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The Book of Roger

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Medieval Europe

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Tabula Rogeriana (Latin for "Book of Roger) is the name of a publication created by Arab cartographer Muhammad al-Idrisi in 1154 under the guidance of King Roger II of Sicily. The book is recognized for its groundbreaking world map and its accompanying descriptions and information regarding the areas shown in the map. The world map is divided into 70 regional maps, with these divisions dictated by the seven climate zones (originally proposed by Ptolemy) al-Idrisi used for the map along with ten geographical sections (Glick, 2014). The book begins with the southwestern most section, which includes the Canary Islands, to the easternmost section, then proceeds northward until each section has been represented. With each section, al-Idrisi gives textual descriptions of the land in the maps and described the people who were indigenous to those regions. The whole map includes lands from Spain in the east to China in the west, and Scandinavia in the north, down to Africa in the south. Interestingly, the map has an inverted orientation, with Africa depicted at the top of the map and Scandinavia and Britain shown on the bottom. This was common of several maps created by Arab cartographers from this time period. Al-Idrisi's Muslim beliefs are also reflected in this map, as Mecca in the Arabian Peninsula is placed in the center of the map (Glies, 1977).

Muhammad al-Idrisi (born ca. 1100) was an Arabic cartographer from Ceuta, an exclave possession of Spain. His family had held ruling positions in Ceuta for three centuries prior to his birth and held legitimate claims to the caliphate as descendants of

Muhammad. His ancestors were royalty in Malaga until moving to Ceuta after their rule in the former city was ended. Al-Idrisi completed most of his education in Cordoba, located in al-Andalus (Selin, 1997). Cordoba had a rich history as a center of scientific studies in the Islamic world after Abd ar-Rahman II, a former emir of Cordoba, reshaped Cordoban society by instilling a fervor for the sciences in the 9th century (Gerli, 2003). Studying at the University of Cordoba, he was able to have access to many documents on foreign lands that had been collected over time at the institution. Upon completion of his formal education at around age 16, al-Idrisi began his travels, visiting various points in Europe (including England and France), North Africa, and Anatolia (Selin, 1997). His travels into Europe made his experiences unique when compared to those of many other contemporary Arab scholars. It was through his travels that he drifted away from his original enthusiasm for poetry and came to find geography as his true passion in life (Gies, 1977). The question of how Muhammad al-Idrisi found his way to a royal court is an interesting one with no clear answer. Some speculate that his eventual arrival in Sicily was due to his bloodline. There is evidence indicating that he may have been seen as a threat to the elites within the Abbasid Caliphate, as al-Idrisi was a direct descendant of Muhammad and could have held a legitimate claim as caliph. For this reason, he may have been fleeing potential persecution (McColl, 2005).

The creation of this masterful work would not have been possible without the inquisitiveness and determination of King Roger II of Sicily. Roger established a reputation for promoting sciences and eagerly learning about navigation and geography. Al-Idrisi noted of Roger, “the extent of his learning cannot be described. Nor is there any limit to his knowledge of the sciences, so deeply and wisely has he studied them in every particular”

(Gies, 1977). In several ways, Roger's intrigue in the aforementioned fields was fitting for the kingdom he oversaw. Palermo, a city located on the northwestern coast of Sicily and the seat of Roger's throne, was a hub for interactions and exchanges of ideas between travelers of many different professions and backgrounds. In particular, it was a point where Arab and Christian cultures met and created a unique social landscape. This was also due to the domination of Sicily by Arabs from the 8th to 11th centuries and how the island had been turned over into Christian hands less than a century prior to Roger's reign (Houben, 2002). Roger's character was somewhat reflective of this cultural diffusion that took place in Sicily. Although a Norman-French former soldier who came to power in Sicily through conquest, Roger displayed a lifestyle that was more indicative of an eastern ruler. He was even at times referred to as "the half-heathen king" and "the baptized Sultan of Sicily." As news of foreign lands eventually spread from Palermo and other port cities throughout the Kingdom of Sicily, Roger's interest in learning and charting of new areas and potential avenues to newfound wealth piqued. In 1138, Roger invited Muhammad al-Idrisi to his court in order to complete a marvelous project. He instructed al-Idrisi to compose a map that not only accurately marked the locations of all known foreign lands, but also informed the reader of the lands' population, resources, economic makeup, cultures, and customs. In this regard, it would be the first map and accompanying description of its kind. Roger believed that many of the current maps of the world were less practical and more fictitious in nature. Many European maps of this time period displayed Asia, Europe, and Africa as equal in size, displayed Jerusalem in the center, and showed mythological creatures inhabiting uncharted areas. The few practical maps that were circulated were held by navigators, as these maps showed accurate coastlines, bays, and ports. Roger's ambitious

nature led to him pursuing a map as accurate as the contemporary mariners' charts, but with a scope that covered the entire known world (Gies, 1977). While Roger may have used this type of map to help in expanding his Sicilian Empire into northern Africa, it seems to have been a more scientific pursuit than an imperial one (Glick, 2014).

Roger formed a group of geographers and placed himself as the head of the group with al-Idrisi in the second-highest position. One of the initial actions of this circle of geographers was to compare historical geographical works from twelve scholars, ten of whom hailed from the Muslim world. This was partially due to Muslim contributions to geography being generally more useful to the project than past Christian geographical works. The Muslim world was less divided than Christian Europe and helped facilitate long-distance trade within its realm. Many Muslim geographers created "road books" for use on this network of trade that described routes, cities, and other information useful for travelers. Several of the initial twelve scholars named by the group were Muslim geographers who had composed road books (Glies, 1977). However, al-Idrisi may have been most influenced by one of the few non-Muslim scholars from the list: Ptolemy. He drew heavily from Ptolemy's *Geography* in particular, which had designated climate zones that were reflected in the *Tabula* Rogeriana (Bagrow, 2010).

The group, however, was not satisfied with what the findings of these twelve geographers provided. They found inconsistencies between the maps and descriptions of regions and omissions plagued their works at large. In response, Roger sent out agents for this project to the cities of Palermo, Catania, Messina, and Syracuse to question travelers who docked at the ports. Travelers were questioned about many aspects of the nature of the land they visited, including the people who inhabited the region, their culture, the

resources found in the region, any trade taking place in the area, and the infrastructure of regional cities (Glies, 1977). Roger also enlisted the help of palace attendants in this venture, sending them, alongside cartographers, to various regions to gather more information and help complete the project.

At times, al-Idrisi was faced with conflicting reports on foreign lands. When faced with dilemmas such as this one, al-Idrisi erred on the side of caution by removing any geographical assertions that were not unanimously supported by the available evidence. Al-Idrisi also consulted additional historical geographical works by Ptolemy, Ibn Hawqal, Ibn Khurdadhbih, and al-Jayhani to support or scrutinize his findings. The entire project would consume fifteen years of al-Idrisi's life. Al-Idrisi commented that rarely a day would pass without Roger personally consulting with his team of geographers or scrutinizing the data that had been gathered for the project. After the necessary amount of data had been accumulated and verified, the team began putting their findings on a drawing board until the completed map had taken shape. When this prototype had been finished, Roger requested that the map be carved on a large round silver disc. Al-Idrisi and several artisans completed the task, much to Roger's liking. Roger felt that the map was precisely how he had hoped it would be, and because of his satisfaction with al-Idrisi's work, he commissioned al-Idrisi to create another work for him, this one a book on world geography that displayed the summary of findings of the commission's fifteen year efforts. It would be named *Nuzhat al-Mushtaq fi Ikhtiraq al-Afaq* (The Delight of One Who Wishes to Traverse the Regions of the World), or simply referred to as *al-Kitab al-Rujari* (Roger's Book; *Tabula Rogeriana* in Latin). He presented this book to Roger a few weeks before the king's death in 1154. In 1160, a rebellion against William I, Roger's successor, led to the overrunning of the

palace by rebels and the destruction of the silver disc that al-Idrisi had crafted for Roger. A new version of the *Tabula Rogeriana* that al-Idrisi had crafted for William was also lost in the chaos. The rebels had targeted Muslims during the conflict, leading al-Idrisi to flee to North Africa. He would live the remaining years of his life there, dying in ca. 1166. He took the Arabic translation of the *Tabula Rogeriana* with him, however, allowing for his work to live on and reach future scholars such as Ibn Khaldun, who would rely heavily on al-Idrisi's work for his knowledge of the world's geography. While it was able to spread within the Muslim world, it would not be until the 17th century when it would be translated back into Latin for European scholars. As of today, the only extant copies of al-Idrisi's world map are dated from 1192 and are shortened and incomplete versions of the map al-Idrisi had made for William. These copies are housed in libraries worldwide in cities such as Paris, Oxford, and Cairo (Bagrow, 2010).

Compared to its forerunners and contemporary works, the *Tabula Rogeriana* is a beaming light in a vast void of darkness. In the middle ages, there were few attempts at mapping all of known civilization. What few maps that were conceived were not created for entirely useful purposes. European maps were largely created to accompany special ceremonies or dates. What may have hindered any substantial progression in the accuracy of mapping is the nature of how the maps came into existence. Most world maps developed in isolation from one another. Regional maps were also rare and not widespread in use. Unlike modern maps, medieval maps rarely ever were versatile in usage. Most served a single purpose. There were also distinctions between portolan charts that mapped the seas and maps designed for overland travel. T-O maps, types of medieval world maps, were characteristic of European Christian cartographical works. As mentioned before, maps

originating from the Muslim world tended to be more practical than those created in the Christian realm. Aside from road maps, there were several early contributions to geographical understanding, including al-Khwarizmi's *Geography*, completed in ca. 826. His account is largely an updated version of Ptolemy's *Geography* with additional information coming from Byzantine maps and personal findings of al-Khwarizmi. His *Geography*, however, had no map; rather, it was a description of the known world based on several different resources. This is considered the last major Muslim contribution to cartography before al-Idrisi's *Tabula Rogeriana* (Glies, 1977)

The influence of al-Idrisi's work was far-reaching. Through the 16th century, several Muslim cartographers were producing maps based largely on the *Tabula Rogeriana* with information from European sea charts filtered in. The Moroccan explorer Ibn Battuta was heavily influenced by al-Idrisi's work and based much of his own understanding of the world on al-Idrisi's findings (Bagrow, 2010). It is also quite likely that the navigators Marco Polo and Christopher Columbus were well-acquainted with the *Tabula Rogeriana* and used it to some degree for their voyages (Jayyusi, 1992).

The appreciation for the *Tabula Rogeriana* can only be truly felt when one compares al-Idrisi's findings to past, contemporary and even later geographical works. For example, the *Tabula Rogeriana* descriptively details the origin of the Nile River, long before European expeditions located it in the 1800s. The map also shows several cities in the inner portion of Sudan. The Baltic states were also much more accurately depicted than had been done in Ptolemy's *Geography*. It is clear that information regarding the British Isles was effectively gleaned from Sicilian travelers and supplemented by the established connections between Norman England and Norman Sicily, as they are shown with an

improved accuracy when compared with European world maps from the past several centuries. Perhaps most impressive from all of al-Idrisi's studies is his projection of the Earth's circumference at 22,422 miles – an error of 3.6%. In fact, al-Idrisi's estimate of the world's circumference was effectively a culmination of scientific progress on the understanding of the world's latitude since the time of Ptolemy. Several Muslim scholars in particular since Ptolemy have added their own observations to benefit the scientific knowledge of latitude; some of these scholars include al-Khwarizmi, who worked on measuring the length of the Mediterranean and corrected Ptolemy's estimate, and al-Zarqali, who further rectified al-Khwarizmi's approximation (Glies, 1977). The *Tabula Rogeriana*, then, is a watershed document that set the standard for cartography for several centuries. Its mark is felt not only through mapmakers from later centuries, but also through the knowledge that it put forth in the scientific realm and laid the foundation for future scientific advances.

By researching the *Tabula Rogeriana*, I have uncovered many new facets of the medieval history of cartography and have been given a great appreciation for the work al-Idrisi, Roger, and his team of geographers put into creating the first accurate map of the known world. I do wish there were more resources available for the understanding of al-Idrisi's world map, as there seem to be no single-volume accounts of the map that go into full detail of the entire fifteen year process that was undergone to produce this magnificent medieval survey of the world.

Bibliography

Bagrow, L. (2010). *History of Cartography*. Piscataway: Transaction Publishers.

Gerli, E.M., & Armistead, S.G. (2003) *Medieval Iberia*. Abingdon, England: Taylor & Francis Group.

Gies, F.C. (1977, July/August). Al-Idrisi And Roger's Book. *Aramco World Magazine*.

Glick, T.F., Livesey, S., & Wallis, F. (2014). London, England: Routledge.

Houben, H. (2002). *Roger II of Sicily: A Ruler Between East and West*. Cambridge, England: Cambridge University Press.

Jayyusi, S.K., & Marin, M. (1992). *The Legacy of Muslim Spain*. Leiden, Netherlands: Brill Publishers.

McColl, R.W. (2005). *Encyclopedia of World Geography*. New York City: Infobase Publishing.

Selin, H. (1997). *Encyclopaedia of the History of Science, Technology, and Medicine in Non-Westen Cultures*. Berlin, Germany: Springer Science & Business Media.

Appendix