

The cloth of the world. Cultural perception of geographical space in medieval cartography

The world comprises three unequal parts and is in the shape of a circle surrounded on all sides by the ocean. Its history begins in the furthestmost east, in the hidden Garden on Eden, from which spring the sources of the four sacred rivers and from where comes humanity, while its boundary in the west is marked by the Pillars of Hercules. In the north lie lands of “intolerable cold”¹. Warmer lands can be found going south, though no further than the equator – the impassable barrier of heat on this side of the world. In the very centre there is Jerusalem and it is here that the events constituting the climax of history took place. To the right of the holy city we find Europe with its numerous cities, to the left – Africa, a wild land, where the descendants of the biblical Ham settled. This world is also home to many beasts living in water, on land and in the air. When enumerating the peoples inhabiting it, we cannot forget about tribes like the Cynocephali, the Monopods, cannibals and many others, with the most exotic of them inhabiting the areas the furthest removed from the centre.

This description corresponds to the image we can see on a 13th century map of the world. It is so removed from the expectations and geographical knowledge of modern readers that when viewed without prior preparation it can easily fill them with consternation. Not only does it lack some lands and fail to meet the requirements of precise measurements of distances imposed on later cartographic representations, but the very principle on which it is based makes it hard for viewers used to contemporary maps to recognise, without the help of inscriptions, even the outlines of well-known areas, because their appearance is so different.

¹ Inscription in northern Asia on the Hereford Map, after transcription by S.D. Westrem, *The Hereford Map: A Transcription and Translation of the Legends with Commentary*, Turnhout 2001, p. 69, transcription no. 141.

An unknown author wrote some intriguing words on the margins of the great Ebstorf Map of the world: “Mappa dicitur forma. Inde mappa mundi id est forma mundi” (‘Map’ means shape/form, hence a map of the world is the shape/form of the world)². This statement is all the more interesting given the fact that it is the shape that arouses the most serious doubts with regard to the visual side of the maps in question. Deformations of space are sometimes so big that they border on the impossible. Medieval cartographers do not stop at drawing the Nile in two different places³. No one is surprised that a map, which by definition should represent a strip of land in a moderate climate zone (i.e. the only inhabitable one in the northern hemisphere according to common beliefs at the time) has the shape of a circle. There are many more such examples.

We are dealing here with a situation in which the concepts we are used to regarding as fundamental in descriptions of geographical space – lie of the land, size, distance – suddenly turn out to be incompatible. A question, therefore, arises whether, given the loss of these points of reference, the only thing that remains to be done is to explain the strangeness of medieval maps by the ignorance of their authors or whether it is possible to find something that could replace these points? Could the fact that they are pushed to the background be explained by the presence of some other (perhaps more elusive) factor which takes over the main role in the way space is represented? Is the *mappa mundi*, i.e., in one of the possible translations “cloth of the world”⁴, only a chance blend of ideas and myths, or does it hide some inner logic under the colourful anecdote?

An attempt to solve this problem can begin with a closer look and the organisation of space on the analysed representations, including the principles of its division. Medieval maps usually have no lines of political borders. Thus it might seem that what would enable us to distinguish the various areas would be natural barriers, that is seas, rivers or mountain ranges. This may seem to be the case, but when we look more closely, we will see that divisions created in this manner often occur in places other than those we would expect.

For instance, the body of water separating the Asian continent from Africa is the Nile instead of the much larger Red Sea. This means that Egypt, for example, is incorporated into Asia. Modern spectators will be similarly surprised when, looking at the British Hereford map, they will see that the cartographer did not take into account a land link between England and Scotland.

² Inscription on the Ebstorf Map.

³ As one of the “rivers of paradise”, the Nile appears next to the image of the Garden of Eden in Asia.

⁴ The word *mappa*, which began to be used indirectly to describe cartographic documents, has many designata in classical Latin, though it always referred to objects made of cloth (see K. Zalewska-Lorkiewicz, *Ilustrowane mappae mundi. Średniowiecze i początek okresu nowożytnego*, Warsaw 1997, p. 8).

Mountain ranges are drawn schematically, without any attempt being made at reflecting their physical shape; often they are linked at right angle. We see something similar in the case of rivers, the images of which – despite different visuals (soft lines) – are, in fact, just as arbitrary. In reconstructing the process of creating a *mappa mundi* on the basis of the already mentioned Hereford map, Scott D. Westrem notes that rivers were drawn relatively late, only after figural representations were completed, as a result of which their course was adapted to the available space left after illustrations were made⁵. The sizes and shapes of islands, too, often depended on non-geographic factors – in the case of smaller of them the most important thing was to depict them in a way that would make it possible to include all names as well as any additional information in the description.

We can, of course, explain all these misrepresentations and a certain carelessness with which medieval cartographers approached the problem of accuracy of measurements by a lack of information needed to make a detailed map. It seems, however, that we are dealing here with something else as well: without trying to exaggerate the geographical knowledge of those authors, we can observe a certain tendency to transform the image of space, which, irrespective of their knowledge of the world (or its parts), would be associated with opinions about them.

The system of dividing the space and assigning the various elements to specific sets takes into account, in addition to their “adherence”, the presence (or lack thereof) of some common qualities. Using the already mentioned example of Egypt, known mainly from Old Testament events, what should be regarded as the factor facilitating its organic connection to Asia (part of the world associated with sacred history) is the conviction that there was some essential similarity between these areas resulting from the similarities in their history.

Natural barriers like rivers and mountains thus are purely optical borders, which clearly separate various lands from each other. Unlike later maps as well as portolan charts used by sailors, the authors of which made sure the coastlines were recreated as faithfully as possible, the land *mappae mundi* were much more concerned with enumerating all elements of the sets they represented than with faithful reproduction of their borders.

This tendency is so evident that some scholars⁶ even suggest that they could be used as mnemonic tools, as a kind of lists of important items associated with a given location, an observation that seems to be confirmed by the existence among

⁵ See S.D. Westrem, *Making a Mappamundi: The Hereford Map*, http://www.sochistdisc.org/2002_articles/westrem.htm (access: 20 October 2010).

⁶ Naomi Reed Kline (*Maps of Medieval Thought: The Hereford Paradigm*, Woodbridge 2001) writes, for example: “Our consideration of medieval *mappae mundi* is based upon the idea of the circle as a shorthand device for assisting learning and memory, and situates medieval *mappae mundi* within the medieval realm of wheels of memory” (p. 13) See also E. Rodini, “Memory and maps”, [in:] *Trade, Travel, and Exploration in the Middle Ages. An Encyclopedia*, ed. J.B. Friedman, K.M. Figg, New York-London 2000, pp. 392-394.

less detailed representations (usually small codex maps) of groups of objects included in some classifications⁷ under a separate heading of list maps. Their form consisted of just names of geographical areas inscribed into a circle divided into three parts (continents), without any further graphic elements being added.

This observation would support an interpretation whereby the emphasis in the maps in question is put on the content rather than shape. But a question arises to what extent this phenomenon influenced other aspects of medieval cartography – its existence suggests that in addition to its three physical dimensions space has some other features that influence the way it is represented on a map.

Undoubtedly the authors of medieval maps believed that the various regions were of different nature. It is not only about differences with regard to the climate, lie of the land or the fauna and flora, but also some more elusive factors. For there are sacred, blessed spaces, such as Jerusalem, Earthly Paradise or Mount Sinai, and the wondrous (some of them legendary) islands, but also tainted or even cursed places (Babylon, Sodom and Gomorrah, the land of Gog and Magog). Each of the three parts of the world – Asia, Europe and Africa – was also endowed with slightly different qualities.

In representations without a scale, coordinates and cartographic grid, it is these symbolic connotations that serve an important function in structuring the image of the world. Moreover, the contemplative nature of these maps made the symbolic aspect often be brought to the fore. It must be noted here that the vast majority of medieval maps were not maps of travellers, but, rather, a kind of encyclopaedias and, at the same time, objects that were to assist in meditation and encourage a kind of spiritual pilgrimage. An exception can be found in just one group of representations, namely sea charts known in Europe from the 13th century⁸, which, however, as a rule were not maps of the whole world, but of the various bodies of water, and the different character of which was so striking that it was even reflected in language: different words were used to refer to land and sea maps. The noun *mappa*, the direct source of later equivalents of the term “map” in many European languages, refers only to the former, while the latter were called *portalans* or *charts* (Lat. *carta*, -ae like in *carta nautica*)⁹.

As Clive S. Lewis says,

A practical knowledge of geography must have been pretty widely diffused. But it did not, I suspect, exist in the form of maps or even map-like visual images.[...] A map of the whole hemisphere on so small a scale could never have been intended to have any practical use. The cartog-

⁷ See E. Edson, *Mapping Time and Space: How Medieval Mapmakers Viewed Their World*, London 1997, pp. 2-9.

⁸ The oldest known European map of this type, the *Carta Pisana*, dates back to 1275-1300. The exact date of its making is still disputed. The present dating after E. Edson, *The World Map, 1300-1492. The Persistence of Tradition and Transformation*, Baltimore 2007, p. 31.

⁹ This is all the more interesting given the fact that the word *carta*, -ae in medieval Latin denoted a document (usually large-sized). The issue of different names is discussed in greater detail by K. Zalewska-Lorkiewicz, *op. cit.*, pp. 8-9.

rapher wished to make a rich jewel embodying the noble art of cosmography [...]. Sailors themselves may have looked at it with admiration and delight. They were not going to steer by it.¹⁰

If, however, the *mappa mundi* was really considered to be a form of the world, it seems relevant to ask a question about the content contained in it.

They key issue is the conclusion that in the Middle Ages space (including space depicted on medieval maps) was not an axiologically neutral category and this is reflected in the very manner of its representation. As Aaron Gurevich explains, it is “neither abstract nor homogeneous, but is something individual and qualitatively varied. It is not understood as a form preceding experience”¹¹. Cartographers at the time realised that space could be good or evil, sacred or secular, and this feature could be the basic information that should be included in its description. Even the most precise measurement could not convey its qualitative features. This awareness led to the use of a visual form in which sensitivity to these aspects would be reflected. As a result, we get an image imbued not only with information but also with meaning – an image the form and content of which are culturally determined.

We should, therefore, consider what influences the specific assessment of spaces. Firstly, there is the very placement of an area inside the earthly circle, including its location with respect to the geographical directions (medieval maps are usually oriented). Significant distinctions include even those of top-bottom (here Asia is in a particularly privileged position, acquiring doubly positive connotations by virtue of its location in the top part of the map and in the east, which has the best symbolic associations) and left-right (the Biblical right and left hand), though in the case of this last dichotomy we need to bear in mind that in medieval maps we are dealing with a reversal of the right and left side, a fact that will be analysed later. An additional factor is the location with regard to other areas, for all of them depicted on maps are in mutual relations with each other.

This phenomenon can best be illustrated using Jerusalem as an example, for in the case of this city its influence on other elements of the representation is particularly evident. The holy city not only acquires the highest status by being placed in the centre of the representation¹², but also becomes a point of reference with regard to which the properties of all other areas are defined. Jerusalem’s holiness spreads, as it were, radiating to the neighbouring lands. The further from the *axis*

¹⁰ C.S. Lewis, *The Discarded Image: An Introduction to Medieval and Renaissance Literature*, Cambridge University Press 1994, pp. 143-144.

¹¹ A. Gurevich, *Kategorii srednevekovoy kultury*, Polish translation by J. Dancygier, Warsaw 1976, p. 93.

¹² It is worth noting here that, contrary to popular opinion, the custom of placing the holy city in the centre of representation emerged fairly late, for it became popular only after the crusades and the loss of Jerusalem (sic!) in 1244 (see E. Edson, *The World Map...*, p. 21; D. Woodward, “Reality, symbolism, time and space in medieval world maps”, *Annals of the Association of American Geographers* 1985, no. 75 (4), pp. 515-517).

mundi and, at the same time, the closer to the edge of the map, the wilder, harsher, more dangerous the areas that we encounter. It is here, on the peripheries, that we find lands with the most extreme climate, inhabited by mysterious, dangerous creatures, legendary animals and exotic peoples¹³.

The wild nature of these lands is manifested both in the adverse natural conditions and in the customs of peoples inhabiting them. The category of monstrosity used to describe the latter is all the more interesting given the fact that it covers not only bodily deformations of the inhabitants of the peripheries, but also their behaviour, with these aspects being treated separately (for instance, the already mentioned cannibals are regarded as a monstrous race, although their physical appearance does not deviate from the well-known norm). Generally we can say that the areas located far from the centre are full of extremes and anomalies – which, incidentally, placed the authors of the maps in an interesting situation, because they usually came from countries in western Europe, i.e. those represented on maps near the edge of the circle¹⁴.

As has already been mentioned, when we start to read a medieval map, we need to look more closely even at so obvious – it would seem – a category of spatial description as the distinction between the left and right side of the representation. There is a lot of evidence to suggest that they should be recognised in a way contrary to the expectation of modern readers. Just to give some examples, it is worth mentioning here the inscriptions under the images of two hands of Christ on the opposite sides of the Ebstorf map (identified in the inscriptions as, respectively, the Right Hand of God on the left side from the point of view of the reader and the Left Hand of God on the right side) or the logic behind the justification of the superiority of Europe over Africa derived from its location on the right side of the map and the world¹⁵ (an argument seemingly contradicting the experience of someone looking at the map).

In searching for an answer to the question about the cause of this paradox it is worth realising that – firstly – this phenomenon is not limited only to cartographic material, but is also manifested in a broader tendency in religious art¹⁶; secondly,

¹³ Illustrations covering those regions display an interesting similarity to the marginalia in medieval books. The possibility of there being some connections between the two types of images is considered by, for example, A.S. Mittman in his book *Maps and Monsters in Medieval England* (New York-London 2006).

¹⁴ This problem is analysed in greater detail with reference to the British by A.S. Mittman (*ibidem*, especially the chapter “Mapping identity”, pp. 27-44).

¹⁵ “Such an interpretation raised the status of Europe, otherwise located peripherally with respect to the ancient world and the Holy Land, for its place was on the right side of the cross – on the ‘better’ side in accordance with the symbolism of the period, in the place where the Good Thief was crucified on Golgotha” (A. Krawiec, “Globalny obraz nie-globalnego świata. Obraz świata w kartografii uniwersalnej Średniowiecza i Renesansu”, *Kultura, Historia, Globalizacja* 2009, no. 4, <http://www.khg.uni.wroc.pl/?type=artykul&id=38>, access: 13 May 2009).

¹⁶ This was the same principle behind the structure of painting and sculpture scenes (for instance, tympana in the portals of medieval churches) presenting such iconographic themes as the

that maps included the image of Christ, if not in the form of literal representation (inside the earthly circle, like in the Ebstorf Map, or above it, like in the Hereford and Psalter Maps), then in the form of a crucifix placed near Jerusalem or in the form of a cross hidden in the graphic structure of the network of waters and lands¹⁷. This meant that the above-mentioned right hand and left hand could be interpreted not as the right and left hand side of the viewers but that of God looking from the middle of the map. All this shows that when we try to read the visual material immersed in a different historical-cultural context, we should be wary of our own perceptual habits. It is also worth considering the psychological consequences of such a reversal.

Another element determining the character of places is the events associated with them. Once remembered and recorded by sources enjoying some authority (such as the Bible, writings of philosophers and Church Fathers), they are able to define the space where they occurred and leave a permanent mark on the way it is perceived. Without looking far, one of the factors that did leave their mark on the difference in the representation of the three main parts of the world was their interpretation through the history of the flood and strong association with the figures of Noah's sons¹⁸ (Asia – with the eldest Shem, Europe with Japheth, Africa with Ham), whose descendants were to populate them according to the legend.

Talking about medieval maps, we have to realise that they were organically associated with temporality and by definition were documents telling the story of humanity, so much so that Richard of Haldingham, the author of the Hereford Map, did not hesitate to call it “history” (*estorie*)¹⁹. On large maps of the world the vertical (east-west) axis is made the chronological axis on which the history of salvation is depicted, beginning with the original sin in the Garden of Eden

Crucifixion or the Last Judgement (Memling, Van der Weyden, Fra Angelico and others), in which the Good Thief, the gates of paradise and the saved are presented at the right hand of Christ, God the Father or Archangel Michal, and not on the right hand side of the person looking at the image. This reversal can also be noticed in Hieronymus Bosch's famous triptych *The Garden of Earthly Delights* (the placement of the *Paradise* and *Hell*). The presence of this phenomenon – known from religious depictions – in medieval cartography encourages us to consider the connection between these two spheres.

¹⁷ “From the point of view of map symbolism, of particular importance was the association of the letter T [the shape of which people tried to see in the main bodies of water separating the continents – M.M.] with Christ's Cross, thanks to which the division of the Ecumene taken over from the ancient tradition was, in a way, Christianised: the very appearance of the world became a testimony to Redemption” (A. Krawiec, *op. cit.*).

¹⁸ Hence the name of the “map of Noah's sons” we can sometimes see describing the three-part medieval maps (also called T-O maps).

¹⁹ “Tuz ki cest estorie ont Ou oyront ou lirront ou/ueront Prient a ihesu eu deyte De Richard de hal/dingham o de Lafford eyt pite Ki lat fet e compasse/Ki ioie en li seit done” (“Let all who have this history / Or shall hear, or read, or see it, / Pray to Jesus in his Divinity, / To have pity on Richard of Haldingham and Sleafford, / Who made and laid it, / That joy in heaven be granted”, after transcription by S.D. Westrem, *The Hereford Map...*, p. 11, transcription no. 15).

located in the east, through biblical events taking place in Asia and culminating in the Redemption through the Crucifixion and Resurrection, until the unknown end in the west, not letting us forget about the mortal nature of not only humans but also the world²⁰. As we look at these representations, we can understand why David Woodward describes a typical 13th century map of the world as a projection of history within a geographical framework²¹. Many of those scenes included in maps carry moral lessons.

The presence of these warnings and hints left for the onlookers to read lead us to the crucial difference between a medieval and a modern map – while both objects are intended to be a record of information about the world, they not only focus on different aspects of reality (physical form – symbolic content) in pursuing this task, but they also see that reality differently. For the medieval author the map remains a useful tool that can be used to transmit hidden meanings, but in fact it is not the map but the world that is the source of the signs.

Natural wonders, the *mirabilia mundi*, are a testimony to God's infinite possibilities. The system of the most important bodies of water brings to mind the shape of the crucifix, reminding us of Redemption²². Monstrous races warn us about the coming of the Last Judgement²³. Mountains are associated with fear and wilderness and are examples of God's wrath²⁴. Bodily deformations can be external manifestations of the cruelty of customs. The physical is mixed with the spiritual, the human with the animal, the material with the symbolic, the natural with the cultural; the microcosm and the macrocosm are their own mirror images. The world is a work that emerged as a result of God's creation and as such is a harmonious and intentional entity – it makes sense.

Perhaps the difficulty in understanding the way in which medieval culture described nature locked within the borders of geographical space lies in the disregard of the fact pointed out already by Gurevich: the radical opposition of nature and culture was consolidated only in later periods²⁵. In the Middle Ages the natural world was not something external to the human world, and the symbolic content sought in objects belonging to the former was their integral part, because it was not originally given to them by humans but by the Creator himself. A map of the

²⁰ An illustration of this can be found in the letters on the perimeter of the earthly circle of the Hereford Map, placed in separate fields and making up the word MORS.

²¹ D. Woodward, "Medieval mappae mundi", [in:] *The History of Cartography*, ed. J.B. Harley, D. Woodward, Chicago 1987, p. 326.

²² See A. Krawiec, *op. cit.*, footnote 18.

²³ See N.R. Kline, *Maps, Monsters and Misericords: from Creation to Apocalypse*, http://www.leadstinity.ac.uk/departments/english/misericordia/Profane%20Arts%202003/16%20Reed%20Kline,%20Naomi.%20Maps,%20Monsters%20and%20Misericords_from%20creation%20to%20Apocalypse.pdf, p. 178 (access: 4 February 2011).

²⁴ See *ibidem*, p. 182.

²⁵ See A. Gurevich, *op. cit.*, p. 58.

world still presents the truth about the world except that this truth is understood differently.

As the medieval model of constructing maps was replaced by other methods of representation, people gradually forgot the rules governing the images belonging to the old tradition, as a result of which they became less and less intelligible. Therefore, it is not surprising that, as Evelyn Edson puts it, for most of their existence “until the recent revolution in the history of cartography, medieval maps were looked upon as quaint, amusing and quite simply WRONG”²⁶. The basic accusation levelled at these images was their untruthfulness, which was associated with the ignorance and naivety of their authors, an attitude that sometimes led to very harsh criticism²⁷. This view is combined with another conviction, deeply entrenched not only among users of maps but also some theoreticians, that maps are supposedly statements of the actual geographical state of fact obtained by means of neutral technologies²⁸, and thus that there is some objective geographic truth that can be represented impartially by means of maps. As we can easily see, in the light of this conviction the content of the map of the world should generally be the same every time and thus any changes or deviations would imply the existence of a falsified image. This problem is, of course, much broader and does not concern only the Middle Ages, used as an example here, but also any other period.

By regarding our own cartographic representations as “true”, not only do we discredit other images, but we also forget about the conventionality of modern maps. We notice spatial deformations in the old images, without paying much attention to the deformation resulting from applying cartographic projection as we try to represent a three-dimensional object on a flat surface. We see the distortions of scale in the representation of areas of the Holy Land resulting from the recognition of their special role in the history of the world, but we do not compare this phenomenon to the fact that in documents using cartographic projection central areas are presented much more faithfully than, for example, the polar zone (perspective drawing). The custom of marking the Red Sea with scarlet ink seems interesting and peculiar to us, though we do not object to the Yellow River in China being painted blue.

²⁶ E. Edson, Introduction, [in:] *Mapping Time and Space...*, p. VII. For Edson a breakthrough of sorts in the approach to old maps came with the publication of the first volume of a history of cartography (*The History of Cartography*, Chicago 1987) edited by J.B. Harley and D. Woodward.

²⁷ Those who particularly excel at blunt expressions/wording include later 19th century scholars studying the history of the discipline, among them the authors of one of the first monographs devoted to the Hereford Map, W.L. Bevan and H.W. Phillott (*Medieval Geography: An Essay in Illustration of the Hereford Mappa Mundi*, London 1873), who have no qualms about using terms like *peculiar* (with regard to the custom of map orientation, *ibidem*, p. XX), *fault* (p. XXI) or *gross* (p. XXII). R.C. Beazley, too, (*The Dawn of Modern Geography: A History of Exploration and Geographical Science from the Conversion of the Roman Empire to A.D. 900*, Oxford 1906, p. 528) in a well-known passage describes the Hereford and Ebstorf Maps, using the word *monstrosity*.

²⁸ See M. Edney, “Theory and the history of cartography”, *Imago Mundi* 1996, no. 48, p. 187.

When we try to view old maps, using modern criteria and visual habits, without taking into account their specificity, we make a methodological error as historians of culture, and block off the path to reading them, and – no less importantly – we ignore the conventionality of our own representations. Becoming familiar with graphic signs and systems used in a culture, we internalise them so effectively that our knowledge of them allows us to automatically (and perhaps sometimes without thinking) read their message. The difficulty we encounter when we come across a document recorded according to different rules, often contradicting ours, reveals the conventionality of what has hitherto remained on the level of the obvious.

If we stop thinking for a moment about cartographic representations as neutral reports on the state of geographic knowledge, regarding them instead as “material carriers of a mental image”²⁹, we will feel a closer affinity with the concept advocated by John B. Harley, who in his consideration of maps suggests that they be treated primarily as “perspectives on the world at the time of their making”³⁰. This is just one step away from recognising that all methods of representation are culturally determined. Only this reflection allows us to understand the reason why we cannot find our bearings in the world depicted on medieval maps – it is not our world.

²⁹ P. Nejczew, *The Structure of the Map Language*, Gdańsk 1997, p. 1.

³⁰ J.B. Harley, *The New Nature of Maps: Essays in the History of Cartography*, Baltimore 2001, p. 107.