et spacieuses, mais les chemins y sont affreux. L’une d’entre elles, située du côté de Barcelone, s’appelle la Porte de Djaca: une autre, voisine de la précédente, s’appelle Achmora; la troisième est celle qu’on nomme la Porte de César, et elle s’étend en longueur à travers la montagne sur un espace de 35 milles; la quatrième est la Porte de Bayonne. Non loin de chacune de ces portes, et des deux côtés (des montagnes), on trouve des villes; ainsi, du côté de la Porte de César, on remarque Pampelune, et, du côté de la Porte de Djaca la ville de ce nom (Jaca).”

The translation is as follows;

“The voyagers travel this distance in more or less 23 days. Bayonne is situated at the extremity of this cape. To leave from there (the shore of) the sea takes up the direction and faces west. It is the Fort of Alfar, of which we come to speak that commences the chain of mountains that runs along the edge of the sea until Bayonne, sometimes moving away from the sea to a distance of a days’ journey and sometimes they come as close as 15 miles. These mountains stretch out without interruption until Bayonne and there they meet the mountains of the Temple of Venus, and their length is 9 days’ journey which we evaluate at 30 miles per day. The mountains of the Temple of Venus are situated at the extremity of the Peninsula of Andalous and they stretch out transversely and close off the space lying between the Dark Sea, or the English Sea and the Mediterranean Sea, that is to say between Bayonne and the lands around Barcelona. These mountains are very high and are called the Pyrenees. They separate Spain and France. The length of these mountains from north to south and by the contours (i.e. the height at which it is possible to walk through them) is 7 days. There are 4 Passes, at the entrance of the defiles which are very narrow there is only space for horses to follow in single file. The actual Passes are large and spacious, but the roads there are dreadful. The one they enter situated on the side of Barcelona is called the Pass of Jaca, another, a neighbour of the first is called Achmora and the third is that called the Pass of Caesar, and it stretches out in length to traverse the mountains for a length of 35 miles. The fourth is the Pass of Bayonne. Not far from them, these passes, and the two sides of the mountains we find the towns in this way. At the side of the Pass of Caesar we note Pamplona and at the side of the Pass of Jaca the town of the same name.”

Thus there is no mention of the Pyrenees being a north/south range, but on the contrary Al-Idrisi clearly states the length as 9 days, that they stretch out transversely and their length north/south is 7 days, but, that that is dependent upon the height at which you traverse the mountains.

However, Al-Idrisi has confused the crossing points, but in name only. There are 4 main passes across the Pyrenees from north to south and they are as follows; on the east going north from Barcelona the pass which would have been in use is the Col des Panissars near Le Perthus which is as already described the junction of the French Via Domitia and the Spanish Via Augusta. The next is the pass north of Jaca which leads to Oloron and Pau in France. The Pamplona route, which Al-Idrisi states is” via the Porte de Cesar” can be either via the Pass of Roncevalles or the coastal route to Bayonne. Al-Idrisi also states “*from Pamplona to Bayonne we follow the coastline for two days journey*” and goes onto state “*the access from one to the other of these two towns is via the Porte de Bayonne which we remark as the highest pass*”.

A remark which follows aids our research, “*the distances of Leon and Burgos to Toledo are 7 days*” and he reiterates that Santiago de Compostella, ‘by the normal route’ is 9 days.

Having described various other distances, Lerida/Tortosa/Tarragona/Barcelona Al-Idrisi states, “*Barcelona possesses a suburb and is defended by strong walls. The access to this town in Spain is via a defile situated in the mountains called the Temple of Venus or in the language of the Christians ‘de Bortoniour’ or Port Vendres (in France)*”. This is at variance to the previous statement, but obviously refers to the Roman Road passes at Le Perthus or the smaller coastal route via Cape Creuz from Port Vendres south into Spain crossing near Cerbere. There is also the possibility of a cross Pyrenees route direct from Banyuls towards Le Perthus which would be easier than the coastal path from Cerbere via Cape Creuz to Barcelona.

Al-Idrisi completes his 5th Climate 1st section with a short description of France from Narbonne, Carcassone and Toulouse north to Angouleme and Cahors and across to the west coast at Bordeaux.

THE SOUTH COAST

The 4th Climate 1st Section covers the Mediterranean coast of the peninsula southwards from Valencia via Cartagena, Almeria, Malaga, Algeciras (Pillars of Hercules) and thence into the Ocean Ténèbreux with Cadiz, Huelva and Cape St Vincent.

The west coast is detailed from Cape St Vincent via Lisbon, Coimbra and Oporto to Cape Finisterre. Having described the provinces of Spain distances around the Detroit are described, particularly from Algeciras, which Al-Idrisi appears to utilize as the Spanish Pillar Of Hercules. Following this, Cape St Vincent and the Church of the Raven are bypassed to describe Lisbon and the west coast of Spain (Portugal).

But at this point Al-Idrisi inserts a story regarding a voyage of exploration undertaken from Lisbon. Paul Lunde in his text, “Pillars of Hercules; Sea of Darkness”, comments as follows; “*even more interesting is Al-Idrisi’s account of an actual voyage of exploration into the western Atlantic, undertaken by 80 brave men from Lisbon who he calls the Maghrourin, best rendered as intrepid explorers. The expedition must have taken place before 1147AD, the date Lisbon fell to the Christians- but it is impossible to be more precise. The Maghrourin were so famous for their exploit that a street in Lisbon was named after them*”. (I have appended access to the complete story given by him in translation).

But the fascinating point is that a voyage from Spain prior to 1147 is incorporated in a text by Al-Idrisi dated to 1153 and perhaps indicates it was either a monumental achievement well known to the Arab world or the data passed very quickly across the Mediterranean Sea. It also belies his description of the Mer Ténèbreux as being impossible to sail on which he has stated on several occasions in his text and could indicate a late addition and give greater weight to a date just prior to 1147.

DETAILED COASTAL DESCRIPTION; MATCHING LAND ROUTES

Diagram cgId2/D17

The 5th Climate 1st Section commences with a description of the whole northern section and then begins the detailed description of the landscape with the west coast of the Peninsula, Portugal, from Lisbon and Coimbra (inland) to Santiago de Compostella. That is followed by the Cape Finisterre/Cape Ortegal to Bayonne section, the North Coastline already described.

SANTIAGO DE COMPOSTELLA

Diagram cgId2/D18

But, why should Santiago De Compostella figure so greatly in this geographical text. Al-Idrisi knew that the Normans were Christians and served the Pope in Rome. In the 9th century the shrine at Santiago became a focus for pilgrims and in the 10th century it was a major pilgrimage site second only to Rome and Jerusalem. The obvious fact being for Europeans it was far easier to walk to. The routes used by these pilgrims were naturally the easiest paths, particularly from France across the Pyrenees. However the Spanish consider the Pyrenees to be a starting point and along the French border there are towns which link to the passes. From Saint-Jean-Pied-de-Port the route leads to the pass of Roncevalles and onto Pamplona. The distance from Roncevalles to Santiago de Compostella via Leon (Legio VII Gemina) is c800KM/500miles. The route from Pau via Oloron Ste-Marie leads over the Col du Somport and south to Jaca before turning west to Pamplona as [diagram cgId2/D18](#) indicates.

The text then changes to a description of the interior of the Peninsula with distances from town to town and a second listing of distances from Toledo as follows; Leon/Toledo, 7 days; Burgos/Toledo, 7 days; Sant-Iago/Toledo by the ordinary route, 9 days; Salamanca/Abila 50 milles and onto Segovia another 50 milles.

The coastal description commences at Tarragona, and from there to Barcelona is given as 50 milles. Then, Barcelona to Carcassonne in France is given as 4 days, and the distances within France to Bordeaux, Cahors and north to the River Loire and La Rochelle are given.

In effect the north-east coast of the Peninsula from Tarragona to Cape Creuz is ignored. This is not surprising as the 5th Climate, 1st Section only comprises 13 pages in French translation, whilst the 4th Climate 1st Section comprises 68 pages.

In the 4th Climate, 1st Section we read; *“De Tortose à Tarracona, 50 milles. Tarragone est une ville juive batie sur les bords de la mer. Ses murs sont marbre, ses edificies beaux et ses tours très-forte. De Tarragone à Barcelone, en se dirigeant vers l’orient, 60 milles.”*

But, in the 5th Climate, 1st Section we read, *“De Tortose à Tarragone des juifs, 45 milles. Tarragone est située sur les bords de la mer et ciente d’une murailles qui se compose de blocs de marbre blanc et noir d’une rare beauté. Cette ville, aujourd’hui florissante, était autre fois dépeuplée à cause de sa situation limitrophe entre les musulmans et les chrétiens. Elle est jolie, mais on y recontre beaucoup de serpents don’t la morsure est dangereuse. Il y a un bon port et de l’eau douce. De là à Barcelone on compte 50 milles.”*

Thus in the 4th Climate we now proceed south-westerly along the coast, passing the River Ebro, Valencia, Denia, Alicante, Cartegena, Almeria and onto Malaga where we are informed Almeria to Malaga by Land is 7 days, but by sea it is 180 milles. Then we have, Malaga to Green Island or Algeciras is 100 milles and Marbella on the route to Algeciras is 40 milles.

Hereafter the coastal description ends and the interior lands around Cordoba and Seville and as far as Cadiz are described.

To continue the description of the coast in a logical manner we must return to the commencement of the 4th Climate 1st Section text where after describing the provinces of southern Spain al-Idrisi has commenced his coastal description at the Green Island of Algeciras and then the Detroit and what we would consider the southern coastline of Spain/Portugal, his 5 Day section of coast.

THE DETROIT, CADIZ AND THE SACRED CAPE Diagrams cgId2/D19 and cgId2/D20

The Detroit is described as being 18 miles across and there is then the original statement, “D’Algéziras à Malaga, 5 journées faibles, c’est-a-dire 100 milles.” We then read the following;

“D’Algéziras à Seville il y a deux routes, l’une par eau, l’autre par terre. Voici la premiere; D’Algéziras à el-Rommal (Les Sables), à l’embouchure de la riviere de Berbat dans la mer ,28 milles: de là à l’embouchure de la riviere de Beka, 6 milles: de là en Detroit de San-Bitar (San Pedro), 12 milles: de là à el-Canatir (les ponts), vis-à-vis la presqu’île de Gades (Cadiz), 12 milles, (la distance entre ces deux points est 6 milles): D’el-Canatir à Rabeta Rota, 8 milles: de là à el-Mesadjid (San Lucar), 6 milles.

Ensuite on remonte le fleuve en passant par Tarbichana (Trebuxêna), el-O’touf (les détours), Cabtour, Cabtal, (Cabtour et Cabtal sont deux villages situés au milieu du fleuve), Djeziret Ienchtalat, Hissn el-Zahar: puis on arrive à Seville. De cette ville à la mer on compte 60 milles.”

From this point the text details the coast from Heulva to Cape St Vincent and finishes as follows; “De là à Chakrach village sur le bord de la mer, 18 milles; de là au cap des Arabes, qui s’avance dans l’Océan, 12 milles; de là à l’église du Corbeau, 7 milles. Cette église est située sur un promontoire qui s’avance dans la mer.”

This area, these capes, are indicated by Claudius Ptolemy as a ‘Cuneus’, a triangular spit of land protruding into the Ocean Ténébreux, and Paulus Orosius actually uses the term to describe them. It is thus evident that Al-Idrisi was not convinced of this protrusion, which is not so very evident on the World Map by Ptolemy and probably that of Marinus the Tyrian. However, it is a geographical fact as diagram [cgId2/D20](#) illustrated, and as is shown on the map of Iberia drawn to Ptolemaic co-ordinates as [cgId2/D08](#). It also illustrates that he did not have an individual map of Spain and did not plot the coastline from the Ptolemaic co-ordinates which were no doubt within his copy of the text.

That is perhaps the most perplexing point of all. If Al-Idrisi had a full copy of the 8 books by Claudius Ptolemy, why did he not make full use of the data contained therein?

CONCLUSION

Diagram cgId2/D21

The text of Al-Idrisi is a tour-de-force in geographical exploration and deserves the highest praise not only for his work but that of Roger 2nd of Sicily in collecting an enormous amount of geographical information to enable the “Book of Roger” to be written.

That Al-Idrisi knew ‘Al-Andalos’ is evident from his writings, although that evidence also points to a good knowledge of the southern half as opposed to an equal knowledge of the northern half; that is Climate 4 and Climate 5 respectively.

Al-Idrisi also had a propensity for using descriptive nouns to illustrate his textual shape of a given country, and this is where he sadly creates unnecessary problems for future researchers. That he described ‘Al-Andalos’ as a triangle when he evidently knew it was only a metaphor, a very poor metaphor in the circumstances, has been simply illustrated by his own text. It is in fact nearly a square in geographical form.

That he correctly identified the Mediterranean Coastline length as 1100 miles and the northwest to southeast diagonal length as 600 miles, is a tribute to the careful measurements by the Roman Geometres and their meticulous recording of the town inter-distances. It also indicates the knowledge extant in 1100CE, which although we still have portions of it, we know not what is lost.

Why he did not choose to use a single method of distance measure is also problematic when the individual routes he describes can be shown to vary considerably in mileage day by day. But in general terms it is obvious the route mileage for the whole of ‘Al-Andalos’ was well known and recorded.

We must also bear in mind that the Christian world was on the cusp of the first crusade and this could not have been a more awkward time for Al-Idrisi, an Arab, and probably accounts for his effusive descriptions of the Christian towns, particularly those of the Normans.

However, the text adds to the sum total of our geographical knowledge of Al-Andalus and is by far the most expansive description available. If only we knew the actual map shape he originally drew?

APPENDIX 1

Diagrams cgId2/D22, cgId2/D23, cgId2/D24 & cgId3/D25

Dr Konrad Miller in his text *Mappae Arabicae* reconstructed the 70 tableaux of Al-Idrisi as a single map, although he used 6 sheets because the overall size is considerable as is discussed in the following text cgId4. Appended here are four pages from the text by Dr Miller, pages 103 to 106 from the second section. He compares the maps of Al-Idrisi and a geographical map but also presents a “perfect” view of his own ideas. The comparison with this text, particularly as Dr Miller appends lines of latitude, which are not possible on the original Tableaux of Al-Idrisi, must be made with this in mind.

APPENDIX 2

Diagrams cgId2/D26, cgId2/D27 and cgId2/28

At the Segon Congrés Català de Geografia, 29-31 de maig de 2008, the following paper appeared. LA PENINSULA IBERICA EN el gran ATLAS DE al-Idrisi, by Juan Piqueras y Ghaleb Fansa of the Departament de Geografia, Universitat de Valencia.

The text is in Spanish and includes diagrams which will aid researchers of the text of Al-Idrisi. The place names of Al-Idrisi are translated where possible and cross referenced to the text of Dr K Miller. The diagrams are here-in appended to aid an understanding of the Iberian Peninsula as Al-Idrisi saw it.

The complete text and diagrams are available on line.

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cgId1; A DESCRIPTION OF L'ANGLETERRE.

cgId2; THE DESCRIPTION OF AL-ANDALOS

cgId3; THE WORLD MAP OF AL-IDRISI.

There will be other short papers on individual countries.

THE 70 (69) MAPS WITHIN THE TEXT OF AL-IDRISI.

They are available on line as follows;

Bibliothèque Nationale de France, Département des Manuscrits, Division Orientale;

Cote: Arabe 2221, Auteur titre, Idrisi, Nuzhat al-Mustaq fi ihtiraq-al-afaq.

Images 1-69 et planche contact 1-8.

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