An Ottoman View of the World:

The Kitāb Cihatnīma and Its Cartographic Contexts

On 10 Muharram 1145 AH (3 July 1732), the printing press established by Ibrahim Müteferrika in Constantinople produced its eleventh work: the Kitāb Cihatnīma, or Book of the View of the World. This edition was compiled from a number of sources, though it carried the name of the author, Kitāb C hasher (1609–1657), who had composed the original text in the previous century. The 1732 Cihatnīma presents a view of geographical knowledge of its time, spanning from Anatolia to the frontiers of the New World and Eastern Asia. The volume also provides geographical and historical commentaries on regions of the world, and is accompanied by twenty-seven regional and world maps, as well as a number of charts and diagrams illustrating astronomical concepts.

The care devoted to the publication of this volume likely reflects Ibrahim Müteferrika’s personal interest in cartography, which is well documented and predates both the publication of the Cihatnīma and the establishment of his press in 1732. Several maps were prepared and printed by his hand between 1709 and 1730, including maps of the Sea of Marmara, the Black Sea, Iran, and Egypt; he also may have personally drawn some of the maps and diagrams for his edition of the Cihatnīma (as seen in Figure 6.1, which contains a legend referring to “Ibrahim the Geographer from among the stewards to the Exalted Throne.”). Thus, a study of the Cihatnīma maps and their production may be valuable to those hoping to investigate the motivations of this man and the workings of his press, the first established under imperial auspices in the Muslim world—for we may suppose that the Cihatnīma, with its large number of detailed maps and diagrams, posed a professional challenge to Ibrahim in the early years of his printing operation, and that the creation of this work must have been as much a labor of love as it had been for its original author, Kitāb C hasher.

Much remains to be investigated about the function and importance of cartography within early modern Ottoman society, namely the period spanning from the sixteenth to the eighteenth century. We have evidence suggesting that maps were used in service to the military and bureaucratic needs of the empire, but they also educated and entertained scholars and the elite, and allowed the pious reader to situate himself and his world within a divine order. To some extent, all this was the case before the sixteenth century, where we begin our study. However, the expansion of the empire had a profound impact on Ottoman cartographic practice. Contemporary Ottoman maps from the sixteenth century onward provide tangible evidence of intensified engagement with western European cartographic sources, throwing into...
relief the differing cosmographies, technologies, and understandings of the known world as they were encountered.

Beginning with a survey of Ottoman cartographical activities during the sixteenth and seventeenth centuries (the two centuries prior to the publication of Ibrahim Müteferrika’s Cihannüma), this chapter then proceeds with a limited analysis and contextualization of several maps, particularly of the New World, as included in a printed Cihannüma held in the Lilly Library at Indiana University. These New World maps emphasize the significant role that European maps played in shaping Ottoman cartography. Nonetheless, the Cihannüma maps, like a number of other Ottoman maps from the sixteenth to the eighteenth century, negotiate a wide range of cartographic sources and artistic sensibilities to reflect their views of a changing and complex world.

By the time of Süleyman the Magnificent (r. 1520–1566), the Ottomans had established naval supremacy over much of the Mediterranean. Piri Re’is (1470–1554), an early and prominent Ottoman cartographer, held a dual career as a privateer and officer in the Ottoman navy during this time. He was likely familiar with the portolan chart, a type of map that had developed by the thirteenth century in association with Mediterranean maritime culture. A major distinguishing feature of these charts is a network of rhumb lines coordinating with wind directions, which radiate from intersection points that orbit a hidden center point of the chart. These points are frequently decorated with wind roses. Remnants of these portolan features may be seen in the Cihannüma; for example, the map of Anatolia displays rhumb lines as well as two compass roses that appear to be circling the land (Figure 6.2). Unlike the Anatolia plate, though, portolan charts generally emphasize the Mediterranean and its coasts—as opposed to a specific inland region—as the most common geographical focus of the genre. Harbors and important ports are labeled perpendicular to the shoreline along the inland coasts; the interiors of land masses are usually left blank. Charts appeared individually, in combination with others (covering the Mediterranean in smaller sections), or in conjunction with portolan texts that provided verbal descriptions of relevant features apparently intended to assist navigation.

The few Ottoman portolans that exist today reflect a range of likely functions. Portolan charts and texts in general had practical value in aiding navigation around the Mediterranean (where sailors were always within a relatively short distance from a coast) and were almost surely used on board, but few such examples are extant and Piri Re’is himself acknowledges that a portolan chart alone could not provide all the information necessary for navigation. In addition, most extant Ottoman portolan specimens were beautifully ornamented, suggesting that they were likely prepared as presentation copies, with no navigational function intended. However, even these presentation copies had functional importance as educational tools destined for the libraries of scholars, or as luxury objects cherished by the elite—and such roles were not mutually exclusive. The value of the portolan and its charts in Ottoman circles was clearly not limited to the mariner.

As navigation extended across the oceans during the Age of Discovery (1400–1600), elements of the portolan aesthetic were applied to a number of grand world maps by various Mediterranean cartographers. Fragments of two such portolanesque world maps of Piri Re’is’ exist, both offering significant depictions of the New World. The earlier of the two, from 1513, created an international sensation when it was rediscovered in 1939. The fragment—only one-half or one-third of the original map—shows the Atlantic, portions of the African and South American coasts, and the Caribbean in a highly decorative, presentational style. Numerous legends are scattered around the map, including one that identifies the map’s date and author, and another that cites the author’s map sources. Twenty maps are identified as models, including maps
belonging to Arabs and Portuguese, as well as "a map of Qalunbu."\textsuperscript{71} This last comment, as well as several additional legends marked on the map describing the acquisition of this source, is interpreted as evidence that Piri Re's had access to a map of Columbus, no longer extant and possibly dating from his second voyage (1495-1496).\textsuperscript{72} The hypothesized map of Columbus appears to be of rather dubious accuracy, but the attention Piri Re's devotes to describing its acquisition in a number of legends suggests that his justification for including the Columbus excerpt may have had much to do with the fame of the explorer, whom he specifies discovered the region depicted in his map.\textsuperscript{73}

Piri Re's final major work, the Kitab-i bahriye (Book on Seafaring), has a more clearly established history than either of his world maps, and combines aspects of both the portolan and a related genre, the isolario.\textsuperscript{74} It consists of an atlas of isolario charts joined with a detailed text that guided a mariner around the Mediterranean in the style of a portolan narrative.\textsuperscript{75} Copies exist today in two editions: the first version of 1521, and a second edition of 1526, which Piri Re's report was undertaken at the request of the Grand Vizier İbrahim Paşa (d. 1526) so that a suitably polished copy could be given to the sultan.\textsuperscript{76} The 1526 edition variants are more presentation in style, incorporating additional charts copied in a more elaborate manner, as well as a new introduction and epilogue in verse form. A number of topographical depictions of towns, which frequently bear resemblance to European examples of such town views, are included among the charts of the second version.\textsuperscript{77}

The Kitab-i bahriye apparently was popular. Around ten manuscripts of the second edition and twice that number of the first survive; in all likelihood, a great many more were produced.\textsuperscript{80} In addition, we are told in the introduction to his Kitab-i bahriye that Piri Re's first world map was indeed presented to Sultan Süleyman. However, the 1528 world map appears to have been the last major cartographic project Piri Re's undertook—or at least, the last that has survived. He nonetheless is preeminent as the major figure in Ottoman cartography of the first half of the sixteenth century.

A final observation regarding his work will be particularly relevant to the current study. We have already seen the ways in which Piri Re's embraced the practice of collating multiple sources, including European and Islamic works. In the versified epilogue to the second version of the Kitab-i bahriye, Piri Re's asks that his work "be constantly improved. [I]f those who consult it notice errors and are able to correct [them]—may God reward such masters who have perceived my shortcomings! . . . Since there is no limit to knowledge, who would aspire to such a goal [i.e., to produce a book free of errors]? Is there any science that is finite?"\textsuperscript{82} Even his masterpiece intended for presentation to the sultan was considered a malleable work that could be improved by its exposure to other knowledgeable sources. This topos appears in the writings of other contemporary mapmakers;\textsuperscript{83} both the value accorded to such infinite manipulability—and the practical expectation of it being a commonplace occurrence—resonate in the later Ottoman cartographical works to which we now turn.

Three Ottoman portolan atlases, likely created between 1560 and 1570, as presentation pieces, offer further examples of the Ottoman appropriation of portolan charting techniques.\textsuperscript{84} They have been identified as the Deniz Atlas (Sea Atlas, ca. 1560), the 'Ali Macar Re's Atlas (Atlas of Captain 'Ali the Hungarian, 1567), and the Atlas-i Hümayun (Imperial Atlas, ca. 1570). Each of these atlases consists of between seven and nine portolan charts bound together, without text, progressing from the Black Sea outward toward the rest of the world—roughly as if the oceans were being encountered in a series of concentric circles, radiating out from Constantinople—in approximately the same order.\textsuperscript{85} All three can be characterized as presentational on the basis of the high quality of decoration found in the charts and because they are executed on vellum rather than paper—although as noted above, such luxury objects were not necessarily without practical function. The cartographic style is Italian for all three atlases, although the Deniz Atlas includes a number of large and finely detailed cityscapes.\textsuperscript{86} It has been suggested that at least the Atlas-i Hümayun and the 'Ali Macar Re's Atlas came from the same workshop, although they are not identical.\textsuperscript{87} In his study focusing on the 'Ali Macar Re's Atlas, Svät Soucek theorizes that the drawing of the charts was likely the work of an Italian cartographer—though it is unclear whether the map was drawn in Italy, or by an Italian craftsman employed in Constantinople—\textsuperscript{88} who left the legends and place names blank. These were later provided by an Ottoman naval captain who is identified as 'Ali Macar Re's in a legend included in one of the charts.\textsuperscript{89} In a similar manner, the different decorations for all three atlases may have been added by artists specifically assigned to these commissions.

The world maps of these three Ottoman portolan atlases are worthy of closer examination, as each reveals evidence of close Ottoman cartographic contacts with Europe during the mid-sixteenth century. The world maps included in the Atlas-i Hümayun and the 'Ali Macar Re's Atlas appear either to be the same map or to share the same original source, possibly a derivative of a 1561 world map by the Venetian cartographer Gastaldi (d. 1566).\textsuperscript{90} The world map of the Atlas-i Hümayun orients south, while the orientation of the world map in the 'Ali Macar Re's Atlas remains unclear.\textsuperscript{91} The world map of the Deniz Atlas, the earliest of the three atlases, is markedly different from the Gastaldi derivative noted above. This world map is oriented north, as are the remaining charts in the Deniz Atlas, and it clearly depicts "an older concept of the shape of the continents" than do the Gastaldi-influenced world maps included in the other two atlases.\textsuperscript{92} Whether these similarities provide enough support to suggest that the Deniz Atlas was produced in a different atelier remains unclear. The presence of two such different world map prototypes in atlases appearing within a decade of
each other—atlas that share a number of marked stylistic and formal similarities, and at least two of which may have come from the same atelier—suggest continued interest in the acquisition of new cartographic sources and concepts.

Taken as a group, these lavish presentation atlases provide additional evidence of the significance of the portolan genre in which Piri Reis had worked several decades earlier. Italian influences are present in the form of cartographic style, decoration, and source material, but the precise nature of these influences’ transmission is unclear. Finally, we can discern the mapmakers’ sustained engagement with a variety of cartographic sources and conventions. Such debates continue to unfold in the work of seventeenth-century Ottoman cartographers.

The term “geography” covers a wide range of concepts in Arabic literature, and a full overview of the term, and of the history of Arab-Islamic cartography and geography, is well beyond the scope of this chapter. As some of these geographical traditions bear significance for the Cahannimah under discussion in this section, however, a few comments are necessary. First, it should be observed that within the context of pre-modern Islamic cartography, maps generally appear in association with texts. Broadly speaking, these texts were frequently treatises uniting aspects of history with descriptive geography; maps also appear in conjunction with navigational and cosmographical texts. This relationship between maps and geographical texts was particularly the case with the works produced by geographers of the Baliki school during the course of the tenth century. A number of the cartographic conventions of the Baliki school can be traced through subsequent cartographical practices in the medieval Islamic world, particularly in their application to world maps. These conventions included, most prominently, the placement of Mecca near the center of the world, surrounded by a large body of water called “the encircling ocean” (al-bahr al-mushit), along with the maps’ frequent, though not exclusive, southern orientation.

Before the mid-seventeenth century, a number of Ottoman world maps reflecting various Islamic cartographic conventions were included with Turkish translations of older Islamic geographical and historical texts. Gradually, the world maps included in such works began to demonstrate the influence of European cartographic knowledge, and more rapidly than did the associated texts. In some cases, foreign maps were appropriated for inclusion within these texts with little or no modification; however, other Ottoman authors attempted to absorb the new information provided by European voyages of exploration and place it within a framework of cartographic conventions recognizable to readers familiar with traditional Islamic geographical works.

Direct evidence of specific European sources incorporated into Ottoman cartographical works is rare. However, some is available when looking at the works of the geographer Abu Bakr al-Dimashqi (d. 1690–1690). A copy of Blaeu’s 1661 Atlas Maior (Great Atlas) was presented to the Ottomans in 1668 as a diplomatic gift from the Dutch; al-Dimashqi assisted in the production of a translation of the Atlas Maior into Turkish at the request of Sultan Mehmet IV (r. 1648–1687). The first version of al-Dimashqi’s translation, completed in 1685, filled nine volumes, a fine copy of which is housed in the Topkapı Palace Library in Istanbul (B. 325–333). An abridged version in two volumes was also produced in preparation for military campaigns against Vienna in 1685. The cartographic information conveyed in the world map included in the nine-volume copy is extremely close to that of Blaeu’s Atlas Maior (Figure 6.3). However, al-Dimashqi did not merely translate the information by rote; he also compiled information from a variety of sources to produce his finished version, as has been shown in a detailed comparison of a map of New England appearing in both the original Blaeu edition as well as al-Dimashqi’s reworking. While following the Blaeu form very closely, al-Dimashqi’s map has several examples of toponomy (both older and newer) not found in the Blaeu prototype, suggesting that al-Dimashqi may have used, as some of his supplemental sources, European explorers’ reports, accounts, and coastal surveys. Several copies
of al-Dimashqi’s abbreviated translation survive, suggesting that it may have served as an important mechanism for the transfer of European cartographical knowledge into Ottoman lands.

Additional evidence of the influence of contemporary European cartography can be found in the history of the Cihannüma. Its author, Katib Çelebi (1619–1667), was one of the preeminent scholars of his time. Appointed as a scribe, Katib Çelebi went on a number of Ottoman military campaigns in his youth, including expeditions with the army to Baghdad and Iran. After 1635, he settled in Constantinople, where he devoted his energies to his studies, amassing a noteworthy private library, and writing on a wide variety of topics (including history).44 In a biographical epilogue contained in his 1656 Mızan al-haqq fi ikhtiyar al-abwaqq (The Balance of Truth in the Selection of the Most True), Katib Çelebi recalls that, in 1645, he also developed an interest in cartography: “I turned my attention to the terrestrial globe and outlines of land and sea, for which I had acquired a taste. I learned how the drawing known as ‘chart’ is done; and examined all the illustrated treatises written on the subject, every single one of them.”45 The Cihannüma, a geographical work of grand scope, reflects his “acquired taste” for cartography, as Katib Çelebi drew several maps for the manuscript himself, in addition to copying others.46 As a whole, the book illustrates the variety of influences hinted at in this comment by its author, drawing on sources ranging from travelers’ accounts to the cartographic works of Piri Reis, Ortelius, and Mercator.47

Katib Çelebi described the Cihannüma as “a Turkish book on geography . . . in two parts: the first on the seas, their configurations and their islands; the second on the land, its countries, rivers, mountains, and roads, in alphabetical order, with an account of the new lands discovered since the ninth century of the hijsa.”48 His first version, begun in 1648, concentrated on the rivers, lakes, and lands around the Mediterranean, including Ottoman lands, and followed a cosmographic pattern utilized in medieval Arab works.49 Around this time, though, Katib Çelebi writes that, “as the lands of the infidels are not discussed in Muslim books, I wanted to take the maps from the Frankish Atlas Minor and to have it translated.”50 Collaborating with a Christian convert to Islam, he produced an Ottoman Turkish translation of the Mercator–Hondius Atlas Minor (Small Atlas) entitled Levantı en-nur fi zulmet Atlas Minor, or Flashes of Light on the Darkness of the Atlas Minor (1655).51 Inspired by the work, he began a second version of the Cihannüma in 1654 with coverage expanding to the rest of Asia as far as Japan.52 Katib Çelebi’s work on the Cihannüma thus demonstrates a continuation of trends we have identified in the sixteenth century, albeit expanded to a much greater scale. Chief among these trends appears a keen interest on the part of Ottoman cartographers in seeking out new sources to bring their works to completion, and a particular recognition of the value of selected non-Ottoman sources in filling in the gaps of Ottoman geographical knowledge.53

Katib Çelebi’s translation of the Atlas Minor was finished in 1655, but the Cihannüma was left unfinished. The text published by the Mütteferrıka press in 1732 comprised the second version essayed by Katib Çelebi, supplemented with Mütteferrıka’s “printer’s addendum” (tahdih al-tahobi). The added material included excerpts from al-Dimashqi’s works based on Blaue, as well as updates of the introductory chapters on mathematical and physical geography, geometry, and astronomy.55

Two maps containing depictions of North America—a single plate showing North and South America, and a double-hemisphere world map—will serve as case studies for the present discussion of some cartographic conventions found in the Cihannüma.56 The New World maps, in their depiction of lands that the Ottomans primarily encountered through records of European exploration, serve as graphic zones of contention in which cartographic sources and traditions were by necessity confronted and reconciled.

North and South America appear on a single plate (Figure 6.4). The orientation is north; the projection grid is trapezoidal. California is peninsular. The print has been hand-colored and illuminated with gold.

This map closely resembles a map of the Americas from the Mercator-Hondius Atlas Minor, a reduced-size version of the 1606 Gerardi Mercatoris Atlas sive Cosmographicae.57 The cartography of the Atlas Minor plate follows that of an Americas plate in the earlier work (engraved
by Jodocus Hondius), aside from a loss of some detail owing to the smaller size. The comparable details can be noted in the version of the plate contained in a 1613 French edition of the Atlas sive Cosmographiae (entitled L’Atlas ou Méditations Cosmographiques) housed in the Lilly Library (Figure 6.5). In both maps, the latitudinal and longitudinal boundaries are the same, although the projection grid in the Hondius example differs from that in the Cihannüma plate. The Cihannüma includes the addition of lines for the tropics, which do not appear on the Atlas Minor map. Nonetheless, the coastal outlines of both North and South America are exceptionally similar. The North American river systems noted on the Cihannüma map correspond closely to those of Hondius; the South American rivers are rather different. Fewer islands are shown in the Caribbean of the Cihannüma. Mountains are depicted running northward up the western coast of North America.

The Americas plate from the grand L’Atlas ou Méditations Cosmographiques in the Lilly Library is ornately embellished with a number of ships and an exotic cartouche; the Atlas Minor map ornamentation is more restrained, showing only two ships and two sea monsters in the oceans, with a simple title emblem. In contrast, the decoration of the Cihannüma plate consists of colored borders painted on the coastal outlines, a blue wash on the oceans, and some gold illumination around the borders of the frame and the map’s title block.

Figural imagery on maps has a long history and appears elsewhere in the Cihannüma, most prominently in the depictions of the constellations in the first part of the volume (Figure 6.6). Its absence in the Americas map may emphasize the map’s educational, rather than solely presentational, function—a characteristic which İbrahim Muteferrika may have found attractive in his aim of making information more accessible to an audience interested in cartography.

The Cihannüma Americas map seems to illustrate the most fundamental knowledge about these new worlds in an efficient manner, encumbered by unnecessary ornamentation, which is a clear deviation from the decorative program followed in any number of European exemplars. The Americas plate also contains relatively few place names, particularly on land, when compared to the Hondius maps. As more numerous legends in smaller script appear on other Cihannüma maps (for example, that of Anatolia, Figure 6.2), it seems unlikely that including fewer legends on the Americas plate was anything other than a
THE WORLD MAP

deliberate choice on the part of the publisher. This choice may again support the theory of a primarily educational function for his Cihannîma, in its transmission of only that cartographical knowledge considered absolutely essential for an Ottoman audience—for whom Anatolia was more essential than America.

The world is shown in two hemispheres on a double plate (Figure 6.7). The orientation is north. Surrounding the map are various celestial diagrams. A caption appears in a cartouche along the top of both pages. The plates have been hand-colored and illuminated with gold.

The rather restrained decorative program of this world map is similar to that of the Americas plate. Pink and yellow have been used to outline coasts, and the ocean is washed in blue. Gold illumination edges the round yellow frames of the globes, as well as the borders of the celestial diagrams and the cartouches. There is no excess illustration in the form of ships, sea monsters, and the like.

California is represented as an island on this map, reflecting a widely held misconception that began to appear in maps of the early seventeenth century and extended well into the late eighteenth. This representation is in contrast to the depiction of California and the western coast of North America in the Cihannîma America plate, which is characteristic of those published in the first quarter of the seventeenth century. During the seventeenth and eighteenth centuries, maps were produced with both peninsular and insular depictions of California—sometimes by the same cartographic publishers. For a single atlas to contain examples of conflicting cartography is not without precedent: for instance, an English version of the Mercator-Hondius-Janssonius Atlas published in England in 1636 contains representations of California as peninsular and insular in the very same work (Figures 6.8 and 6.9). Maintaining the discrepancy in the 1732 Cihannîma may have simply reflected fidelity to one of its sources, an earlier manuscript copy of Katib Çelebi’s Cihannîma, or even the very real debate still being entertained regarding the actual shape of California. On a symbolic level, though, such a choice allows the Müteferrika Cihannîma to be situated squarely within the company of its cartographic predecessors: Mercator’s grand atlases and Katib Çelebi’s Cihannîma, which similarly encourage their
readers to engage dialectically with these conflicting views, rather than passively accept a “codified” presentation of the world’s form.

We see plentiful evidence of this attitude elsewhere in the Müteferrika Cihannûma. In the same book, we find the austere depiction of the Americas and the ornate chart of the spheres, probably drawn by Ibrahim Müteferrika himself; the latter prominently features a geocentric cosmography, yet attention is devoted to heliocentric theories as well. A southern-oriented map of Anatolia—jam-packed with legends—is presented alongside a map of the Bosphorus with broad swaths of empty interior, thus looking more like a portolan chart than anything else. Even the world map is offered twice (in what can most properly be described as different frames, rather than different projections), as if to ensure that the reader understands that both means of portrayal are valid.

Ibrahim Müteferrika likely had a range of sources accessible to him when preparing the maps for the 1732 printed Cihannûma, including Katib Çelebi’s autograph copy of the second version of the incomplete Cihannûma (Topkapı Palace Library, Istanbul, R. 1624). In addition, a copy of a Latin Atlas Minor, printed in Arnhem in 1621 (i.e., a Mercator-Hondius Atlas Minor), appears in a list of Ibrahim Müteferrika’s personal possessions, although there is no indication of when he may have acquired it. We also know that Katib Çelebi produced a manuscript translation of the Mercator-Hondius Atlas Minor, so Ibrahim Müteferrika may have had the Katib Çelebi translation and its maps available as an additional source. Finally, Ibrahim Müteferrika used Abu Bakr al-Dimashqi’s works to supplement the unfinished text of the Cihannûma, so presumably al-Dimashqi’s maps (after Blaeu) were available to him as well.

It has been suggested that the world map included in the 1732 Cihannûma is based upon the double-hemisphere world maps of Nicolas Sanson, with the closest match being a 1691 Sanson-Jaillot Atlas nouveau, contenant toutes les parties du monde, a copy of which is located in the Military Museum Library in Istanbul. Figure 6.11 provides a slightly later Sanson map from the Lilly Library’s collection, offering comparable cartographic information. Although there is a resemblance...
between the two maps, the world map of the *Cihannüma* is not a direct copy. A variety of details, such as the shape of the Caspian Sea, the extended eastern point of the Arabian Peninsula, and different islands scattered around the oceans, demonstrate this noticeable divergence. The most blatant difference between the two maps is certainly to be found in the shape of North America, which has a somewhat flattened appearance and what appears to be an extremely prominent St. Lawrence River and Great Lakes system. This particular element of the map is rather crudely drawn when compared to European maps from over a half-century prior, much less to contemporary maps. To suggest that this map is based on a Sanson prototype would make the representation even more curious, as Sanson maps were among the earliest to show five identifiable Great Lakes.  

This world map, however, is nearly congruent to the depiction of the world as included in several contemporary manuscript copies of Katib Celebi’s *Cihannüma*. Sonja Brentjes discusses manuscripts of the *Cihannüma*, including Katib Celebi’s autograph copy, as well as manuscripts of Abu Bakr al-Dimashqij’s translation of Blaeu and subsequent abbreviations of this work. Based on cartographic style and relationships between text and image, she finds evidence of at least two different workshops involved in the production of these manuscript maps. One of these workshops is associated with four separate copies of the *Cihannüma*, of which a 1729 copy may serve as a representative example (Figure 6.12). Several maps in this manuscript, including those of the Americas, Africa, Europe, and Asia, are also very similar to those of the *Cihannüma* printed by Müteferrika in 1732.

The second workshop identified by Brentjes is associated with the production of three manuscripts of Abu Bakr al-Dimashqij’s abbreviated version of the Blaeu *Atlas Maior*. These manuscripts’ maps do not show close similarities with the maps of Ibrahim Müteferrika’s *Cihannüma*. As has been mentioned previously, Müteferrika was content to draw on Abu Bakr al-Dimashqij’s writing for portions of his edition of the *Cihannüma*. Apparently, though, the maps being produced for manuscripts of Abu Bakr al-Dimashqij’s work did not meet Ibrahim Müteferrika’s needs as well as those being used in manuscript copies of Katib Celebi’s work did. Müteferrika’s marked preference for the Katib Celebi-Mercator maps, as opposed to the al-Dimashqij Blaeu maps, is intriguing. The fine copy of al-Dimashqij’s Blaeu translation contains over two hundred maps adapted from a grand, large-scale atlas, and among the many abbreviated editions of his works would have appeared dozens of maps from which Müteferrika might have chosen when identifying maps for inclusion in his edition. Perhaps, echoing the earlier hypothesis regarding Piri Reis’s inclusion of the Columbus excerpt in his 1513 world map, Ibrahim Müteferrika’s selection of cartographic source material was ultimately influenced by a greater regard for the reputation of a particular cartographer (Mercator) or scholar and conduit (Katib Celebi).

Another contemporary manuscript provides a further glimpse into the world of early eighteenth-century cartographers of Constantinople (Topkapı Palace Library, Istanbul, H. 444). It contains a southern-
oriented, double-hemisphere world map associated with a manuscript entitled Kitab-i Čennína fenn el-cogyfya (The Book of the Complete View of the World in the Science of Geography), written by "Kayseri Barou" in 1425/172— the same year as the publication of the Cihan-nína by Ibrahim Müteferrika.23 The text in which this map appears is a Turkish translation of Jacques Robbes's La méthode pour apprendre facilement la géographie, prepared by Bedros Barojian, the Armenian translator for the Dutch embassy in Constantinople.24 The Čennína world map is extremely close in appearance to that included in the fine copy of Ābu Bakr al-Dimashquí's translation of Blaeu's Atlas Major discussed above. It thus appears that the Kayseri Barou/Bedros Baronian manuscript may contain a 172 reproduction of at least one map sourced from al-Dimashquí's adaptation of the Blaeu atlas, albeit with a different author's name attached to it. Again, we can observe here a map of likely European origin — and possibly by way of an earlier Turkish translation — that has been assigned a southern orientation by its Ottoman importers. Its appearance (or perhaps reappearance, if it is indeed a reissue of the al-Dimashquí/Blaeu world map) in manuscript form in such proximity to the publication of the printed Čennína is of interest.

In sum, it appears that around the time of the production of Ibrahim Müteferrika's Kitab Čihannína, at least two workshops producing manuscript maps were operating in Constantinople. They produced maps for geographical works, several manuscript editions of Katib Çelebi's Čihannína among these. Mercator's Atlas Minor may have served as a source for at least some of the Americas maps included in manuscript copies of the Čihannína, and a number of these maps are highly reminiscent of those in the Čihannína issued by the Müteferrika press. A world map frequently included in the manuscripts originating from this workshop is also comparable to that of the Müteferrika Čihannína, especially in its similarly rough depiction of the Great Lakes/St. Lawrence River.

As Brentjes observes, there is a close relationship between these manuscript maps and those of the 1732 printed edition of Katib Çelebi's Čihannína.25 Assuming the Paris manuscript can indeed be dated to 1729, it thus appears possible that the associated Čihannína manuscript workshop was the source of some form of assistance to Ibrahim Müteferrika as he prepared the maps for his printed copy of 1732. However, much like the text, which was collated from a number of additional sources, these manuscript-sourced maps were combined with other maps and diagrams, some specifically created for the printed edition itself.

The overall picture is of a small but active Ottoman cartographic community engaged in a multi-layered debate concerning the depiction of the world around them. Many issues were under consideration, including the appropriate technology for producing these maps and the preference for various cartographic and stylistic traditions, as well as the very shape of the world being depicted. Ibrahim Müteferrika's printed copy of the Čihannína offers only one voice in this dynamic, complex, and evolving field of knowledge. Just as importantly, it provides a vivid portrait of the range of disparate traditions and sources constantly being negotiated by Ottoman cartographers active during the first few decades of the eighteenth century.

It could be argued that the only commonality shared by many of the Ottoman maps produced from the sixteenth to the eighteenth century is that they are essentially translated European works. And to be sure, Ottoman mapmakers relied extensively on imported prototypes during the period under consideration, particularly for geographical information pertaining to the frontiers encountered by western European travelers during the Age of Discovery. However, the reception and application of these sources was neither as passive nor as straightforward as such an assertion would suggest. Ottoman cartographers were visibly wrestling to reconcile this new view of the world with their own knowledge and traditions of mapmaking: from Piri Re's piecing together twenty maps to create "a unique map such as no one has ever produced" to the Anatolia map looking ever southward. The Čihannína published by Ibrahim Müteferrika in 1732 embraces this thriving dialectical tradition in framing the changing world.

APPENDIX 6.1
This appendix provides a complete list of the diagrams and maps included in Katib Çelebi's Kitab Čihannína published by Ibrahim Müteferrika in 1732. (Or 1734, A.M. 1143). All plates appear on unnumbered pages inserted between numbered pages of text. All plates are printed in black-and-white. When available, the name of the engraver or artist is noted.

<table>
<thead>
<tr>
<th>Plate</th>
<th>Subject</th>
<th>Single/Double Page</th>
<th>Location</th>
<th>Map Orientation</th>
<th>Additional Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate 1</td>
<td>Model of a spherical globe</td>
<td>Single page</td>
<td>Between unnumbered table of contents and p. 1</td>
<td>N/A</td>
<td>Ahmed Kirmani</td>
</tr>
<tr>
<td>Plate 2</td>
<td>Geometric shapes and patterns of eclipses</td>
<td>Single page</td>
<td>Between pp. 7 and 8</td>
<td>N/A</td>
<td>Ahmed Kirmani</td>
</tr>
<tr>
<td>Plate 3</td>
<td>The sun, moon, and earth</td>
<td>Single page</td>
<td>Between pp. 23 and 24</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Plate 4</td>
<td>Geocentric diagram of the heavenly spheres, including orbits of the planets and patterns of the ecliptic</td>
<td>Double page</td>
<td>Between pp. 25 and 26</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Plate 5</td>
<td>Enhancement of the heavenly spheres in Plate 4: &quot;according to the theory of Ptolemy&quot;</td>
<td>Double page</td>
<td>Between pp. 27 and 28</td>
<td>N/A</td>
<td>&quot;By the hand of the humble Ibrahim the geographer from among the scribes in the Exalted Throne,&quot; Constantinople, 1820 (1792-1790)</td>
</tr>
<tr>
<td>Plate 6</td>
<td>Constellations</td>
<td>Double page</td>
<td>Between pp. 29 and 30</td>
<td>N/A</td>
<td>Nadir Cihannína</td>
</tr>
<tr>
<td>Plate 7</td>
<td>Orbital charts</td>
<td>Single page</td>
<td>Between pp. 31 and 32</td>
<td>N/A</td>
<td>Ahmed Kirmani</td>
</tr>
</tbody>
</table>
Plates 8–9: Orbital theories, including those according to Tycho Brahe and Copernicus

Plates 10–11: Clusters and charts of the climates

Plates 12–13: The climates, showing cardinal directions and the names of the winds in various languages, including Arabic and roughly transliterated European languages

Plates 14–15: A collection of circular diagrams showing cardinal directions and the names of the winds in various languages, including Arabic and roughly transliterated European languages

Plates 16–17: The world map on oval projection grid

Plates 18–19: The world map on oval projection grid

Plates 20–21: The world map on oval projection grid

Plates 22–23: The world map on oval projection grid

Plates 24–25: The world map on oval projection grid

Plates 26–27: The world map on oval projection grid

Plates 28–29: The world map on oval projection grid

Plates 30–31: The world map on oval projection grid

Plates 32–33: The world map on oval projection grid

Plates 34–35: The world map on oval projection grid

Plates 36–37: The world map on oval projection grid

Plates 38–39: The world map on oval projection grid

Plates 40–41: The world map on oval projection grid

Additional Notes:


3. Ghazi Alkye, "Al-Ma'arif of the Turks," Encyclopedia of Islam, vol. 1 (eds. Richert E.J., 1996), 800, provides the following dates: Marmara map, 1572; Marmara map, 1572; Istanbul map, 1572–73; Istanbul map, 1572–73. These maps' ornamental style appears to be similar to that of the Ghusansams, although they are larger in size and appear to contain more detailed cartographic data. For further information, see Ulrike Ehrhard, "Two Maps Printed by Ibrahim Mufidh al-Farsi in 1572 and 1573," Muslim World 75 (1985): 46–66.

4. Leo Bagrow and J. A. Schott, History of Cartography (Cambridge, Mass.: Harvard University Press, 1951), 213. This book contains forty tables and maps, two of them (Azerbaijan and Anatolia) by Abu Bakr al-Dimashqi, and one (the Bosphorus) (Figure 6.2), probably by Ibrahim himself. The other maps were copied, chiefly from the "H用地." No further supporting evidence is offered, and I remain uncertain as to the authorship of the work.

5. Alain T. Karamanski, "Military, Administrative, and Scholastic Maps and Plans," in The History of Cartography, vol. 2, book 1, Cartography in the Traditional Islamic and South Asian Societies, ed. J. B. Harley and David Woodward (Chicago: University of Chicago Press, 1987), 193. Despite heated debate about the origin of these maps and their place of production, it has been suggested that the portolan genre can be considered an indigenous Mediterranean product, "not unique to any one culture or area but which emerged as a result of the diverse range of traditions which took place between these cultures" (Bronte, Tracing Territories, 308–307).


7. On possible navigational practices, see E. 496–501 regarding the scrutiny of surviving examples of charts used for navigation, see E. 496–501.

8. See E. 26–30. The 1197 fragment, though smaller and of more sober ornamentation, also depicts newly explored territories, including Europe and the coats of Newfoundland and Greenland. It is intriguing that the only remaining portions of Port-Rei’s world map which are of interest are those which have been housed in the Topkapi Palace Library, preserve information about the New World. Both portions also include captions.

EMILY JOSS

AN OTTOMAN VIEW OF THE WORLD

275
In the late 18th and early 19th centuries, many European cartographers, including Alexander von Humboldt, contributed to the mapping of the Middle East and North Africa. Humboldt's work, "Cosmographie Universelle," published in 1817, included maps of the region that were based on extensive travels and research.

For a detailed treatment of early maps, see Thomas D. Goodrich, "The Earliest Ottoman Maritime Atlas," in "The World's First Navigable Charts," ed. W. E. H. Lecky, 1908. Goodrich suggests that the Ottoman cartographers of the time were influenced by European map-making traditions, particularly those of the Dutch and the French. He notes that many of the early Ottoman maps were created in response to the needs of the military and the administration, and that they were often produced in collaboration with European cartographers.

In the 19th century, the Ottoman Empire began to adopt more Western cartographic practices, and many Ottoman maps are now considered to be among the most accurate and detailed of their time. However, it is important to remember that these maps were created in a different cultural and historical context, and that they reflect the priorities and beliefs of the time.


In conclusion, the Ottoman Empire played a significant role in the development of cartography in the Middle East and North Africa, and its maps continue to be studied and admired for their accuracy and detail. However, it is important to approach these maps with a critical eye, and to consider the cultural and historical context in which they were created.

For further reading, see the following works:

at different times, particularly those from Venice in the 16th and Dutch maps in the 17th century.


57. Such discrepancies occur elsewhere in Ottoman geographical literature. A number of examples of manuscript copies of the Tarbi‘i ‘Ilm al-Ghari‘ib (The Gift of the Elders to Naval Campaigns) (ibid., 152-153), and the Tarbi‘i ‘Ilm al-Gharn (The History of the West Indies) (ibid., 156-157) are of particular note.

58. In keeping with the geographic and religious themes of the Ottoman world, maps were also used as a means to promote the religious and cultural values of the empire.


60. A comment on coloring schemes for maps is included in the introduction to the printed Tarbi‘i ‘Ilm al-Gharn (ibid., 70). The yellow represents the continent, the Hyle red spots are islands, and the white shows the water.

61. These maps were not only informative but also served as propaganda tools to promote the Ottoman Empire.

62. These two maps raise interesting questions about cartographic sources. They are the last two maps in the Chinthemonia, contained in the portion of the text in which the author of the Atlas Minor (ibid., 49, and 48-49).

63. These maps were not only informative but also served as propaganda tools to promote the Ottoman Empire.

64. Seymour Schwartz, The Mapmaking of America (Bristol, Connecticut: University of Rochester Press, 2003), pp. 145-146 and 152-153. Boris Isakov Polk, The Island of California: A History of the Myth (Lincoln: University of Nebraska Press, 1997) provides a detailed analysis of the development of this legend, which can be traced to the Spanish voyages to the California in the 16th century. Cartographic uncertainty combined with romanticism and political expediency continued to nurture the myth. It was legally less problematic among the European powers for explorers to lay claim to an area rather than to a portion of a continent (ibid., 128-129). Polk also points out that the name "California" predates the actual discovery of the land.

65. "It appears in a Spanish romance and refers to a mythical land entirely populated by women, presumably because of its fertility. This legend was later incorporated into the idea of the Golden State, and it has been perpetuated in popular culture.

66. Some discrepancies occur elsewhere in Ottoman geographical literature. A number of examples of manuscript copies of the Tarbi‘i ‘Ilm al-Gharn (The Gift of the Elders to Naval Campaigns) (ibid., 152-153), and the Tarbi‘i ‘Ilm al-Gharn (The History of the West Indies) (ibid., 156-157) are of particular note.

67. In keeping with the geographic and religious themes of the Ottoman world, maps were also used as a means to promote the religious and cultural values of the empire.

68. The}}