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Iran Lost Territories: A Revisited Nineteenth- Century Persia

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Abstract

Over millennia, many territories and countries have been attacked, intruded, captured, or divided. In this research, we debate surrounding the territories that have been lost in Iran (then Persia) over the past. No effort has been made to investigate such territorial claims despite historical knowledge gaps and uncertainties. As such, this first-ever data-driven paper undertook such investigation by digitising two maps prepared based on historical documents by a few well-known Iranian geographical and historical scholars. While we did not check the correctness of the boundaries drawn at that time, we strived to digitise boundaries using GIS methods with high precision. Those boundaries delineated old territories lost during the Qajar dynasty. It was revealed that the country lost a total land area between 1,827,160 km2 and 2,119,349 km2 during the 19th century.

Keywords: Iran; Persia, Qajar; Territory, Historical Atlas.

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1. Introduction

The term territory emerged in Western thought as a central theme in political theory in the seventeenth century (Elden,2013). For the human, "the term territory has an association with fear and violence" (Elden,2010: 807). In Foucault's belief, "the traditional problem of sovereignty was 'either that of conquering new territories or holding onto conquered territory" (cited by Elden,2013:8).

Over millennia, many territories and countries have been attacked, intruded, captured, or divided (Mokhtari Hashi and Naseroleslami,2016; Gharehbeygi and Pourali Otikand,2018). In Europe, as recent as the 20th century, names of several European countries were wiped out from the maps due to the disintegration of territories. In the Middle East, the Sykes-Picot Agreement in 1916 depicts an intentional disintegration drawn on a map. Globally, between 1946 and 1995, the number of countries rose from 74 to 192, of which almost half of these 192 countries had less than 5 million inhabitants (Alisner and et al.,2000). At the heart of these cumbersome intrusions and divisions lies the changed 'border' delimitation. In fact, "no country, empire, or nation has impenetrable borders, whether internal or external, cultural or geographic" (Kashani-Sabet,1997a:20). "In addition to being porous, borders are forever fluid, always shifting" (Neuman,2021:304). Many external and internal factors have exacerbated, abated, or controlled land or sea invasions, creating a contentious environment. Nevertheless, one thing is evident that territorial loss and/or border change have been an outcome for many states. Later, these territorial disputes create more contentious situations, leading to deadly regional wars (Jafari Valdani, 2008; Janparvar,2016).

Historical maps have illustrated details of many wars and adventures, both at seas and lands (Abdi and Isania,2015). It is a truism that "the nation's past could not be narrated without geographic references" (Kashani-Sabet, 1997a:21). What could have shown these geographic references better than maps over the past: "For what better symbolizes the rulers' hold on the territory, what better expresses control over it than a map?" (Revel,1991: 147). With having both symbolic and practical values, maps have become a unique instrument of discovery and a form of power (Revel,1991). They have also become the essential tools to resolve or demonstrate regional disputes and claims while, ironically, played a vital role during the wars .

The notion of ‘lost territories’, rhetoric or actual, has been critically attached to the narrations of many historical and contemporary manuscripts written on Iran (including books and articles). Iran, so-called Persia, lost territories and territory claims, including Afghanistan, Central Asia, the Caucasus and a few other parts, to the British or Russian empires between 1813 and 1885 (Kashani-Sabet,1997a; b; Grigor,2007). Nevertheless, no attempt has been made to explore this loss of land areas quantitatively to the best of our knowledge.

As the first-ever attempt to address this historical knowledge gap, we revisit two maps generated based on the 19th-century events to reveal the country’s total land area loss. Our research data will be based on two thematic maps generated during the mid-20th century and numerical area differentiation of these maps with current Iran’s map to ascertain its lost territories. This new digital map was redrawn based on the Historical Atlas of Iran, published by the Institute of Geography of the University of Tehran (IGUT) in 1971, and the National Historical Atlas of Iran(1999).

Two important notes must be highlighted here. First, there are inevitable erroneous calculations in any map digitalisation undertaking. Our research is not an exception; it could have inevitable inaccuracies due to errors during the map preparation and GIS-based digitisation of the map geostatistical calculations (see 'Discussion'). Second, our prepared digitised map of 2021 includes the contemporary countries' names that were claimed once to be part of Persia’s territory or so-called ‘peripheral territories’ (Grigor,2007). By no means, we intended to resurface such old contentious geopolitical issues, which were beyond the scope of this research goal. Instead, our main discussion would be framed surrounding these old claims' cartographical setting by contextualising those polygonal shapes designated for these land loss claims.

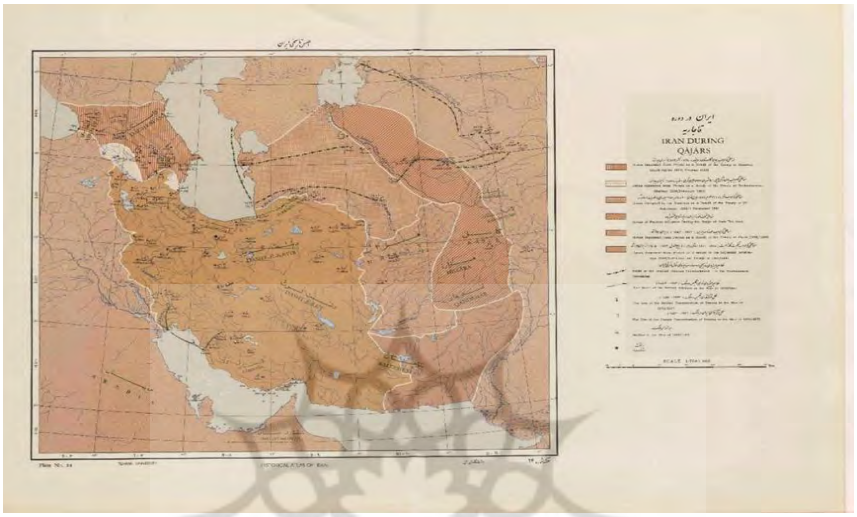
2 .Materials and Methods

2-1 .A Note on 20th Century Maps

Here, we used two maps extracted from the Historical Atlas of Iran prepared by IGUT in 1971 (Figure 1) and the National Historical Atlas of Iran prepared by the National Cartographic Center) in 1999 (Figure 2). Both maps were prepared under the supervision of top Iranian geography and history scientists. Established in 1958, IGUT was the only research centre to propagate top and novel geographical sciences and related interdisciplinary

disciplines.

Figure (1): The Persia Map Generated by IGUT in 1971



(**Source:** Historical Atlas of Iran,1971)

Figure (2): The Persia Map Generated by NCC (National Cartographic Centre) in 1999

(**Source**: National Historical Atlas of Iran,1999)

2-2. 'Qajar Era Segregated Territories' (QEST)

During the Qajar era, Persia lost territories for various reasons according to historical Accords and Agreements concluded between the then rulers of Persia and authorities of other countries. The above-mentioned original maps illustrate an overall map of Persia, including lost territories and their boundaries in each period chronologically. These areas are shown in different brown shades in the original maps (Figure 1 and 2).
We focus on these sections as indicated in the base Persia map. Our digitised map classifies territories lost using capital words (A to F). In this research, we call these sections 'Qajar Era Segregated Territories' (Hereafter 'QEST') (Table 1).

Table (1): Qajar Era Segregated Territories (QEST)

QEST	Descriptions on map (Figure 1)	Historical information/references
A	Areas separated from Persia as a result of the Treaty of Golestan (October 1813)	Kashani-Sabet, 1997b
B	Areas separated from Persia as a result of the Treaty of Torkamanchay (February 1828)	The Treaty forced Iran to renounce the provinces of Erivan and Nakhjavan and imposed an onerous war indemnity on the country (Kashani-Sabet, 1997a, 26)
C	Areas occupied by the Russians as a result of the Treaty of 9 December 1881	Kashani-Sabet, 1997b
D	Areas of Persia influence during the reign of "Fath Ali Shah" which were separated later	
E	Areas separated from Persia as a result of the Treaty of Paris (1857)	The Treaty of Paris (1857), signed between Great Britain and Iran, forbade the shah from interfering in the affairs of Herat, and therefore from claiming the city (and the region) as Iranian (Kashani-Sabet, 1997a, 27)
F	Areas separated from Persia as a result of the Goldsmid Arbitration (1871) and the Treaty of 1905	Mojtahed-Zadeh, 1993

(**Source:** Research Findings: Note: Descriptions of the second map were not included in this table)

2-3. GIS-based Digitisation and Geo-Statistical Calculations

Generally, maps retrieved from old atlases suffer from the lack of spatial references, and thus, ground-truthing is required in many instances to be used in any GIS-based platform (Molnár, 2010; Cura et al., 2018; Uhl et al., 2018). This process is called Geo-referencing, in which the locations are assigned to geographical features within a geographic frame of reference

(Yao, 2009).

We geo-referenced the scanned maps of 1971 and 1999 in three steps (Cura and et al.,2018). The first step was to choose a spatial reference system as geographical or projected. Since the Coordinate grid of the original historical atlas map was geographical, we applied the geographic coordinate system. In the second step, we identified geographical features on historical maps by determining geographical coordinates, known as Ground Control Points (GCPs), and selected them in Geo-referencing. In addition, to coordinate the grid around the map, we used fixed geographical features such as the borders of islands, lakes, straits and estuaries as GCPs. In the third step, we selected a Geometric Transformation Model. Various transformation models have been proposed for this purpose, for which we have chosen the 1st order polynomial (Affine). After geo-referencing and obtaining the results through digitizing the historical boundaries from the maps, a spatial database was formed, and the possibility of extracting information was tested. By integrating this information with the current borders of the countries, we estimated the areas lost for each QEST.

3. Results

The total land area for Iran heartland was calculated as 1,621,475.969232 Km^2 (excluding water bodies) which shows high similarity with the total land area cited officially for contemporary Iran (1,628,760 km^2: excluding area under inland water bodies, national claims to continental shelf, and exclusive economic zones) (Knoema,2021). It proves the high accuracy of our digitisation procedure.

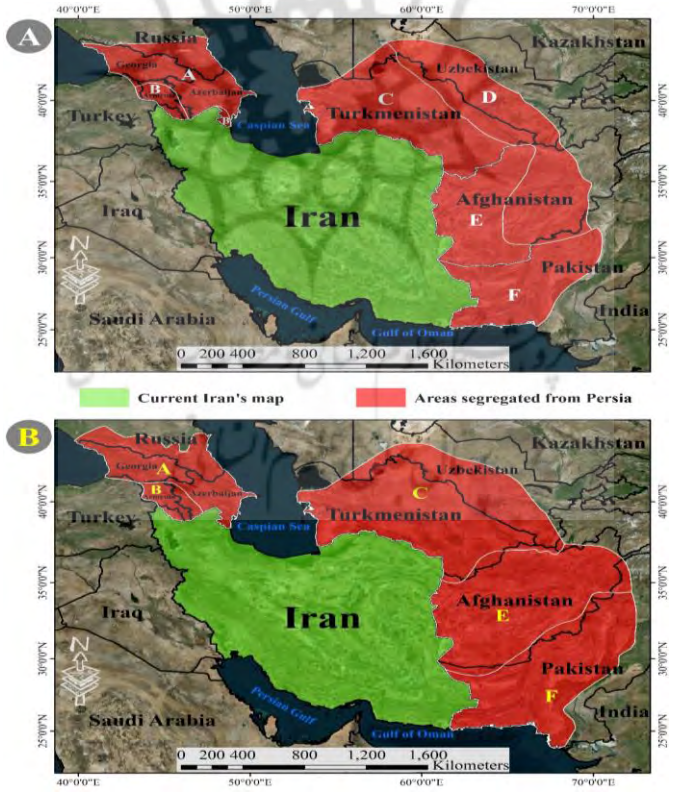
Based on the original Iran base maps, we extracted the areas lost for each QEST for two maps (Table 2; Figure 3). Our result showed that the Persia's territory lost between 1,827,160 km2 and 2,119,349 km^2 of lands during the 19th century. The total area loss (Km^2 and %) for each QEST varied, with a range between 2% and 32%. Each original map showed different proportions of lands lost. For instance, for the map 1971, the highest collective territory loss was related to the eastern half areas (87%), covering parts of contemporary countries of Afghanistan, Pakistan, Turkmenistan, and Uzbekistan. The overall segregated territorial areas in Sections A and B (13%) cover the contemporary countries of Armenia, Azerbaijan, Georgia, and Russia. The two countries of Azerbaijan and Georgia showed a higher percentage of coverage in our study.

Table (2): Land aAreas Lost for each Qajar Era Segregated Territories(QEST)

QEST	Location on map	Area (Km^2) (Map 1971)	% of loss (Map 1971)*	Area (Km^2) (Map 1999)	% of loss (Map 1999)*
A	North-west	206,144.213844	11%	219,549.413889	10%
B	North-west	37,155.887411	2%	47,006.497905	2%
C	North-east	408,457.904182	22%	669,474.742012	32%
D	Far east	511,537.819297	28%	-	-
E	East	304,059.093873	17%	610,239.267872	29%
F	South-east	359,805.840669	20%	573,080.068165	27%
Total		1,827,160.759276	100%	2,119,349.989843	100%

*Percentage to the total land area lost in each map compared to the total area presumed intact by the end of the Qajar Era (please refer to Discussion for remarks on accuracies of land areas); QEST: Qajar Era Segregated Territories

Figure (3): Digitised Iran Maps (Shown by Encircled A and B), Historically Segregated Areas (QEST A to F Shown Inside each Map) and Surrounding Countries



(**Source:** Generated based on Figures 1 and 2)

4. Discussion

Maps are not perfectly accurate (Gilmore and Lippitt,2006). The map production processes are approximate, and the accuracy of the resulting map is affected by a variety of error effects (Chrisman,1982). In our case, two specific errors could be found regarding the printed Iran map of 1971: First, the original Iran base map had probably been generated by another national organisation during the mid-twentieth century. Given the low technological facilities, some inherent errors could be inevitable. Second, another error could have arisen from the IGUT staff, who drew borders on the original map to show various QEST losses. These borders were generated based on historical documents with a high degree of certainties, qualitatively and quantitatively. We are not sure if IGUT staff had referred to the exact point mentioned in the historical documents or even those historical Agreements had suggested any particular geographical coordinates. Even there is the possibility of errors for our second map (Map 1999) in which historical boundaries could be generated based on incorrect assumptions.

Such human errors arisen during the typical map-drawing process known as the 'pen and paper' (Chrisman,1982) are inevitable but challenging. A few millimetres of mistakes in the border delimitation could result in thousands of meters of miscalculations of land area loss. Discrimination at borders is one of the sources of interpretation error in map production (Chrisman, 1982).

4-1. Errors in Digitalization Process

Another source of errors in our research could result from the digitalisation processes from scanning to digitising the original maps. Digitising is inherently prone to errors because of cartographical or user faults. Such shortcomings are more severe for historical maps as there usually are nil or limited cartographical features and on-the-ground data. Moreover, the quantity and quality of historical maps and sources are questionable (Lafreniere and Rivet,2010). Regarding historical maps, issues such as map scale, the extent of the settlement, colour, fragility and limitations of handling and preservation, size and format are enumerated as constraints (Lafreniere and Rivet,2010). As such, some authors even suggest that digital recreations of historical maps can only be regarded as representative rather than authentic (Roberts,2017).

Generally, GIS-based mapping suffers from two sources of errors: inherent

and operational (Walsh and et al.,1987). "Inherent error is the error present in source documents. Operational error is produced through the data capture and manipulation functions of a GIS" (Walsh and et al.,1987:1423). In this research, we tried to reduce possible errors during the digitisation process, as our total land area revealed a high similarity to the current Iran map.

4-2. The Status of the 19th-Century Persia

Historically, 19th-century Persia was not a significant country, and, indeed, the opposite is mostly correct. The country primarily comprised deprived agrarian society and has been described as an "economic wasteland, sucked dry by a corrupt political system and foreign exploitation" (Mcdaniel,1971: 36). The weak and corrupt rulers were not militarily, politically, or economically able to confront territorial claims, and the country's boundaries remained fluid (Kashani-Sabet,1997b). As such, the country lost large land areas, as shown in our research.

On the other side of the spectrum, however, the then rulers of Qajar became interested in geography, and their delineation of boundaries initiated the process of shaping national territory (Kashani-Sabet,1997a). In particular, the academic study of geography and cartography became thriving disciplines, and a few notable books and maps were published in this era (Kashani-Sabet,1997b).

5. Conclusion

We could calculate the total land areas segregated from Persia during the 19th century based on two maps drawn by two different organisations several decades ago. By utilising GIS tools, we drew new digital maps and explained those inevitable error sources. One set of inherent errors was related to the old maps and their inaccurate borders showing the areas segregated from Iran due to different interpretations, observations, or access to historical documents. Neither of these ambiguities can become evident to us. Nevertheless, we strived to prepare an accurate GIS-based map with high conformity to Iran's current official land area. Interested scientists and historians are invited to share their reliable sources (including maps) with the authors to generate more accurate calculations and publications.

In sum, it was revealed that Persia could have lost lands equal or even more extensive than its total land areas due to these historical Treaties and Agreements.

6. Acknowledgement
The copyright of the 1971-map included in the historical atlas was sought from IGUT, and we appreciate Dr Maghsoudi, Head of IGUT, for providing us with complimentary access to it.

7. Data Availability Statement
The data that support the findings of this study are available from the corresponding author, QA, upon reasonable request.

References

1. Abdi, A; Isania, H. (2015). The Ideology and Changes in Place's Names in Iran after the Islamic Revolution. Geopolitics Quarterly, 11(38), 115-133. https://dorl.net/dor/20.1001.1.17354331.1394.11.38.5.8. **[In Persian]**
2. Alesina, A; Spolaore, E; Wacziarg, R. (2000). Economic Integration and Political Disintegration. The American Economic Review, 90(5), 1276-1296. Retrieved June 14, 2021, from http://www.jstor.org/stable/2677851
3. Cura, R; Dumenieu, B; Abadie, N; Costes, B; Perret, J; Gribaudi, M. (2018). "Historical Collaborative Geocoding" ISPRS Int. J. Geo-Inf. 7, no. 7: 262. https://doi.org/10.3390/ijgi7070262.
4. Elden, S. (2010). Land, terrain, territory. Progress in Human Geography 34(6), 799–817. 10.1177/0309132510362603.
5. Elden, S. (2013). How should we do the history of territory? Territory, Politics, Governance, 1(1), 5–20. https://doi.org/10.1080/21622671. 2012. 733317.
6. Gharehbeygi, M; Pourali Otikand, S. (2018). Analysis of Iran's International Borders from the Perspective of Stephen Jones. Geopolitics Quarterly, 13(48), 308-33. https://dorl.net/dor/20.1001.1.17354331.1396.13.48.14.1. **[In Persian]**
7. Grigor, T. (2007). Orient Oder Rom? Qajar "Aryan" architecture and Strzygowski's art history. Art Bulletin, 89(3), 562–590. https://doi.org/ 10.1080/00043079.2007.10786361.
8. Jafari Valdani, A. (2008). England's Role in Delimitation of Kuwait and Iraq's Borderlines (According to Britain's Foreign Office Documents). Geopolitics Quarterly, 4(13), 163-196. https://dorl.net/dor/20.1001.1. 17354331.1387. 4.13. 7.1. **[In Persian]**
9. Janparvar, M. (2016). Explain and Leveling Basic Dimensions of Border Studies. Geopolitics Quarterly, 12(44), 100-122. https://dorl.net/dor/20.1001 .1.17354331.1395.12.44.6.8. **[In Persian]**
10. Kashani-Sabet, F. (1997). Fragile frontiers: The diminishing domains of Qajar Iran. International Journal of Middle East Studies, 29(2), 205–234. https://doi.org/10.1017/S0020743800064473.
11. Kashani-Sabet, F. (1997). The frontier phenomenon: Perceptions of the land in Iranian nationalism. Critique: Critical Middle Eastern Studies, 6(10), 19–38. https://doi.org/10.1080/10669929708720098.
12. Neuman, M. (2021). Borders and the Design of the Civic †. 302–307 .
13. Molnár, G. (2010). Making a georeferenced mosaic of historical map series using constrained polynomial fit. Acta Geod. Geoph. Hung 45, 24–30 (2010). https://doi.org/10.1556/AGeod.45.2010.1.5.
14. Revel, J. (1991). Knowledge of the territory. Science in Context, 4(1), 133–

162. https://doi.org/10.1017/S0269889700000181.
15. Knoema, (2021). https://knoema.com/atlas/Iran/Land-area accessed online 12/6/2021.
16. Mcdaniel, R. A. (1971). Economic change and economic resiliency in 19th century Persia. Iranian Studies, 4(1), 36–49. https://doi.org/10.1080/002108 671 08701407.
17. Mojtahed-Zadeh, P (1993). Evolution of Eastern Iranian Boundaries: Role of the Khozeimeh Amirdome Qaenat and Sistan. Unpublished PhD thesis, The School of Oriental and African Studies, University of London .
18. Mokhtari Hashi, H; Naseroleslami, G. (2016). Investigation of the Middle East and North Africa Boundaries from Human Features Perspective. Geopolitics Quarterly, 12(41), 83-103. https://dorl.net/dor/20.1001.1.17354 331.1395.12.41.4.0. **[In Persian]**
19. Uhl, J.H.; Leyk, S; Chiang, Y.Y; Duan, W; Knoblock, C.A. (2018). "Map Archive Mining: Visual-Analytical Approaches to Explore Large Historical Map Collections" ISPRS Int. J. Geo-Inf. 7, no. 4: 148. https://doi.org/10. 3390 /ijgi7040148.
20. Yao, X. (2009). Georeferencing, Geocoding. International Encyclopedia of Human Geography, 458–465. doi:10.1016/b978-008044910-4.00448-x.