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İSAM 

Searchin' his eyes, lookin' for traces:
**Piri Reis' World Map of 1513 & its Islamic
Iconographic Connections (A Reading Through
Bağdat 334 and Proust)***

*Karen Pinto***

Gözlerine Bakmak, İzler Aramak: *Piri Reis'in 1513 Tarihli Dünya Haritası ve Onun İslâm İkonografisi ile İlişkileri (Bağdat 334 ve Proust Üzerinden Bir Okuma)*

Özet ■ Osmanlı korsanı (sonradan amirali) Muhiddin Piri, yani Piri Reis'in 1513 tarihli dünya haritasından geriye kalan ve Atlantik Okyanusu ile Yeni Dünya'yı betimleyen kısım, haritacılık tarihinin en ünlü ve tartışmalı haritalarından biri sayılır. 1929'da Topkapı Sarayı'nda bulunmasından beri, bu erken modern Osmanlı haritası, kaynak ve kökeni hakkında şaşkıncı soruların ortaya atılmasına sebep olmuştur. Bazı araştırmacılar, kadim deniz kralları ya da uzaydan gelen yabancıların haritanın asli yaratıcıları olduğunu söylerken, diğerleri Kolomb'un kendi haritası ve erken Rönesans haritacılarına bağladılar boşa çıkan ümitlerini. Cevap verilmeden kalan bir soru da, İslâm haritacılığının Piri Reis'in çalışmalarını nasıl etkilediği. Bu makale, klasik İslâm haritacılık geleneği ile Piri Reis'in haritası arasındaki bugüne kadar fark edilmemiş ikonografik ilişkileri gözler önüne seriyor.

Anahtar kelimeler: Piri Reis, Piri Reis'in 1513 tarihli dünya haritası, Osmanlı haritacılığı, İslâm dünyasında haritacılık, *Acâ'ibü'l-mablukat* geleneği, İslâm dünyasında elyazması süslemeciliği.

When a man is asleep, he has in a circle round him the chain of the hours, the sequence of the years, the order of the heavenly host. Instinctively when he awakes, he looks

* Dedicated to a wonderful scholar, mentor, and friend: Thomas Goodrich. What could be more appropriate than to dedicate an article on Piri Reis to the doyen of *Kitab-i Hind-i Garbi* and one of Piri Reis' biggest fans. Without Tom's encouragement and support I would not have dared to tackle Piri. He supplied me with materials from his own private collection and promptly responded to every query. *Shukran ya Tom* for being such a generous sharer of scholarly knowledge, books, maps, and kindness! *Sonsuz minnetle*. Thanks also to my readers Devon Richards, Lisa Portmess, and the students of my Spring 2012 Ottoman History class, especially John Sovich and Samuel Gilvarg, who provided feedback on this article.

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to these, and in an instant reads off his own position on the earth's surface and the amount of time that has elapsed during his slumbers; but this ordered procession is apt to grow confused, and to break its ranks.

Marcel Proust, *Remembrance of Things Past*.¹

As when we sleep so when we write, we have in our minds a galaxy of things seen—those remembered and those not. Documented in our prescribed modern way through detailed and copious footnotes, some of these sources spill out onto paper for all to see. Other influences remain unacknowledged, either because we forgot to mention them or because we had so many references that our editors required us to chop a few.² In subliminal levels of thought, influencing our work, a myriad unacknowledged images lurk.

Mapmakers are writers too. Instead of words they use lines and keys and toponyms and symbolic codes. Sometimes to copyright their work they will incorporate a non-existent place or road into their map and use this as a safeguard against plagiarism. For the most part, maps leave no room for footnotes nor the acknowledgement of sources, and yet the mapmaker must have called upon a host of sources—hidden and acknowledged—for his map. How can we identify sources of influence when the mapmaker in question lived in the late fifteenth and early sixteenth-century and left behind only a vague hint of his sources?

One option is to look for iconographic traces on the maps of influences swirling around the cartographer. To do this we need to search the extant record from the period to see if we can spot what the cartographer saw. We need to look at the reflections in the cartographer's eyes of books, manuscripts, maps, and other objects of material culture that s/he may have seen or owned. Never is the replication exact. There is no such thing as an exact, essential copy.³ Maps are based on refractions of external sources whose influences can be discerned through the examination of shapes, forms, and embellishments. In decoration we can give free flight to our artistic imagination. We are at liberty to harness images from the galleries swirling around us: a bird here and a monkey there, a mountain and

1 Marcel Proust, *Remembrance of Things Past*, trans. C. K. Scott Moncrieff (New York: Random House, 1934), 4.

2 There are some authors who seem to have aversion to unpublished material, such as, doctoral dissertations even though it is clear from their texts that they have consulted them. And, then there are those, such as F. Babinger, the famous biographer of *Mehmed the Conqueror* who dispensed with the citation requirements altogether and published a massive 600-page tome *Mehmed de Eroberer und seine Zeit* (Munich: F. Bruckmann, 1953) without a single footnote.

3 Norman Bryson, *Vision and Painting: The Logic of the Gaze* (New Haven: Yale University Press, 1983), 13-35.

a headless Blemmye,⁴ a ship, its flag and sail. All these must be seen as traces of subliminal influences on the cartographer—what he saw and expressed in variant yet subtly related forms upon the surface of the map that he was creating.

I mean the life of the mind. Doubtless it makes in us an imperceptible progress, and the truths which have changed for us its meaning and its aspect, which have opened new paths before our feet, we had for long been preparing for their discovery; from the date, from the minute when they became apparent. The flowers which played then among the grass, the water which rippled past in the sunshine, the whole landscape which served as environment to their apparition lingers around the memory of them still with its unconscious or unheeding air; and, certainly, when they were slowly scrutinised by this humble passer-by, by this dreaming child—as the face of a king is scrutinised by a petitioner lost in the crowd—that scrap of nature, that corner of a garden could never suppose that it would be thanks to him that they would be elected to survive in all their most ephemeral details.⁵

“Searchin’ his eyes, lookin’ for traces” attempts to do just that with the Ottoman naval Admiral Piri Reis’ World Map of 1513. This map, which shows us parts of South America, West Africa, and Europe—Antarctica too if you agree with the theory about extraterrestrial technology, is incomplete (estimated at one-half or one-third of the original work).⁶ Following its discovery at Topkapı Palace in 1929 by Adolf Deissmann and Paul Kahle,⁷ it generated widespread debate regarding its origins.⁸ Some authors have posited ancient sea kings and aliens

4 Fictional race of headless monsters said by Pliny the Elder to live in East Africa. They are a regular feature on large European mappamundi from the twelfth century onwards. Piri Reis depicts a Blemmye on his world map along with a monkey amidst mountains against a backdrop of the Atlantic Ocean dotted with flagged ships.

5 Proust, *Remembrance*, 141.

6 Svat Soucek, *Piri Reis and Turkish Mapmaking After Columbus*, Studies in the Khalili Collection, Vol. II, (London: Nour Foundation, Azimuth Editions, and Oxford University Press, 1996), 22; later in the book (60), Soucek clearly asserts that two-thirds of the map showing the so-called pre-Columbian “old world” is lost.

7 Reportedly the discovery cost the staff at Topkapı Palace their favorite tablecloth! This sounds like hyperbole to make the story of its discovery interesting. Soucek reports that Afetinan said this during her 1983 speech at the Piri Reis symposium in Galipolli, June 1983; Soucek, *Turkish Mapmaking*, 105. See also, A. Afetinan, *Life and Works of the Turkish Admiral: Piri Reis. The Oldest Map of America, Drawn by Piri Reis*, tr. Leman Yolaç (Ankara: Türk Tarih Kurumu, 1954), 3. Celal Şengör disputes Afetinan’s work as low-grade and argues persuasively against the claim that Halil Eldem discovered the map. See, Şengör, “Piri Reis’in 1513 Tarihli Haritasını Kim Buldu?” *International Piri Reis Symposium* (Istanbul: Hidrografi ve Oşinografi Dairesi Başkanlığı, 2004), 50-75.

8 A Google search on Piri Reis, for instance, turns up more than one million hits! This is surprising in the context of Middle Eastern cartography, which usually receives limited attention.

PİRİ REİS' WORLD MAP OF 1513



Figure 1: Istanbul, Topkapı Sarayı Kütüphanesi [TKS], Revan 1663m: Piri Reis World Map of 1513 (919 AH), Parchment, 90 x 63 cm; courtesy of the Topkapı Sarayı Kütüphanesi.

from outer space as the original creators;⁹ while the influence of Columbus' own map and early Renaissance cartographers tantalized others. One question that remains unanswered is the influence of local Middle Eastern traditions on this map. In this paper, I will present hitherto unmentioned iconographical connections between the classical Islamic mapping tradition and the Piri Reis map.

Reading the iconography of flora and fauna (human beings included), this paper points to one possible medieval Islamic map manuscript that Piri Reis may have consulted while making his map. What we see on the 1513 map are traces of transformed images that Piri Reis saw elsewhere, subsequently refracted through the lens of his eyes, his mind, and his drawing hand.

As the 1,210,000 Google hits on Piri Reis suggest, this map-making Ottoman admiral of the early sixteenth century is today even more famous than the Sultan who hanged him.¹⁰ Such is the revenge of history. Countless intrigued

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- 9 Charles Hapgood, *Maps of the Ancient Sea Kings* (Philadelphia: Chilton Company and Toronto: Ambassador Books, Ltd., 1966) picked up and popularized amongst millions of readers by Erich von Däniken in *Chariots of the Gods* (Econ-Verlag GMBH, 1968). Followed up by Allan W. Eckert's novel *The Hab Theory* (Boston: Little Brown & Co., 1976), in which he claims that mammoths were quick frozen like orange juice! For a very good article discussing these and other strange alien theories involving the Piri Reis map see, Paul F. Hoye and Paul Lunde, "Piri Reis and the Hapgood Hypotheses," in *Saudi Aramco* 31/1 (Jan/Feb 1980): 18-31.
- 10 This is even the case after accounting for all possible variations of spelling Süleyman. Whereas I tried no variant spellings in the case of Piri Reis. Readers should note that I am not referring to quality of writing here, just assessing numbers and gauging worldwide interest in Piri Reis and his work. In fact, the surprising conclusion of a literature survey on Piri Reis and his 1513 map is that only a limited portion of the secondary literature on the subject is of high quality. Other than the early work of Paul Kahle, *Die verschollene Columbus-Karte von 1498 in einer türkischen Weltkarte von 1513* (Berlin and Leipzig: Walter de Gruyter & Co., 1933) [itself incomplete in places because of its early publication very soon after the original discovery in 1929], A. Afetinan, *Life and Works of the Turkish Admiral*, and A. Afetinan, *Piri Reis'in Hayatı ve Eserleri: Amerika'nın en Eski Haritaları* (Ankara: Türk Tarih Kurumu, 1974) there are no other full length books on the subject of Piri Reis until the work of Svat Soucek, *Turkish Mapmaking*, and Greg McIntosh, *The Piri Reis Map of 1513* (Athens and London: University of Georgia Press, 2000), who does a valiant job of place-name historiography. (It should be mentioned that the 1954 English translation of Afetinan's book should be used with care and readers are better served referring to the 1974 Turkish publication.) Other than these, there are partial but very useful discussions in books, such as, İbrahim Hakkı, *Topkapı Sarayında: Deri Üzerine Yapılmış Eski Haritalar...* (Istanbul: Ülkü Basımevi, 1936), 5-129; and A. Adivar, *Osmanlı Türklerinde İlim* (Istanbul: Remzi Kitabevi, 1970), 65-80. The latter are out-of-date, especially the Hakkı book, the title of which mistakenly implies that all the listings are maps on skin whereas many, such as the Greek Ptolemy copies dating to the Byzantine period are on paper. The Hakkı book is useful, however, for translations from Ottoman Turkish into modern Turkish. Other key articles include Cengiz Orhunlu, "Hint Kapitanlığı ve Piri Reis," *Belleten* 34 (1970): 235-254; Andrew Hess, "Piri Reis and the Ottoman Response to the Voyages of Discovery," *Terrae Incognita* 6

scholars and dilettantes have poured over the outlines of his maps. What did he intend right at the tip of South America? Was it Tierra del Fuego or Antarctica? Many people wonder how an Ottoman mariner of the early sixteenth century who never made the journey himself could have figured out the shape of South America so precisely. Some go so far as to argue that he must have been using special maps left behind by an alien race before the last Ice Age—the most recent time in human history that the coastline of Antarctica was not covered by ice and was therefore visible.

Historians of cartography seek to understand what maps could have influenced Piri Reis' 1513 map that has no exact replica anywhere. Piri Reis himself was somewhat helpful in this matter. He did what cartographers today rarely do, although his practice was not uncommon for portolan mapmakers of his time, he scattered notes and explanations throughout his map.¹¹ These range from detailed information on sources he consulted, to bizarre tidbits that scholars are still trying to decipher. Of particular interest are his detailed comments on Christopher Columbus (whom he refers to as Qulünbü) and his voyage of discovery to the New World, such as, the very long notation located in the South American landmass in the approximate present day region of Peru, Bolivia, and the interior of Brazil (see Figure 1). In this text Piri Reis narrates the story as he heard it from a Spanish slave, of his late uncle Kemal Reis, who claimed to have accompanied Columbus on three voyages to the Americas. The story tells us that Columbus managed to convince the King of Spain to give him some ships to test out his idea that there was more than just mist and darkness and an endless Encircling Sea out in the area of the Western Ocean.¹²

Not surprisingly, Columbus aficionados have a special interest in this map since none of Columbus' own maps are extant. This interest led to a search for the sources of Piri Reis' map in the hope of better understanding the sources of Columbus' missing map. Scholars have, in other words, applied the same

(1974): 19-37; and Sevim Tekeli, "The Map of America by Piri Reis," *Erdem* 1:3 (1985): 673-83. The best bibliographies are to be found in Soucek, *Turkish Mapmaking*, and McIntosh, *Piri Reis Map*. See also the articles in *International Piri Reis Symposium* (Istanbul: Hidrografi ve Oşinografi Dairesi Başkanlığı, 2004).

11 The word portolan has a confused linguistic history. It is derived from the Italian word *portolano*, which referred originally to written sailing directions. Eventually it came to refer to marine charts with rthumb lines. In order to avoid confusion, 'portolan charts' is used in contradistinction to *portolani*. See, Tony Campbell, "Portolan Charts from the Late Thirteenth Century to 1500," in *The History of Cartography*, vol. 1, eds., J. B. Harley and David Woodward (Chicago: University of Chicago Press, 1992), 375.

12 Thomas Goodrich's translation from McIntosh, *Piri Reis Map*, 70; see also, Soucek, *Turkish Mapmaking*, 58-9;

investigation that I am proposing in this paper to the Piri Reis map, with one crucial difference: they were trying to see what Columbus saw.¹³

Discussions on which European map, globe, and Portolan chart Piri Reis consulted are extensive. Almost every article and book on Piri Reis and his map raises its own special set of European cartographic possibilities. One such map is the Cantino Planisphere of 1505 by the Genoese Nicholas Canerio or Cauerio.¹⁴ Beyond the resemblance of coastlines, what is immediately clear is that the iconographic palettes of the Cantino and Piri Reis maps are completely different.

Another popular comparison is the Juan de la Cosa map of 1500, which is regarded as the earliest depiction of the Americas.¹⁵ De la Cosa took part in Columbus' second voyage and joined other expeditions. The layout of kings and castles in West Africa present closer parallels with the figures on the Piri Reis map, although it is clear that the painterly tradition is strikingly different. On the de la Cosa map these kings, carrying crescent-marked flags signifying their 'Muslimness,' are all noticeably lily white whereas the kings depicted on the Piri Reis maps are dark skinned. Starkly different in iconographic vocabulary is de la Cosa's depiction of the newly discovered American continent as a lush, verdant green space punctuated by numerous rivers, with no hint of strange monsters and frightening creatures. This is in direct contrast to Piri Reis' map. De la Cosa's map does have a Blemmye (headless figures with faces in their chests) and a Cynophali (dog-faced man); however, he locates them in the Far East in the approximate location of China, whereas Piri Reis places his own variation of these creatures in South America. Here the parallels end. De la Cosa places portraits in the Atlantic Ocean, whereas Piri Reis emphasizes ships. De la Cosa's map is dotted with flags of crosses and crescents that simplistically signify the dichotomy between the Christian and Muslim worlds in the mind of the cartographer. Piri Reis' maps, in contrast, are devoid of flags.

13 See, for example, Felipe Fernández-Armesto, *Columbus* (Oxford: Oxford University Press, 1991), esp. Plates VI and VII. For details on the importance of the references to Christopher Columbus on the map, see Hakkı, *Eski Haritalar*, 89-112; and McIntosh, *Piri Reis Map*, 69-75.

14 Soucek in particular favors this map and its possible influence on Piri Reis. See Soucek, *Turkish Mapmaking*, 73-74. I agree that there are indeed resonances of coastal and continental similarity but I dispute the iconographic vocabulary. For a high-quality downloadable image of the Cantino map directly through the Biblioteca estense universitaria library of Modena that houses this map, use the following link: <http://www.cedoc.mo.it/estense/info/img/geo.html>

15 Fernández-Armesto, *Columbus*, focuses on the parallel between the de la Cosa map and Piri Reis' World map of 1513. Soucek, *Turkish Mapmaking*, 73, also mentions this map when drawing parallels. For an image of the map along with a detailed analysis of its shape and coordinates see, <http://www.stonybrook.edu/libmap/coordinates/seriesa/n09/a9.htm>

There are many other similar citations and discussions of the Kunstmann no. 2 map, the Caneiro, the Pesaro, the King-Hamy-Huntington, the Egerton Ms. 2803, Ruysch, and Waldseemüller maps of 1507, 1513, and 1516, to mention but a few.¹⁶ Iconographic analysis of the coasts and outlines of the continents *vis a vis* European maps has been extensive. In addition, Svat Soucek has carried out a study of the ships depicted on Piri Reis maps and how they match up to ships depicted on European maps, as well as what they tell us about Ottoman ships of the early sixteenth century.¹⁷

In all of these iconographical studies there is one major absence.¹⁸ While every writer—scholar and dilettante alike—has focused on the possibility that European maps (or alien technology) may have influenced Piri Reis in the production of his map, limited attention has been paid to the classical Islamic influences present in his work. Thanks to Piri Reis' own words these influences cannot be ignored.

This is a unique map such as no one has ever produced, and I am its author. I have used 20 maps as well as mappaemundi (Yapamondolar). The latter derive from a prototype that goes back to the time of Alexander the Great (İskender Zulkarneyn) and covers the entire inhabited World—the Arabs call such maps Ja'fariyyah. I have used eight such Ja'fariyyah. Then I have used an Arab map of India, as well as maps made by four Portuguese who applied mathematical methods to represent India and China. Finally I have also used a map drawn by Columbus (Kolonbo) in the West. I have brought all these sources to one scale, and this map is the result. In other words, just as the sailors of the Mediterranean have reliable and well-tested charts at their disposal, so too this map of the Seven Seas is reliable and worthy of recognition.¹⁹

16 See McIntosh, *Piri Reis Map*, 37-41 for extensive list and Appendix A, 141-153. The list of possible European map candidates is so long that suffice to say that almost every single item (book, article, web page) that one consults on Piri Reis list a set of European maps that the author believes had the most impact on Piri Reis. The alternate focus of this article does not permit an extensive analysis of all these maps.

17 Soucek, *Turkish Mapmaking*, 13-20.

18 I should say two major absences but I will avoid taking my reader on a detour. The other major absence is an iconological analysis of the images that Piri Reis uses and why. Soucek is the only one who has come close to an iconological study in his analysis of the ships. It is only a short 7-page segment of iconological analysis. I include small segments of iconological analysis but it is in no way extensive and the matter still cries out for remedy.

19 Soucek, *Turkish Mapmaking*, 50; Emphasis my own.

Other than the clear reference to the use of one of Christopher Columbus' charts, Piri Reis' references are vague and this has led to an extensive guessing game among scholars as to which four Portuguese maps Piri viewed.²⁰

No one knows which Arab maps he is referring to. It is one of the enduring mysteries of Piri Reis' 1513 map notations. Since most map scholars specialize in the history of Euro-American cartography, sources of Islamic mapping and illumination do not circulate in their imagination.²¹ As a result, many scholars have ignored the impact that the Islamic cartographic tradition, the Islamic miniature tradition, and the 'Aja'ib (Wondrous) fantasy tradition must have had on Piri.²² Exceptional to this norm is the work of Svat Soucek, who is a specialist in Ottoman cartography and therefore has disciplinary familiarity with Islamic cartography.²³ Soucek has a searching gaze and he includes examples of medieval Islamic maps in his book on Piri Reis whereas the majority of authors undervalue or totally miss the significance of the medieval Islamic tradition.²⁴

The European charts of this period, even with their variations, resemble each other. The Piri Reis map stands out as distinctly different. Why? The answer is painterly tradition. The European portolan charts share a style of painting that ties them together and identifies them as belonging to the same tradition. Piri Reis' map does not fit the bill. There is some resemblance between it and the coastlines of the afore-mentioned European portolan charts, but, overall, the Piri Reis' map does not *look* like a European product. This sense of Piri Reis' map

20 McIntosh, *Piri Reis Map*, 69-75.

21 See, K. Pinto, "The Maps Are the Message: Mehmet II's Patronage of an 'Ottoman Cluster,'" *Imago Mundi* 63:2 (2011): 155-179, which refers to the same to sideline Islamic cartography by scholars of the period of Mehmed II, which resulted in a whole set of Islamic geographical manuscripts copied during the period of Mehmet being ignored.

22 To his credit, McIntosh, *Piri Reis Map*, tries to account for some of these alternate sources but he does this in a general way which in no way compares to the specificity of his comparisons with European maps and the analysis of place-name historiography for which his book is a gem.

23 Soucek, *Turkish Mapmaking*.

24 The essence of the issue is that historians of mapping rarely take into consideration the techniques used by art historians and *vice versa*. Occasionally there are exceptions, such as, Zeren Akalay, "Minyatürlü bir coğrafya kitabı," *Kültür ve Sanat* (Haziran 1976): 60-71, which studies an illustrated carto-geographic Islamic manuscript from the perspective of an art historian; and Kay Ebel, a geographer, who incorporates Islamic art historical analyses into her appraisal of Matrakçı Nasuh; Kathryn A. Ebel, "Representations of the frontier in Ottoman town views of the sixteenth century," *Imago Mundi* 60:1 (2008): 1-22. But these are exceptions and for the most part the fields remain hermetically separated.

being different, being other-than-European, would be the case with or without Piri's own notations confirming Islamic influences. Even the Ottoman Turkish writing, which uses a variation of the Arabic script, serves to reinforce the overall sensibility of Piri Reis' map being a product of a different world with a different set of illumination traditions and painting codes.

Inferences about the traditional Islamic mapping and illumination connections with the Piri Reis map need to be put on equal footing with inferences about the connections with European portolan charts and mappamundi. Both perspectives are equally deserving of a place in the discussion of Piri Reis' map. In order to understand the Islamic connections one needs to begin with the meaning of the word Ja'fariyyah that Piri Reis uses to describe the Arab maps he worked with.

What's in a Word: Ja'fariyya or Jughrafiya?

*Whether it be that the faith which creates has ceased to exist in me, or that reality will take shape in the memory alone, the flowers that people show me nowadays for the first time never seem to me to be true flowers.*²⁵

What did Piri Reis mean when he said: "...the Arabs call such maps Ja'fariyyah. I have used eight such Ja'fariyyah"?

There has been an extensive debate on the meaning of the word Ja'fariyya that Piri Reis uses to describe the earlier Arab mapping traditions that he consulted. Most scholars who have examined this issue have argued that Ja'fariyya is a corruption of the Arabic word Jughrafiya.²⁶ I am in agreement with this analysis. Orthographically it is easy to prove—or at least the first part is. In Arabic, the letter ghayn (transliterated as gh) differs by only a dot from its sister letter 'ayn (conventionally transliterated as ') (see Figure 2).

| STAND ALONE | LETTERS | JOINED | LETTERS ²⁷ |
|-------------|-----------|-------------|-----------------------|
| ع ('ayn) | غ (ghayn) | سعين ('ayn) | سفنس (fa') |

Figure 2

25 Proust, *Remembrance*, 141.

26 Soucek, *Turkish Mapmaking*, 64; McIntosh, *Piri Reis Map*, 17.

27 Note neither one of these words means anything. I simply picked the least distracting letters to connect 'ayn and ghayn so that readers unfamiliar with the Arabic script can distinguish these clearly.

It is possible that Piri Reis accidentally left the dot out for the ghayn thereby rendering it to us readers of posterity as an ‘ayn. It is also possible that the dot over the letter fa’ (transliterated as f) was meant to cover both consonants since fa’ like ghayn takes only one dot above. We see this convention adopted sometimes in medieval manuscripts where the consonant dots are often left out altogether.²⁸ This is, however, unlikely because other handwritten sections of Piri Reis’ map do not indicate the same double use of dots by neighboring consonants. It should also be noted that the letters fa’ and ghayn as used within a word closely resemble each other. Only a slight difference in shape separates them: fa’ is represented by a completely round and bulbous form whereas ghayn is a slightly triangulated form that can on occasion look more round than triangular.

While we can argue that the ‘ayn in Ja’fariyya should really be a ghayn, the misplacement of the letter ra’ (transliterated as r) for fa’ in Ja’fariyya is not easily explained because the letters look very different and share no common characteristics. Ra’ does not join up to other letters like fa’ and is not marked with any dots (see Figure 3).

| STAND ALONE | LETTERS | JOINED | LETTERS ²⁹ |
|-------------|---------|-------------|-----------------------|
| ر (ra) | ف (fa) | سفس (w/ fa) | سرس (w/ ra’) |

Figure 3

If Jughrafiya was intended, ra’ should have been located before the consonant preceding fa’. This is therefore either a misspelling or a reference to something completely different —and herein lies the enduring enigma of this word that has puzzled many a scholar including myself.³⁰

28 No doubt an added tease for us historians of posterity struggling to figure out meaning and intent.

29 Note neither one of these words means anything. I simply picked the least distracting letters to connect fa’ and ra’ so that readers unfamiliar with the Arabic script can distinguish these easily.

30 I thank Ekmeleddin İhsanoğlu, former Director of IRCICA, Istanbul, and present Secretary General of the Islamic Conference, for bringing this issue to my attention while I was conducting research in the Istanbul manuscript libraries. This paper is an answer to his query of a decade ago.

| | |
|------------|------------|
| Ja'fariyya | Jughrafiya |
| جعفرية | جغرافيا |

Figure 4

Orientalists are sticklers for rules: Piri Reis wrote Ja'fariyya, therefore he must have intended Ja'fariyya and not Jughrafiya and so the interpretation that this was a spelling error (scribal or Piri Reis') is not easy to accept in order to confirm that he was indeed referring to Jughrafiya. But what are the choices (see Figure 4)?

No manuscript has turned up with exactly this title. The closest possibility is a twelfth century geography by the Andalusí scholar Muhammad ibn Abi Bakr al-Zuhri whose manuscript has been translated by M. Hadj-Sadok as 'Kitāb al-Dja'rāfiyya'.³¹ At one point al-Zuhri asserts that his work is a copy of al-Fazari's copy of the *Ja'rafiyya* of the ninth century 'Abbasid Caliph al-Mansur.³² Was al-Zuhri referring to the no longer extant al-Ma'munid globe?³³ His description suggests a flat two-dimensional map resembling the form that the maps in the Islamic cartogeographical manuscripts of al-Istakhri, *et. al.*, take.³⁴ Specifically, al-Zuhri says:

...the earth is spherical, but the Ja'rāfiyya is flat as is the astrolabe.³⁵

31 M. Hadj-Sadok as "Kitāb al-Dja'rāfiyya," *Bulletin d'Etudes Orientales*, 21 (1986): 7-312. Note "Dj" represents the Arabic letter "jim." E. J. Brill's *Encyclopedia of Islam* still uses this system of transliteration.

32 Some scholars cite the silver globe (*al-Sura[h] al-Māmunīya[h]*) that the Abbasid caliph al-Ma'mun (197-218/813-33) is said to have commissioned from the scientists who worked in his *Bayt al-Hikma* (House of Knowledge) as the *fons et origo* of Islamic mapping. There are multiple problems associated with the ascription of all Islamic cartography to this al-Ma'munid silver globe, foremost of which is that it is no longer extant and we cannot definitively determine what it looked like. Other than an extremely vague passage cited by al-Mas'udi (d. 345/ 956) in his *Kitāb al-Tanbih wa al-Ishraf* (the Book of Instruction and Supervision), we have no other descriptions of it. For a more detailed discussion of the so-called al-Ma'munid globe, see K. Pinto, *Ways of Seeing Islamic Maps* (under review). Note that al-Fazari's work is not extant.

33 M. Hadj-Sadok as "Kitāb al-Dja'rāfiyya," 306. See also, Gerald R. Tibbetts, "The Beginnings of a Cartographic Tradition," in *The History of Cartography: Cartography in the Traditional Islamic and South Asian Societies*, J. B. Harley and David Woodward, eds., Vol. 1, Bk. 1, (Chicago: University of Chicago Press), 95.

34 Hence they are sometimes referred to as the *Atlas of Islam*. These carto-geographical manuscripts customarily have the universal of *Kitāb al-Masalik wa al-Mamalik*. For more on what I refer to as the *KMMS* tradition, see K. Pinto, *Ways of Seeing*.

35 M. Hadj-Sadok as "Kitāb al-Dja'rāfiyya," 306.

Is this what Piri Reis was referring to when he employed the word *Ja'fariyya* to describe the Arab maps that he consulted? Given how often he and his uncle, Kemal Reis, sailed in the Mediterranean, it is certainly possible that he encountered or even owned a copy of al-Zuhri's *Kitab al-Ja'rafiyya*. Piri Reis' *Kitab-i Bahriye* (Book of Sea-ness/Sea Lore) detailing the Mediterranean, its shores, its islands, and its ports, is a singular testament to Piri Reis' familiarity with the sea. Even if he didn't have access to a copy of al-Zuhri's work, he may have come into contact with Andalusí merchants who referred to medieval Islamic maps as '*Ja'rafiyya*' as al-Zuhri does. H. Mu'nis, a Spanish scholar of medieval Islamic geographers and their works argues that al-Zuhri's work was widely diffused and should, in fact, be regarded as "a popular guide for merchants and travelers, put together by someone without wide culture and in a fairly relaxed style."³⁶ The relaxed style would certainly have appealed to Turkish corsairs like Piri Reis. Though several al-Zuhri manuscripts are extant none of them contain maps so there is no way of verifying exactly what kind of map al-Zuhri was referring to.³⁷ It does, however, sound as if al-Zuhri had in mind the maps of the *Kitab al-Masalik wa al-Mamalik* (Book of Routes and Realms)³⁸ tradition (*KMMS*).³⁹ It is to this tradition and to

36 H. Mu'nis, *al-djughrafīya wa'l-djughrafīyyun fi'l-Andalus*, in *Revista del Instituto de Estudios Islámicos en Madrid*, xi-xii (1963-4), 84-120; and Halima Ferhat, "al-Zuhri," *Encyclopedia of Islam*, 2nd edition [hereafter *EI*], XI: 566.

37 Gerald R. Tibbetts, "Later Cartographic Developments," 140. H. Mu'nis, *al-Djughrafīya*, xi-xii (1963-4), 84-120.

38 Zayde Antrim coins this translation for the *Kitab al-Masalik wa al-Mamalik* medieval cartographic manuscript tradition, which has up until now conventionally been translated as the "Book of Roads and Kingdoms." I prefer "Routes and Realms," and thank Antrim for her contribution of this alternate English rendering of *Kitab al-Masalik wa al-Mamalik*. See, Zayde Antrim, "Place and belonging in Medieval Syria, 6th/12th to 8th/14th Centuries," Ph.D. diss. (Harvard University, 2004).

39 Most of the *KMMS* maps occur in the context of geographical treatises devoted to an explication of the world in general and the lands of the Muslim world, in particular. These "map-manuscripts" generally carry the title of *Kitab al-Masalik wa al-Mamalik* (Book of Roads and Kingdoms), although they are sometimes named *Surat al-Ard* (Picture of the Earth) or *Suwar al-Aqalim* (Pictures of the Climes/Climates). These manuscripts emanate from an early tradition of creating lists of pilgrim and post stages that were compiled for administrative purposes. Beginning with a brief description of the world and theories about it—such as the inhabited *vs.* the uninhabited parts, the reasons why people are darker in the south than in the north, etc.—these geographies methodically discuss details about the Muslim world, its cities, its people, its roads, its topography, etc. Sometimes the descriptions are interspersed with tales of personal adventures, discussions with local inhabitants, debates with sailors as to the exact shape of the earth and the number of seas, etc. They have a rigid format that rarely varies: first the whole world, then the Arabian peninsula, then the Persian Gulf, then the Maghrib (North Africa and Andalusia), Egypt, Syria, the Mediterranean, upper and lower Iraq, as well as twelve maps devoted to the Iranian provinces, beginning with Khuzistan and

one particular manuscript in this tradition that I now turn. I believe that Piri Reis had access to this manuscript and that proof of this access shows up in the unique iconography of the flora and fauna of his 1513 map.

Before I leave this discussion on Piri Reis' mysterious Ja'fariyya reference, I should note that we still have not resolved the dilemma of the transposed fa' *vs.* ra'. Al-Zuhri's *Ja'rafīyya* locates the ra' in the same place as Jughrafiya. In fact, the *Encyclopedia of Islam, Second Edition (EI²)* entry on al-Zuhri lists him as the author of 'Kitab al-Djughrafiya.' It is as if someone at Brill made the decision that M. Hadj-Sadok transliteration of 'Dja'rāfiyya' was a modern transliteration orthographic error. Halima Ferhat who completed this entry provides no details for the change in the spelling. Did she consult different manuscripts from Hadj-

ending in Khurasan, including maps of Sind and Transoxiana. The maps, which usually number precisely twenty-one—one world map and twenty regional maps—follow exactly the same format as the text and are thus an integral part of the work. Not all these geographical manuscripts contain maps, however – only those referred to generally as part of the al-Balkhi/al-Istakhri tradition, also referred to as the “Classical School” of geographers. Hence this particular geographical genre is also referred to as the “Atlas of Islam.” A great deal of mystery surrounds the origins and the architects of this manuscript-bound cartographic tradition. This is primarily because not a single manuscript survives in the hand of the original authors. Furthermore, it is not clear who initiated the tradition of accompanying geographical texts with maps. Scholars of the eighteenth and nineteenth centuries held that Abu Zayd Ahmad ibn Sahl al-Balkhi [hereafter al-Balkhi] (d. 322/934), who—as his *nisba* (patronym) suggests—came from Balkh in Central Asia, initiated the series and that his work and maps were later elaborated upon by Abu Ishaq ibn Muhammad al-Farisi al-Istakhri [hereafter al-Istakhri] (*fl.* early 10th century) from Istakhr in the province of Fars. Al-Istakhri's work was, in turn, elaborated upon by Abu al-Qasim Muhammad ibn Hawqal [hereon Ibn Hawqal] (*fl.* second half of 10th century), who came from upper Iraq (the region known as the *Jazīra*). Finally Abu 'Abdallah Muhammad al-Muqaddasi [hereafter al-Muqaddasi] (d. *ca.* 1000) from Jerusalem (Quds) is considered the last innovator in the series. The problem is that other than al-Balkhi virtually no biographical information exists on the other authors. We are forced to rely on scraps of information scattered here and there in the geographical texts themselves for information about the authors. Furthermore, in all the forty-three titles that Ibn al-Nadim credits to al-Balkhi not one even vaguely resembles the title of a geographical treatise. According to the biographers, al-Balkhi was most famous as a philosopher and for his *tafasir* (Commentaries on the Qur'an), which were highly praised. He is not, however, known in the biographical record for his geographical treatises. Yet stories of how al-Balkhi sired the Islamic mapping tradition abound and endure. It is for this reason that the genre is generally referred to as the “Balkhi school of mapping.” I find this attribution of a whole school of mapping to a shadowy, mythical father unfounded. I stubbornly refuse to continue the misnomer and have opted instead for a new acronym: the *KMMS* mapping tradition. I base this acronym on the title of the genre's most widely disseminated version: al-Istakhri's, *Kitab al-Masalik wa al-Mamalik (KMM)*. The 'S' added on to the end of the acronym stands for “Surat” (picture)—i.e. those *KMM* geographical manuscripts that are accompanied by *carto*-graphics. For more on the *KMMS* tradition, see, K. Pinto, *Ways of Seeing*.

Sadok?⁴⁰ Or did one of the *EI*² editors decide that this was an error and change Hadj-Sadok's Ja'rafiyya to Jughrafiya?⁴¹

Perhaps Piri Reis made the same type of dyslexic spelling error that we are all prone to make and that he had actually intended either Ja'rafiyya or Jughrafiya. The problem is that he repeats exactly the same misspelling twice in the same sentence.⁴² It has been conjectured that Piri Reis may have had some limitations in his command of Arabic and possibly even in Ottoman Turkish.⁴³ On the other hand, after plowing through this tongue-twisting section on the variations between the spellings of Ja'fariyya, Ja'rafiyya, and Jughrafiya, can anyone blame Piri for this slip?

Possible Ja'fariyyas (or Jughrafiyas) that Piri Reis May Have Seen: Bağdat 334 and its possible connections to Piri Reis' World Map

*And I begin to ask myself what it could have been, this unremembered state which brought with it no logical proof of its existence, but only the sense that it was a happy, that it was a real state in whose presence other states of consciousness melted and vanished. I decide to attempt to make it reappear.*⁴⁴

One thing that the above discussion of al-Zuhri makes clear is that by the twelfth century and onwards, Ja'fariyyas (or Jughrafiyas) was common parlance in maritime circles of the Islamic Mediterranean region to refer to the flat two-dimensional maps found in *KMMS*-type cartographically illustrated geographical manuscripts. This at least should put an end to the search for pseudo-Ptolemaic

40 Halima Ferhat, "al-Zuhri."

41 This bears checking but sadly I have no access to any microfilms of al-Zuhri's manuscripts. Hopefully someone will undertake the project of tracking down al-Zuhri's extant manuscripts to provide us with an answer. For now I have no choice but to leave this question hanging.

42 As my husband, Devon Richards, seasoned editor of my work, points out: "It is well known by editors that a writer's misspellings are consistent and form a kind of signature. If Piri Reis misspelled something once, he'd be very likely to do it again."

43 Others have also referred to Piri Reis' limited grasp of Arabic. See, for example, Soucek, *Turkish Mapmaking*, 72. By the early sixteenth century Ottoman Turkish and not Arabic was the lingua franca in Anatolia. On the other hand, even in Ottoman Turkish the correct spelling is Jughrafiya. So one would have to assert that Piri Reis' written Ottoman Turkish in Arabic script was also faulty. Could this be why Muradi claimed that he was the real author of *Kitab-i Bahriye* but Piri Reis got all the credit? See Soucek, *Turkish Mapmaking*, 95.

44 Proust, *Remembrance*, 35.

manuscripts to fit this bill.⁴⁵ Piri Reis intended by this word 'Arab maps' not late medieval/early Renaissance Berlinghieri-like portrayals of the world.⁴⁶ He clearly says so on his 1513 map.⁴⁷

So what *Ja'rafiyyas* did Piri Reis see? How can we determine this? He did not use the territorial layouts of Islamic maps—or not that we know of since the old world section of the map that may have incorporated traditional Islamic depictions of the world is missing. All we have to go on is the section of his map that covers the Americas and West Africa. The outlines of the coasts of South America and West Africa are of no assistance in this matter because the medieval Islamic mapping tradition *KMMS* depicted the world prior to the discovery of the Americas. In the absence of specific references our only hope of figuring out exactly which *KMMS* manuscripts Piri Reis was referring to when he said that he used eight Arab *Ja'rafiyyas* is to examine the iconographic elements of his map for matches between the plethora of fantastic creatures and manuscripts of the *KMMS* illustrated geographical tradition. The iconographic images with which Piri adorned his map are reflective of the kind of material that circulated around Piri Reis as he was making his world map and present alternate points of assessing the impact of Islamic/Middle Eastern influences upon his work. This alternate way of viewing Piri Reis maps with a focus on the images instead of the outlines

45 By Pseudo-Ptolemaic manuscripts I am referring to the fact that there are no extant map manuscripts from the period of Ptolemy (i.e. first century C.E.). Rather the earliest extant manuscripts date from the thirteenth century and the majority from the fifteenth and sixteenth century. Although they are labeled as the work of Ptolemy in fact they are reflective of early Renaissance mapping whence was developed the myth of Ptolemy as the father of cartography. Scholars still debate whether or not Ptolemy ever actually accompanied his manuscript with maps or if these were a later Byzantine interpolation. Francesc Relano, "Against Ptolemy: The significance of the Lopes-Pigafetta map of Africa," *Imago Mundi* 47 (1995): 49-66; O. A. W. & Margaret Dilke & Susan Danforth, "The Wilczek-Brown codex of Ptolemy maps: Notes on the scientific examination of the Wilczek-Brown codex," *Imago Mundi* 40 (1988): 119-25; Erich Polaschek, "Ptolemy's 'Geography' in a New Light," *Imago Mundi* 14 (1959): 17-37.

46 Berlinghieri's rendition of the so-called Atlas of Ptolemy is famous in Ottoman and history of cartography circles. It must have created quite a splash when it arrived at Topkapı Palace shortly after Mehmed II's death. TKS: G.I. 84. Sean Roberts, "Poet and 'World Painter': Francesco Berlinghieri's Geographia (1482)," *Imago Mundi* 62:2 (2010): 145-60.

47 If Piri Reis had intended to indicate that he had used Ptolemy manuscripts why would he not have used the more common *Batlamiyūs*? The pseudo-Ptolemy manuscripts were not commonly known as "Jughrafiya"—or at least not in the Islamic world at the time. So it makes no sense to argue that Piri Reis intended to indicate Ptolemy manuscripts when we know he would have known about and consulted *KMMS* manuscripts. See K. Pinto, "The Maps Are the Message." Soucek suggests that "Bortolomye" may have been Piri Reis' distortion of *Batlamyus*; Soucek, 73. Thomas Goodrich in email correspondence suggests that Piri Reis could have been referring to the work of Bartolomeo Sonetti.



Figure 5: Detail of Brazil section of 1513 Piri Reis world map, showing Blemmye, Monkey, Yale, and Unicorn–Bull.

of the map leads us to one highly plausible *KMMS* source: Bağdat 334 [hereafter B334], a late fifteenth/ early sixteenth century al-Istakhri manuscript located in the library of Topkapı Palace.⁴⁸

Midway along the South American continent, located well inland from the coast in the region we now refer to as Brazil, atop a large pile of rose/pinkish rocks marking the Andes, are two curious figures: A Blemmye and a monkey. The monstrous man with a fiery-topped head in his chest (Blemmye style) has an evil, sadistic grin as he holds a stone in one hand and appears to scratch his inner thigh with the other (highlighted by red square on Figure 5). Perched on another rock of the mountain range is a monkey holding a piece of fruit, although it could also be holding a stone (highlighted with a purple circle on Figure 5).

The monkey appears to be saying something to the monster. Is this monkey taunting the monster and threatening to throw something at him or is this

⁴⁸ Zeren Akalay, “Minyatürlü bir coğrafya kitabı,” has identified B334 as a Qara Quyunlu manuscript dating to approximately the 1460s-70s. Tanındı opens her article on B334 by talking about Piri Reis while Svat Soucek uses the world map from B334 in his book to represent the *KMMS* Islamic mapping tradition. Soucek, *Turkish Mapmaking*, 63.

monkey a friend of the monster's? The image could be interpreted either way. The monster and the monkey sitting atop a ridge of rocks appear to be markers for the end of the known world. Is Piri Reis warning his viewers not to go past these mountains because beyond them lie frightening monsters and evil monkeys?⁴⁹ The writing just above the head of the Blemmye communicates a different message:

These wild beasts attain a length of seven spans. Between their eyes there is a distance of only one span. Yet it is said, they are harmless souls.⁵⁰

The Blemmye is intended thus as a friendly monster of sort. Perhaps that is why the monkey is depicted as having a conversation with it, indicating perhaps that he is not scared nor should intrepid explorers be. This is a distinct break with earlier, and in fact, co-terminus manuscript traditions, which enforce and reinforce the notion that the Encircling Ocean is full of scary beasts and therefore should not be crossed. Piri Reis appears to be signaling even in his depiction of the friendly Blemmye a New—friendly—World waiting to be explored.⁵¹

A similar scene of a man (highlighted with red box on Figure 6) and a monkey on top of some rocks with a stone in its hand (highlighted with blue box) is to be seen on the map of the Nile in a mid-fifteenth century al-Istakhri *KMMS* manuscript with the catalogue number B334. The parallels between this image and the image of the monkey and the Blemmye in the 1513 Piri Reis map are immediately apparent. Although the depiction is different there is a distinct resemblance.

49 Monkeys are considered a sign of ill omen in Islam. See discussion on following page and references in footnote 56.

50 McIntosh, *Piri Reis Map*, 44, who notes that the translation is courtesy of Thomas Goodrich. The Department of Navigation: Hydrography and Oceanography of [the] Turkish Navy provides a slightly variant but similar translation: "...But they are harmless and docile."

51 It could be argued that the Anonymous manuscript of *Tarih-i Hind-i Garbi* carries similar "friendly monster" motifs; see Thomas Goodrich, *The Ottoman Turks and the New World: A Study of Tarih-i Hind-i Garbi and Sixteenth-century Ottoman Americana* (Wiesbaden: Otto Harrassowitz, 1990). Blemmyes figure on medieval European mappamundi from the twelfth-century onwards—most famously on the Hereford mappamundi of the Hereford Cathedral in the UK. The unanswered question is where and how would Piri Reis have seen the depiction of a Blemmye? The earliest illustration of a Blemmye in a manuscript that I have come across is in the illustrated copy of Ibn Zunbul's *Qanun al-Dunya* (TKS Revan 1638). The fact that the manuscript is located in the Topkapı Palace library is compelling for our investigation but it is dated to the mid-sixteenth century and this makes it approximately fifty years too late to fit with the dating of Piri Reis' map. Perhaps the influence is in the other direction in this case: with the iconography of the Piri Reis map influencing the illustrator of TKS Revan 1638.

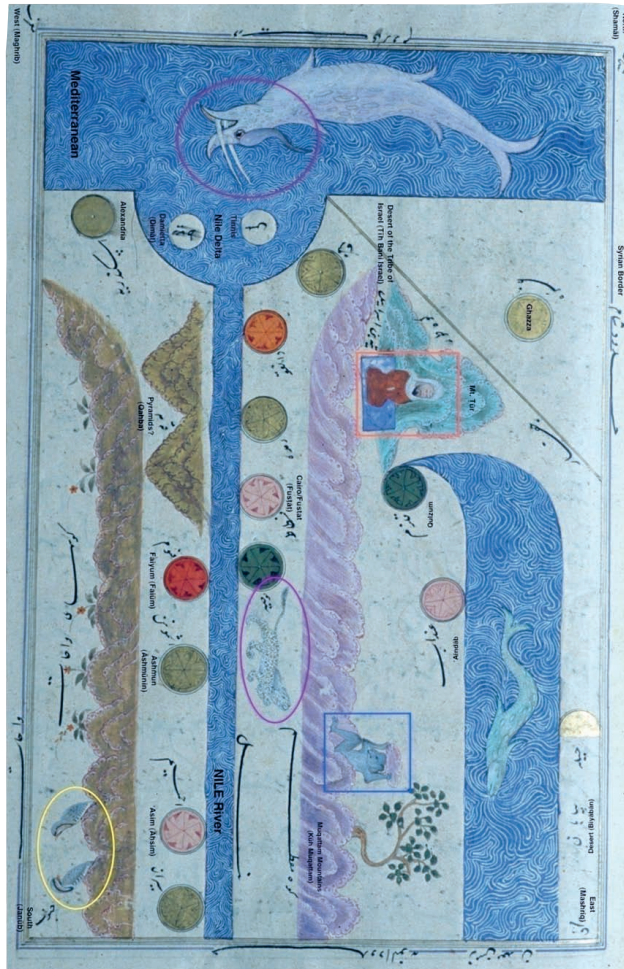


Figure 6: Istanbul, TSK, Bağdat 334 [B334]: Picture (Map) of Egypt (Surat Misr) showing Monkey Throwing Stone at Prophet Moses with a Fanged Fish in the Mediterranean; courtesy of the Topkapı Sarayı Kütüphanesi

The parallels do not end with the man/monster, monkey, and rose/pinkish mountains but extend also to the strange fish policing the mouth of the Nile (circled in purple on Figure 6). This fish has long fangs just like the fangs of the antelope or yale depicted on the far edge of the mountain range of Brazil in the Piri Reis map.⁵² This South American antelope counterpart trots away from the

52 McIntosh, *Piri Reis Map*, 43, identifies this as a Yale—a spotted horse-like mythical creature with tusks and movable horns. For more details, see Wilma George, “The Yale,” *Journal of the Warburg and Courtauld Institute* 31 (1968): 425.

monkey throwing a stone in a gait similar to that of the leopard (purple circle) in the B334 map, which is shown heading upstream along the Nile away from Cairo/Fustat. This manuscript is full of images of birds (see yellow circle) and, although they do not provide an exact parallel with the parrots of Piri Reis, they suggest a source of inspiration for the multitude of birds that inhabit the iconographic spaces of the Caribbean on his map.

The nature of the metamorphosis between the figures on the B334 map and those of the Piri Reis map is most curious. On the B334 map, the man depicted is shown seated on his haunches on a prayer mat—as if in the middle of praying—signifying his piety. The label next to him indicates that he is in the desert (Tih) of the Bani Isra'il, suggesting that this is a depiction of the Prophet Musa (Moses). Right behind the man is the symbol of an aqua blue colored mountain with a triple scalloped edge a-la Persian miniature illustration style of the fifteenth and sixteenth centuries. This mountain is labeled “Koh Tur” or Mount Tur. In this case it is a reference to Mount Sinai, today called Jabal Musa, in Egypt. Tur has a general sense of the meaning “mountain” in Quranic Arabic. The word occurs ten times in the Qur'an and on two occasions it expressly refers to Mount Sinai. Most of these occurrences are in reference to the Bani Isra'il—Tribe of Israel.⁵³

The monkey is throwing stones at a pious man on his prayer rug. There is nothing nice about this monkey. He has a nasty, vicious look. In Islamic tradition, monkeys are considered a sign of ill omen. There are numerous hadith that say, for instance, “If a monkey, a black dog, or a woman passes in front of a praying person, his prayer is nullified.”⁵⁴ There are other references to monkeys in the Qur'an, such, as 2:65, which are connected to Mt. Sinai and the Children of Israel (2:40-71). This segment discusses how the Prophet Moses saved his people but in spite of God's mercy some people still broke the sanctity of the Sabbath and as punishment would be turned into despised apes:

Surely the believers and the Jews, Nazareans and the Sabians, whoever believes in God and the Last Day, and whosoever does right, shall have his reward with his Lord and will neither have fear nor regret. Remember the day We made the covenant with you and exalted you on the Mount [al-Tūr] and said “Hold fast

53 Qur'an: II, 60-63, 87-93; IV, 153-154; XIX, 52-53, XXIII, 20; XCV, 2. For more details, see, E. Honigmann, “al-Tur,” *EI*², X: 663.

54 Hadith cited in both *Sahih Bukhari* 8:102 and Ibn Hanbal. Additional hadith, such as *Sahih Bukhari* 5:188 & 7:494, reinforce this idea of negativity. See footnote 50.

to what We have given you, and remember what is therein that you may take heed. But you went back (on your word), and but for the mercy and grace of God you were lost. You know and have known already those among you who had broken the sanctity of the Sabbath, and to whom We had said: "Become (like) apes despised."⁵⁵

There is also a Shi'i hadith that tells of the Prophet Muhammad having a dream of vicious Umayyads turned into monkeys jumping on the minbar (pulpit) while throwing stones at Imam 'Ali.⁵⁶

How and why does the image of the pious Prophet Moses praying morph into that of a monster of the Blemmye model? Even the monkey is no longer a nasty stone-throwing fiend but depicted instead as a friend of the monster. These can be read as subliminal coded messages through which Piri Reis communicates to his viewer. Sitting as he was at the center of the vortex of monumental change on the eve of modernity as the New World was being discovered, with the outlines of the world on maps around him changing virtually every day, we could interpret Piri Reis as subtly criticizing religion through this morphed iconography. He was in touch with sailors, travelers, tellers of marvelous tales. He knew and reflected the on-going change in both his world maps and his own detailed version of a Mediterranean isolarii, the *Kitab-i Bahriye* (Book of Sea Lore/Book Concerning the Sea). Perhaps he was starting to think that the religious ideals that had been taught to him since childhood along with manuscripts in the classical Islamic tradition were nonsense and this was his way of expressing it. Yet, if that was the case then why not ignore their influences all together? Why even mention that he consulted them? There is more going on here than meets the eye. Perhaps some form of answer can be found in the seventeenth-century travel writer, Evliya Çelebi's (d. 1684) tongue-in-cheek joke describing the cartographer's guild and the kinds of maps they produced. He claims,

Their patron saint (Pir) is 'Ikrima ibn Abu Jahl, who was honoured with the honour of Islam at the conquest of Mecca. He had inherited this science from his father, who was in his time the sole possessor of the science of astronomy.⁵⁷

55 *Al-Qur'an*, 2:62-65, translation by Ahmed Ali (Princeton: Princeton University Press, 1984), 18-9.

56 *Kitab Sulaym ibn Qays*, ed. Muhammad Baqir al-Ansari (Qum, Iran: Dalil Ma' Publishers, 1420 AH), 341-2.

57 Evliya Çelebi, *Seyahatnâme*, Vol. I, 548. I am grateful to Svat Soucek for bringing this timely reference to my attention. See, Soucek, *Turkish Mapmaking*, 93-4.

As Soucek aptly points out, this is an example of Evliya Çelebi's charming wit. Abu Jahl was one of the pagan tribal chiefs of Mecca who opposed the Prophet Muhammad and his message from the very start of Muhammad's prophecy to his bloody end on the battlefield of Badr in 624 CE. Any good Muslim would recognize that the message being communicated by Evliya is one suggesting that the cartographer's art had something in common with the heathen. Is Evliya picking up on and recording for posterity a sentiment that was common at the time among Ottoman cartographers and had its roots in the sentiments of one of the earliest Ottoman cartographers? Was Evliya subtly critiquing the move away from the classical Islamic image of the world to the heathen Western one? It is in this sacrilegious light that the morphing of an image of a Prophet into a Blemmye on Piri Reis' map should be read. It is suggestive of a changing of the guard and the coming of a new, blasphemous world replete with risqué images.

TKS Bağdat 334 is an exquisitely illustrated Persian rendition of al-Istakhri's *Kitab al-Masalik wa-l-Mamalik* (Book of Routes and Realms) carto-geographical manuscript tradition. Other manuscripts, such as TSK Ahmet (A) 2830, which I have identified as an Aq Quyunlu Turkman product of the late 1460's, is another example of exquisite illumination.⁵⁸ The exception of B334 lies in the inclusion of an elaborate assembly of figures—humans, angels, fantastic beasts, and other flora and fauna—that adorn the seas and lands of the classical medieval Islamic maps. Although elaborate, delicate illumination is a common part of the Islamic miniature illustrative vocabulary from the twelfth century onwards; this is one of the earliest *KMMS* manuscripts to adorn maps with figures done in the fine style of late fifteenth/early sixteenth century Persian miniaturists.⁵⁹ Unfortunately, this manuscript has a very general colophon

58 See, Pinto, "The Maps Are the Message."

59 The only other *KMMS* manuscript decorated with flora, fauna, and Islamic miniature-like figures, is another Persian manuscript in Vienna: Cod. Mixt. 344. Like TKS B334, this Persian translation of al-Istakhri also does not contain a colophon. In his facsimile edition for this manuscript Hans Mžik suggests a sixteenth-century date for it. Mžik notes that the manuscript employs Italian paper. Italian paper usually comes with a water-mark so it should be possible to date this manuscript. Mžik has, however, not identified one. Hans Mžik, *Al-Isabari und seine Landkarten im Buch "Suwar al-Akālīm,"* (Vienna: Georg Prachner Verlag, 1965), 9. The Persian Gulf/Indian Ocean Map contains an image of a fish with Jonah emerging from it (Mžik, 30). This fish resembles the big fish of the St. Brendan motif on the Piri Reis map. There are some later *KMMS* manuscripts that are embellished with flora, fauna, and creatures, such as the two manuscripts at the British Library mis-attributed by their copyists to al-Jayhani, but these are late eighteenth century Mughal India renditions. British Library: Or. 1587 and Add. 23542.

containing a prayer without any reference to the date and place where it was copied. Nor does it provide the name of the copyist.⁶⁰ In the absence of colophonic information, all that we have for the purposes of identification are the illustrations. Zeren (Akalay) Tanındı has identified Bağdat 334 as a Qara Quyunlu Turkman manuscript dating to *ca.* 1460/70.⁶¹ Based on the fine quality of the illumination and the Shi'a themes incorporated in the manuscript, such as the trope of the story of the Umayyad monkeys throwing stones at the Prophet's family and other Prophets, use of the Persian language, and Safavid iconographic similarities, it makes more sense to identify B334 instead as an early sixteenth-century Safavid manuscript.⁶²

It is thought-provoking to imagine that Piri Reis may have browsed—or possibly owned—this manuscript and that its images were in his mind as he drew his map of the world. Additional images from TKS B334, such as Figures 7 & 8, provide us with stimulating insights into the kind of images of the world that were circulating in Piri Reis' mind while he was conceiving of and executing his map.

If more of his 1513 map were extant we would have a better answer. As it is, we only have the surviving vestiges of the illumination on one-third of his World map. One more image suggests itself as a possibility. Swimming in the sea of the Persian Gulf/Indian Ocean surrounding the B334 map of the Arabian Peninsula is a marine goat. Although it has two small horns rather than a single one, it resembles the image of the unicorn-bull on Piri Reis' maps as shown on the South American mainland of Brazil, further up from the image of the monkey and the Blemmye, closer to the Atlantic coast (see Figure 9).⁶³

60 I am grateful to Hossein Kamaly for examining this colophon with me and confirming my findings. "... By virtue of its broad coverage and the benefit to be drawn from it, this book which is called 'Roads and Routes' was translated from Arabic into Persian so that people who read it may find it useful and those to whom it is read may gain from it. It is entitled 'Roads and Routes,' and all praise belongs exclusively to God. Completed with the support of the Mighty Generous King [i.e. God] in God's praise and in seeking his favor."

61 Akalay, "Minyatürlü bir coğrafya kitabı."

62 For examples of Safavid miniature art that display iconographic similarities with B334 see, Stuart Cary Welsh, *Persian Painting: Five Royal Safavid Manuscripts of the Sixteenth Century* (New York: George Braziller, 1976) and Marianna Shreve Simpson, *Sultan Ibrahim Mirza's Haft Awrang* (Washington, D.C.: Smithsonian Institution & New Haven: Yale University Press, 1997).

63 McIntosh identifies this as a monoceros: "a legendary beast with a single curved horn, a horse-like body larger than a unicorn's, and feet like an elephant's;" McIntosh, *Piri Reis Map*, 43.



Figure 7: Istanbul, TKS: B334 Map of the World Unusually Oriented West;⁶⁴ courtesy of the Topkapı Sarayı Kütüphanesi.

64 Most medieval Islamic world maps are oriented with south on top. Soucek uses this very world map in his book on Piri Reis to illustrate the classical Islamic mapping tradition. Was it just a matter of chance that Soucek picked this map? Or had he seen B334 and thought about the iconographic parallels between it and Piri Reis' 1513 World Map? Soucek does not specify but his choice of map to illustrate the *KMMS* tradition is telling; Soucek, *Turkish Mapmaking*, Plate 9 and 61-64.

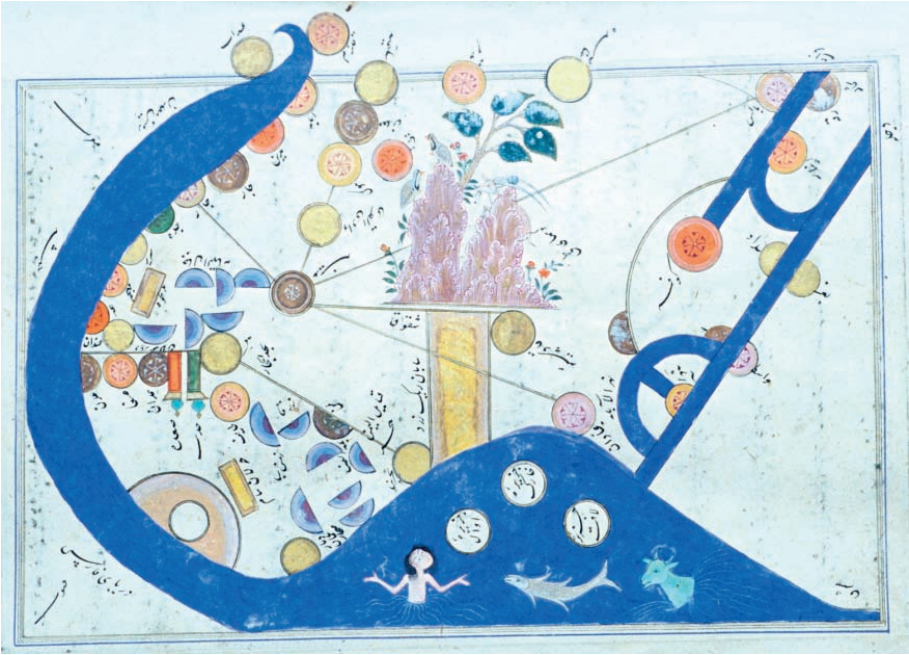


Figure 8: Istanbul, TKS: B334 Map of the Arabian Peninsula with Marine-Goat depicted as swimming in the Persian Gulf; courtesy of the Topkapı Sarayı Kütüphanesi.



Figure 9: Comparison of Marine Cow in B334 and Unicorn Bull in Piri Reis Map

How could B334 & other similar manuscripts have crossed Piri Reis' path?

And I begin to ask myself what it could have been, this unremembered state which brought with it no logical proof of its existence, but only the sense that it was happy, that it was a real state in whose presence other states of consciousness melted and vanished. I decide to attempt to make it reappear.⁶⁵

The unremembered state of Proust raises a crucial question that plagues all scholars who grapple with the sources of Piri Reis' map without a conclusive result. Although some insightful comparisons have been made with a series of European portolan charts no one has been able to prove definitively how Piri Reis would have had access to them. When and where would Piri Reis have had the opportunity to examine the Juan de la Cosa map, for instance, or the Cantino Planisphere?

With the classical *KMMS* Islamic carto-geographical mapping tradition the answer is easier. Piri Reis lived in the area where these maps were produced and housed. I have identified a cluster of *KMMS* manuscripts produced in Istanbul after the 1470s onward and I argue that these copies were likely commissioned by Mehmed II or one of his chief scholars, possibly the Timurid exile, 'Ali Qushji, to build up the public libraries in newly-conquered Constantinople. The libraries of Aya Sofya and Mehmed II's Fatih complex come to mind. As public libraries Piri Reis would at least have had access to manuscripts of the stemma I have named the "Ottoman Cluster." And, it is quite possible that these 'Ottoman Cluster' manuscripts were among the eight Arab *Ja'rafiyyas* he reports as having consulted. Iconographically, however, there are no parallels between Piri Reis' 1513 World Map and the Ottoman Cluster examples. The maps in this cluster are strikingly plain and unadorned in comparison to B334 (see an example of one of the world maps in Figure 10). It is, however, highly likely that Piri Reis had access to them.

⁶⁵ Proust, *Remembrance*, 35.



Figure 10: Istanbul, Süleymaniye, Ayasofya 2971a: Typical Map of the World in Ottoman Cluster;⁶⁶ courtesy of the Süleymaniye Kütüphanesi

Although there seems to be no visual resonances between the Ottoman Cluster and the Piri Reis map, perhaps we can find a textual one. There is a strange reference to the Atlantic on Piri Reis' 1513 World map that many a scholar has puzzled over.

This sea is called the western Sea. The Franks used to call it Mar de Ispania, which means the Spanish Sea. But once Columbus had explored this sea and discovered these islands [to the west], and after the Portuguese infidel opened [the route] to India, everybody agreed that this sea should receive a new name. They called it *Ovo Sano*, which means Healthy Egg. For, prior to [these voyages,] they used to think that this sea had no limits that its other side consisted of darkness; now, however, they have found out that coasts encircle this sea, which has thus taken the form of a lake—hence the name Healthy Egg.⁶⁷

⁶⁶ For more information, see K. Pinto, "The Maps Are the Message."

⁶⁷ Soucek, *Turkish Mapmaking*, 60; for an original Ottoman Turkish and Modern Turkish translation, see Hakki, *Eski Haritalar*, 88.

Some have declared it to be a quaint statement and an example of Piri's naïveté. But if one examines the typical world map of the Ottoman Cluster above, keeping in mind that the world as it was known had suddenly changed drastically for mariners like Piri, then this statement starts to make sense. The Muslim *Bahr al-Muhit* (Encircling Ocean) of yore—the terrifying green sea full of mists and fish that were six days long in which Iblis (the Devil) lurked with his helpers on mysteriously disappearing islands—suddenly had another land in it! Imagine the impact that this must have had on the minds of mariners of the time—both Middle Eastern and European—reared with the idealized image of the world as found in the *KMMS* tradition and medieval European *mappamundi*, always ringed by an ocean. Piri Reis' comment expresses the way in which this bombshell of 1492 was reconciled with the image that the Old World mariners carried around in their head. The only way it could make sense without completely destroying the foundations of their knowledge was if the Encircling Ocean was conceived of as a massive lake with the Old World lodged inside it on one end and the New World lodged inside it on the other end. The metaphor of an 'Egg' expresses this reconciliation perfectly; it represents a source of potential, fertility, and productivity - the unfolding of a whole new way of seeing the world. Viewed from the perspective of traditional Islamic *mappamundi*, Piri Reis' statement appears apt. Especially interesting is the way in which the terrifying Encircling Ocean of yore retains its familiar encircling nature but has turned into a 'Healthy' lake/sea that nurtures continents and causes them to flourish. It represents a way of thinking about the world on the eve of a major geographical paradigm shift. Instead of criticizing Piri Reis for this statement, we should thank him for providing us with this fleeting glimpse into how mariners of the late fifteenth and early sixteenth-century were reconciling the sudden alteration in the continental layout of the world and the role that the Encircling Ocean played in this change.

The question of how Piri Reis would have had access to B334 is not clear. We do not know for sure when the manuscript arrived at Topkapı Palace. All we have to go on is a Selim III stamp on the middle of the frontispiece medallion. This gives the manuscript a definite presence at the palace sometime between 1789 and 1807. Did it enter the palace collection earlier and was it simply not stamped? Or was it a manuscript that was actually owned by Piri Reis and did not enter the Palace collection at Topkapı Palace until after his death in 1554? We have a number of reports about Piri Reis and his so-called 'treasure' acquired through his years of piracy. Stripling reports two instances of Piri Reis sending booty to Constantinople. First from Basra, as the Ottoman naval debacle in the Persian Gulf was unfolding, it is reported that Piri "sent the booty he obtained

at Maskat to Constantinople.” From Egypt, to which it is said he had escaped with three galleys, Piri is said to have returned to Turkey with a caravan of camels laden with presents to assuage Sultan Süleyman’s wrath.⁶⁸ None of these gifts did anything to satisfy the Sultan, who gave the order for Piri’s head to be executed for not allowing the Portuguese to decimate him and his ships.⁶⁹ The Sultan, it is said, was angered by the fact that Piri Reis was more interested in protecting his treasures than his fleet. Whatever the reason for Piri’s execution, the result was that his treasures ended up in Topkapı Palace. There are a number of lavish albums housed in Topkapı Palace that also contain semblances of possible influences on Piri Reis’ work and, thus, may also have made their way to the Sublime Porte through Piri Reis’ own personal collection.⁷⁰

This leaves one final question: Did Piri Reis draw and illustrate his own map? There is no way to know the definitive answer to this question but it is generally presumed that the cartographer is called the cartographer because he executed the map. Did he just draw the outlines of the coasts and leave the illumination work for a specialist? When we speak of the images that Piri Reis saw are we speaking of one person or a multitude of people: conceiver, executor, illustrator, and copyist as separate entities acting in tandem on the project of a map together?⁷¹ Piri Reis’ map appears to have been done by one person. There is a consistency in the lines, in the illustrations, and even in the hand of the notations on strange people and new places that fills its blank spaces. The only piece that is different is the colophon. For this reason, many scholars have presumed that Piri Reis signed the colophon and that someone else made the map. The colophon, however, is written in a different voice and possibly even in a different language.⁷² It has been

68 G. W. F. Stripling, *The Ottoman Turks and the Arabs, 1511-1574* (Urbana: The University of Illinois Press, 1942), 94-5.

69 There is a debate about whether Piri Reis was executed in Egypt or in Istanbul. Svat Soucek confirms Cairo as the location in “Piri Reis and the Persian Gulf,” *International Piri Reis Symposium*, 30-38.

70 Although I have not discussed these albums in this paper, there are possible illumination parallels between some of the images in these albums and Piri’s Reis’ map; see David Roxburgh, *The Persian Album 1400-1600: From Dispersal to Collection* (New Haven: Yale University Press, 2005).

71 The person who drew the New York subway map is a Japanese painter, Moro. Should we consider him a cartographer or a painter? He certainly drew, painted, and illustrated the entire map. I know this because I have met him personally and examined the original drawing that hangs on his wall at home.

72 It could be argued that the last letter of the second line is not ‘Allah’ but the Persian verb ‘ast.’ If this could be proven to be the case it would confirm that what has been identified by scholars as Piri Reis’ colophon was in fact written by someone else with Persian language skills.

translated as follows: “The person who drew it is poor Piri, son of Hacı Mehmed, and paternal nephew of Kemal Reis—May God pardon them both!—in the city of Gallipoli, in the month of Muharrem the sacred of the year 919.”⁷³ This notation uses the third person voice whereas all the other notations are expressed from a first-person point of view. Why would scholars discount the first person voice, which is all over this map, as Piri Reis’ but accept instead an illegible scrawl in the third person as Piri Reis’ handwriting? I conclude the reverse: that the map with most of its writing and illustration is Piri Reis’ hand, whereas the scrawl is a third party signature confirming that Piri Reis made this map.⁷⁴

Conclusion: Life in a Cornucopia of Images

*Undoubtedly what is thus palpitating in the depths of my being must be the image, the visual memory which, being linked to that taste has tried to follow it into my conscious mind. But its struggles are too far off, too much confused; scarcely can I perceive the colourless reflection in which are blended the uncapturable whirling medley of radiant hues, and I cannot distinguish its form, cannot invite it, as the one possible interpreter, to translate to me the evidence of its contemporary, its inseparable paramour, the taste of cake soaked in tea.*⁷⁵

Piri Reis’ life—1470s-1554—coincided with the origins of a cornucopia of finely illustrated manuscripts. From the thirteenth century onward, first with the Mongols and then their successors the Timurids, in Iran, and later the Turkman in Iraq, Iran, and Eastern Anatolia, fine miniature painting flowered in the Middle East. The Ottoman Empire, as the most powerful entity in the region, received the lion share of these exquisitely illuminated manuscripts. As major groups were absorbed—such as the Aq Quyunlu (White Sheep) Turkman and other groups in Anatolia—and as major battles were won, elaborately illustrated and illuminated manuscripts as well as the artists who made them began to flood into Anatolia seeking safety, stability, and a good wage. A brief examination of the holdings in Topkapı Palace and other libraries in Istanbul suffices to convince us of this. The region was awash in beautiful hand-painted manuscripts adorned with gold leaf and other precious colors.⁷⁶ Even a late fifteenth century historian like Mustafa

73 Translation based on Soucek, *Turkish Mapmaking*, 49.

74 A close examination of the map in situ is needed to resolve this matter.

75 Proust, *Remembrance*, 35.

76 To those wishing to get an impressionistic sense of what it must have been like, I recommend Orhan Pamuk’s, *My Name is Red* (Toronto: Knopf, 2001), or in Turkish, *Benim Adım Kırmızı*,

Ali, who was only a writer not an illustrator, acknowledges his exposure to these sources through a listing of the works that he had access to while completing his *Menakib-i Hünervan* (Lives of artists). His detailed discussion of Timurid artists and calligraphers confirms his access and exposure to a host of Persian illuminated manuscripts. When talking about the Iranian Timurid artists he says:

Every one of them was famous at that time and their [reed] pens were like planted saplings of pleasure in the garden of Baysunghur's esteem. The beauty of their writing and letters had been accepted as the pride of calligraphers of that age. It is generally accepted that the fashion of nasta'liq, gold sprinkling, mounting, illustration, illumination, and other fitting adornments emerged from that time onwards.⁷⁷

Imagine then, Piri Reis the young mariner, following in the footsteps of his uncle, the great Kemal Reis, growing up in Gallipoli where the Aegean Sea meets the Marmara Sea. Influenced by charts and maps and the talk of mariners, on the one hand, and the rich cultural heritage of his Islamic world, his life must have been filled with images from multiple worlds. To be a cartographer of Piri Reis' caliber on the eve of the sixteenth century one had to bridge the worlds of the sea and of painting. Somewhere toward the end of the fifteenth/early sixteenth century a bomb was dropped on his maritime world: the discovery of America filtering back through the tales of mariner's and ships' assistants. Some sailors showed up with maps depicting this new land. These maps and accounts sent shock waves through the late fifteenth/early sixteenth Ottoman mariner's world. Reis decided to prepare his own charts, no small feat since he needed to bring the old world and the new world together in one space and convince people of a new way of seeing the world around them. We know that Piri Reis understood the importance of illumination and the changing times because he came out with his own mass marketable version of the popular Italian *isolari*: his *Kitab-i Bahriye*. As Hess aptly puts it,

... the life of Piri Reis reflects much of the history involved in the first impact of the Voyages of Discovery on Turko-Muslim lands. ... Caught between the edges

(Istanbul: İletişim, 1998). Books on miniature paintings from this period are too numerous to list. Through his study of late fifteenth and early sixteenth century albums, Roxburgh, *Persian Album*, provides us with a sense of the popularity of hybrid albums containing calligraphy and miniatures. See also, Filiz Çağman and Zeren Tanındı, *The Topkapı Museum: The Albums and Illustrated Manuscripts*, translated and expanded by J. M. Rogers (London: Thames and London, 1986).

⁷⁷ Roxburgh, *Persian Album*, 81-83.

of two civilizations already cast in their molds... the last chapter in the history of this man of action and science saw the Sultan execute his own frontiersman rather than change the institutions which brought the man and the frontier into being.⁷⁸

Piri Reis' mappings heralds the first signs of a hybrid technique of Middle Eastern map-making fused with European influences. This form of hybrid map-making would become popular in the *nakkaşhanes* (Ottoman painting studios) and bring about a new style that can be identified as the expression of classical sixteenth and seventeenth century Ottoman painting and map-making.

It is my hope that this paper will open up new avenues for approaching Piri Reis' work that moves away from the emphasis on matching up coastlines with the European maps of the time to see who beat whom to which place and what bulge first! There is much work to be done in identifying and understanding the iconography of Piri Reis' map. It is a rich subject crying out for greater attention. We are long overdue for an in-depth iconological study of his work.

Searchin' his eyes, lookin' for traces: *Piri Reis' World Map of 1513 & its Islamic Iconographic Connections (A Reading Through Baghdad 334 and Proust)*

Abstract ■ The remnant of the 1513 world map of the Ottoman corsair (and later admiral) Muhiddin Piri, a.k.a. Piri Reis, with its focus on the Atlantic and the New World can be ranked as one of the most famous and controversial maps in the annals of the history of cartography. Following its discovery at Topkapı Palace in 1929, this early modern Ottoman map has raised baffling questions regarding its fons et origo. Some scholars posited ancient sea kings or aliens from outer space as the original creators; while the influence of Columbus' own map and early Renaissance cartographers tantalized others. One question that remains unanswered is how Islamic cartography influenced Piri Reis' work. This paper presents hitherto unnoticed iconographical connections between the classical Islamic mapping tradition and the Piri Reis map.

Keywords: Piri Reis, World Map of 1513, Ottoman Cartography, Islamic Cartography, Islamic Wondrous Tradition, Islamic Manuscript Illumination.

78 Hess, "Piri Reis and the Ottoman Response to the Voyages of Discovery," 37.