

ISIDORUS OF SEVILLE (ISIDORUS HISPALENSIS) AND CARTOGRAPHY.

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Abstract

The name of Isidorus of Seville holds a very special place in the history of cartography. He was the first one to create in 600 A.D. the so-called 'wheel map' of the "T-O" type based on the ancient geographic knowledge. The sketch supplemented to the text of "Beginnings and Etymology" depicts the Oycumene in the Biblical traditions. The 'wind rose' with 12 beams made by the Spanish scholar is also interesting.

Only a little more than 500 years ago engraving and printing of maps became possible. The cartographers of nowadays creating the new generation of topical, digital, electronic maps should remember the name of the archbishop of Seville, Isidorus (560-70-636 A.D.) With the general decline of scientific knowledge the church people tried to interpret geographical and cartographic data from the Biblical point of view.

According to the historical geographer from Yaroslavl, Russia, professor Dr. Ditmar (1911-1989), Isidorus of Seville was one of those who systematized the scientific knowledge. /2/ Having studied the classical heritage he put out his own cosmographic and geographic views in accordance with the Biblical traditions. It's worth mentioning that the scholar-encyclopaedist imagined Oycumene as a flat disc with the centre in Jerusalem. As a theoretical basis for this he could have meant the quote from the Bible: "This is Jerusalem, which I have set in the centre of the nations, with countries all around her" (Ezekiel 5:5). (see Figure 1)

While at this titanic work he used the works of Yuli Solin, Marcian Capella, Ambrósius Pheodosius Macrobius which dwelled upon the characteristics of the inhabited part of the earth, the borders and natural features of the Oycumene. /1,3/

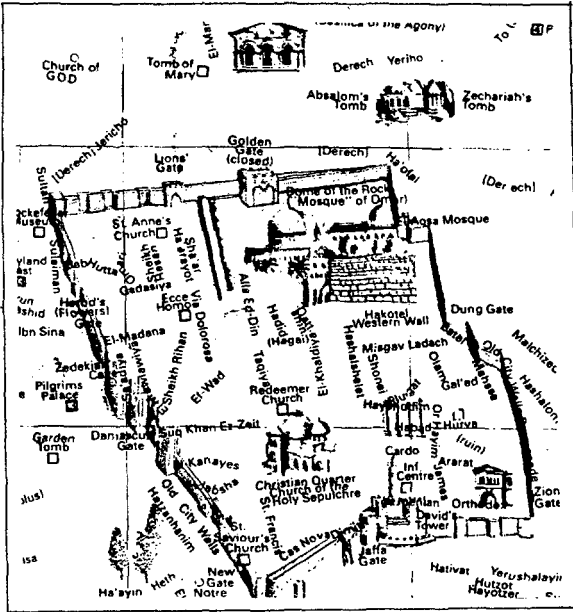


Figure 1. Pictorial map of Jerusalem /9/

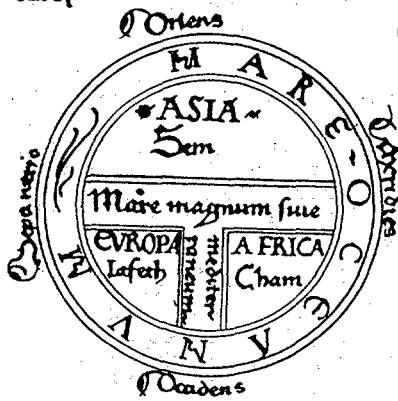
According to E.Preston and G.Martin. the specific feature of that time was the general decline of cartographic art . /7/ The plans of the explored areas compiled earlier were lost (i.e. coastlines). The monks sketching maps in the peace of monasteries included pictures of the "tomb of the God" in Jerusalem. the Paradise with Adam and Eve. That led to the considerable distortion of the continents' coastlines as well as the borders of the then-known countries. /8/

On becoming the Bishop of Seville after his brother's death, Isidorus got interested in studying the world of nature around him and historic past. His works "On the Nature of Things" and "Beginnings and Etymology" actually became encyclopaedias of the time.

Another Russian scholar from Moscow.A.V.Postnikov believes that Isidorus made about 600 A.D.the first so-called 'wheel maps' of the "T-O" type. But they were carved on wood and printed complete with legend only in 1472. Thus. the town of Augsburg at the foot

europa & africa

De Asia & eius partibus O Ca m.



Sia ex noie
 curuldā mu/
 hieris est ap/
 pellata: que apud anti/
 quos imperiu orientis
 tenuit. Nec in tercia or
 bis parte disposita: ab
 oriente ortu solis: a me
 ridie: oceano: ab occiduo
 nostro mari: finitur: a
 septentrione: meotbide
 lacu & tanai: fluuiio: ter
 minatur. Habet autem
 provincias multas: et re

giones: quarū breuiter nomina et situs expediā: sumpto initio
 a paradiso. Paradisus est locus in orientis partibus constitutus: cuius
 vocabulum ex greco in latinum uertitur: ortus. Porro hebraice eden
 dicitur: quod in nostra lingua deliciae interpretatur: quod utrumque
 iunctum facit ortum deliciarum: est enim omni genere ligni & pomiferarum
 arborum confitus habens: etiam lignum uite. Non ibi frigus: non estus:
 sed perpetua aeris temperies: e cuius medio fons prorumpens: totum
 nemus irrigat: ditum hominis aditus interclusus est. Septus est enim
 vndique romphea flammea: id est muro igneo accinctus: ita ut eius
 cum caelo pene iungatur: incendiū. Cherubin quoque id est angelorum
 presidium: arcendis spiritibus malis super romphee flagrantia
 ordinatum est: ut homines flamme: angelos vero malos angeli
 boni submoueat: ne cui carni vel spiritui transgressionis aditus
 paradisi pateat. India uocata ab indo flumine: quo ex parte
 occidentali clauditur. Haec meridiano mari porrecta usque ad
 ortum solis: & a septentrione usque ad montem caucasum peruenit:
 habens gentes multas & oppida: insulam quoque taprobane
 gemmis & elephantibus refertam. Crisam & argiram auro ar
 gentoque secundas: uitilem quoque arboribus solus nunquam
 carentibus: Habet & flumina gangem & nidan & idalpen illustran
 tes indos. Terra indie fauonio spiritu saluberrima. In anno bis

Figure 2. The map of oycumene of the "T-O" type compiled by Isidorus of Seville (about 600 A.D.) and the facsimile of a page from his work.

of the Bavarian Alps became the birthplace of the very first printed map. /5.2.4/

Not going into detail of the text of "Beginnings and Etymology", though very interesting for the historical geography, we'll look at the plan. Oycumene is shown as three continents (Asia, Africa, Europe) surrounded by sea. Asia occupies the eastern, upper part of the circle (signed 'Shem'), Europe occupies the north-western part (signed 'Japheth'), Africa - the south-western part (signed 'Ham'). The continents on this map are separated by a body of water in the shape of 'T' inside the circle. It got the name 'Big and wide mediterranean sea' suggested by Yuli Solin. Isidorus was the first to use this descriptive term as a proper name. /8/ Later they interpreted the horizontal line of the 'T' as the Nile (in the south) and the Tanais (in the north).

The Isidorus' map is east-oriented for the east ('oriens') is depicted in the upper part of the picture. west ('occidens') at the bottom. north ('septentrio') on the left, south ('meridies') on the right. (see Figure 3)

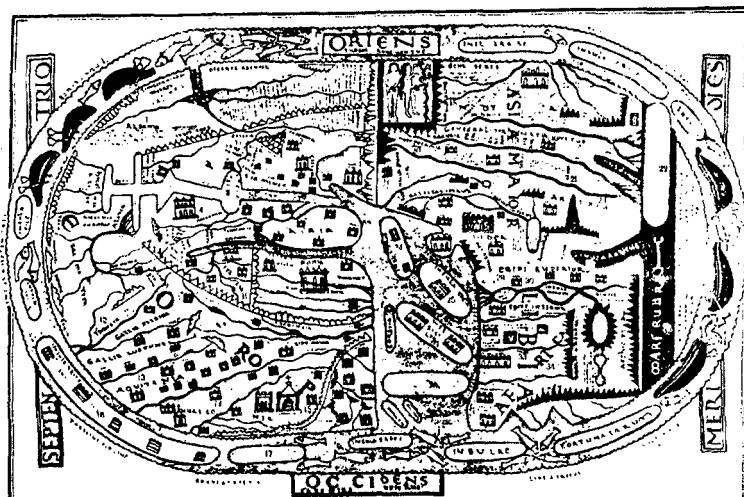


Figure 3. The oval map of the world of the Spanish monk Beatus of Lievan (776 A.D.)

The supplemented oval map of the world made by a Spanish monk Beat of Lievan (776 A.D.). Unlike the round medieval 'wheel maps'-sketches it shows the fourth continent across the South Ocean. /2.7/ The "Etymology" of the Spanish scholar also includes the picture of a 'wind-rose' of 12 beams. The small circle depicts Earth or the whole world (signed 'Cosmos' or 'Mundo'). The space between small and big circles is divided into 12 sectors, where the Greek-Latin names are followed by the wind characteristics. The most important of them are the north wind - Septentrius, or Aparctius, the east wind - Apheliot, south wind - Avstrus, or Notus, western wind - Zephyr.

According to A.B.Ditmar, the greatest explorer of the ancient classical geography in the former USSR, the 'wind-rose' with 12 beams have been borrowed by: Baede the Venerable ("On the Nature of Things").

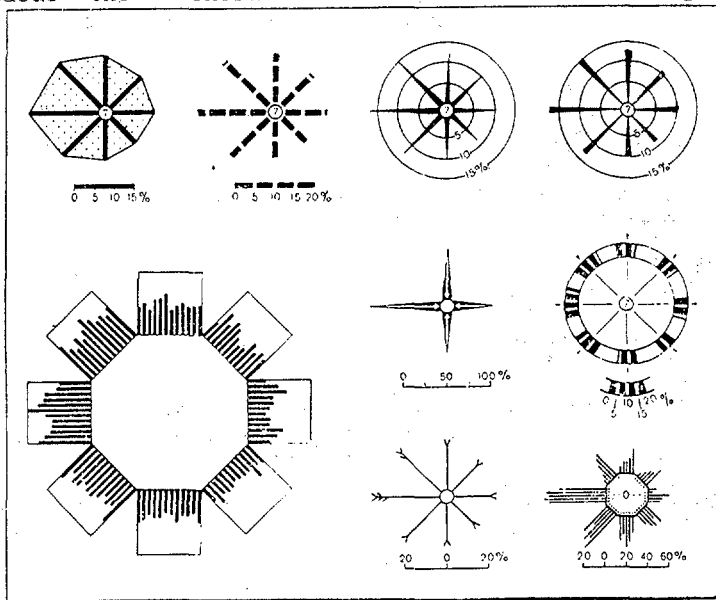


Figure 4. Different types of 'roses' - the diagrammes of repeated directions and values of phenomena.

YII-YIIIc.), Gonorius of Augustodun ("On Depicting the World", XIIc.), Vincent of Bovae ("The Mirror of Nature".XIIc.), Albert the Great in XIIIc. and others, and also described by Piarrre d'Eyeie in his work "The Picture of the World"(1410).

Some manuscripts of IX-X centuries kept in the libraries of Paris, Milan and St.Petersburg are also of great historic interest. "Wind-rose" is widely used nowadays not only in meteorology, but also in economic and social cartography./6/ (see Figure 4)

According to the famous French geographer of the XIX century L.Vivien de-Saint-Martin, geography as well as cartography "in all times and with all nations closely followed the civilization and was, to some extent, the measure of its progress"./1/ In this sense, the works of Isidorus of Seville appear to be a kind of bridge from the medieval geography to the geography and cartography of the modern times.

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