

THE ROLE OF GEOGRAPHICAL MAPS IN TERRITORIAL DISPUTES BETWEEN JAPAN AND KOREA

Arnon Medzini

Oranim College of Education, Faculty of Social Sciences and the Humanities, Tivon, Israel
arnon_m@oranim.ac.il

Abstract

Geographic maps and cartographic representations have become the new battle arenas where countries contest claims regarding territorial ownership, the exact location of borders and the names of disputed places. This paper analyzes the role of traditional and digital maps in asserting national identity and reinforcing claims of ownership by examining the case of *Dokdo Island* (South Korean name) or *Takeshima Islands* (Japanese name). According to the research findings, both countries understand that maps from earlier imperialistic periods have no legal value in proving their claims of sovereignty. Nevertheless, both make extensive use of historical maps as perceptual and propaganda weapons in order to gain a moral advantage in presenting their territorial claims as well as to shape the collective national consciousness.

Keywords: Geopolitics, Google Maps, cartography, border disputes, political maps.

1. INTRODUCTION

National identity and defined territory are two important components in establishing a sense of nationalism. The myths of a particular nation emerge from the association between these two components, and its maps serve as a tool for expressing this association.

Geographic maps, and particularly political maps, are educational tools (Leuenberger & Schnell, 2010; Pickles, 1992) that exert a great deal of influence in shaping or changing worldviews. Maps help create national narratives and affect how national images, power relations and values are formulated. Moreover, they influence knowledge perception and interpretation and the cultivation of distrust in the other in the context of territorial claims. Thus, the appearance of a nation's maps is of prime importance in how readers interpret these maps (Austin, 2012).

Critical cartography research began to develop toward the end of the 1980s. Geographer J. Brian Harley was the first to develop theories regarding the significant power of cartography as well as the subjectivity of cartographers, who cannot avoid representing their own worldviews and social and cultural values in the maps they produce (Harley, 1988). According to Harley, "maps are the products of power and they produce power." In contrast to the scientific view that sees maps in essentialist terms, Harley cast maps as social constructions and as expressions of power/knowledge (Kitchin & Dodge, 2007).

Today cartography is based on aerial and satellite photographs and on engineering and mathematical calculations. For this reason, people think of it as an exact science and tend to trust maps (Monmonier, 1996; Wood, 1992; Wood, 2010; Leuenberger & Schnell, 2010). Yet research by geographers, historians, cartographers and political scientists who have continued

to develop Harley's theories has cast doubts on the ostensible objectivity of cartography (Collins-Kreiner et al., 2006; Crampton, 2001; Kosonen, 2008).

Research studies have attempted to examine maps in the cultural context of their producers them according to the mappers' motives, the publishers' interests, the sponsors' policies, the public's expectations and the balance of powers in the society that produces and uses them (Wood, 1992; Agnew, 1999; Harley, 2001). These studies led to increasing recognition that not only are maps culturally misleading, they also must be understood as part of a deeper ideological-political reality (Leuenberger & Schnell, 2010; Pickles, 2004). Maps provide a point of departure for interpretations of reality. The cartographers who explain this reality are subjective human beings whose work is influenced by their political and cultural perceptions (Harley, 1990; Monmonier, 1996; Crampton, 2001; Pickles, 1992).

The term "map" has also been used in psychological and intellectual contexts. Mental or cognitive maps reside in our emotions or in our minds and are therefore not visible. These maps have a major impact on determining how individuals make vital decisions, such as how to choose a place to live and or work, how to decide where and how to spend their leisure time, how to navigate through the city and how to plan their morning route to work (Portugali, 1996).

While cognitive maps are personal and generated in the mind of each individual, some groups share similar cognitive maps. For example, the collective maps shared by national groups, ethnic groups, social groups and the like resemble a common language, and members of different groups are likely to build different maps describing the same phenomenon or the same territory. Collective maps usually that are an integral part of the culture in which people live. These stereotypes are indeed influenced by distinctions between groups, but their primary influence derives from the ways groups relate to one another. When the interests of two groups are at odds, negative stereotypes will emerge (Ager, 1978; Pickles, 2004).

To reiterate, maps describe power relations and worldviews (Culcasi, 2006). Maps can convey "made to order" reality that transcends physical reality, thus turning maps into powerful political tools. This conveyed reality encompasses demands of civilian or military authorities to censor or cover up certain topics or to stress national, economic, political or social issues (Andersson, 2013). National states, the supreme sovereign bodies in the modern age, understood the constructivist power of maps so that until recently cartography was nationally administered (Meishar-Tal, 2014).

In disputes, maps serve as perceptual and propaganda weapons in putting forth the territorial claims of each party. Those who commission the maps deliberately exploit cartographic tools to design maps intended to deliver their messages and create their own "truth." These maps focus only on those facts or apparent facts likely to shape the observer's worldview or those in line with the direction desired by the one who commissioned the map (Herbert, 2011). Mark Monmonier's iconic book *How to Lie with Maps* (Monmonier, 1996) demonstrates how and why mapping is manipulated.

Conflicts over territorial ownership, the exact location of borders and the labeling of places on maps exist almost everywhere in the world and constitute one of the most sensitive geopolitical issues in international relations. Google's technical adviser notes that the company has received at least 250 complaints from various countries regarding where borders should be placed and how place names should be marked on Google Maps (Jones, 2008). Often the parties involved in a conflict argue over the exact location of a borderline or over territorial ownership, each basing its legal arguments on maps they believe prove the legitimacy of their claims (Weissberg, 1963; Turnbull, 1993). The parties to the dispute tend to use maps as evidence of their ownership over disputed land/territory or as evidence of the exact location of borderlines between countries (Hyung, 2005). Hence, maps can constitute a decisive legal factor in settling international disputes (Kaikobad, 2002).

International courts and courts of arbitration are aware that in many cases the "reality" represented on maps is not objective and consequently tend to disregard map-based evidence as proof of territorial ownership. Official maps prepared and certified by official government bodies receive similar treatment. Therefore, in every case where a written agreement between countries contradicts what is shown on the map, the written agreement is binding (Hyung, 2005; Austin, 2012).

Most research involving geopolitical analysis of maps has considered traditional maps drawn on paper. Today, however, the public gets most of its information from online maps available on the internet (Andersson, 2013). Cartography has shifted to a digital environment and the internet now makes it possible to produce and disseminate maps easily and quickly. These maps are more current and include information from new and diverse fields. In contrast to traditional maps, the digital environment also enables users to use interactive tools and other functions (Meishar-Tal, 2012). In addition, capabilities for enlarging maps and adding additional layers of information have eliminated limitations on the amount of information displayable on printed maps. Digital maps therefore have a greater impact on people's worldviews and opinions. Moreover, digital maps have made people more aware of their geographic surroundings and thus increased their regional geopolitical consciousness.

Google Maps and Google Earth were first launched in 2005. With over one billion users each month, they are now the world's most predominant source of cartographic knowledge (Gravois, 2010; Google, 2011; *The Economist*, 2014). Now that maps are online and can take advantage of satellite imagery, they are more detailed, accurate and multi-dimensional than ever. Recent studies (Crampton, 2009; Sheppard & Cizek, 2009; Gravois, 2010) show that Google has taken over map production from sovereign nations and is undermining their authority in mapping their territory (Meishar-Tal, 2014). Google, a US-based company, must conform to United States security regulations, such as rules regarding the resolution of its maps. Yet the company has autonomy in making decisions with respect to marking borderlines and labeling place names (Quiquix, 2014).

The entry of Google and similar companies into the field of mapping constitutes a new milestone in the development of power relations deriving from changes in the sources of map production. Google's cartographic technology, which enables the creation of information layers on maps, provides countries, organizations or stakeholders with the possibility of tagging information on maps and even of using the layers as a platform for political propaganda by creating maps displaying virtual conveyed reality. Thus, digital maps have become a new battle arena between nations embroiled in territorial disputes, with each party to the dispute submitting maps compatible to its point of view (Quiquix, 2014).

The issue of labeling names on maps requires cartographers to be particularly sensitive (Azaryahu & Golan, 2001). In many cases, place names symbolize independence and are a source of national pride. They express ownership and a sense of belonging and serve as an ideological tool for establishing sovereignty (Pickles, 1992). Indeed, names express power relations and the labeling of places on the map makes a political statement. Mappers seek to win the trust of map users and hence cannot avoid references to places that are the subject of sensitive geopolitical disputes.

Since the launch of Google Maps, circumstances have forced its creators to provide multiple interpretations of the Earth's geography and to adjust these to the sensitivities of global geopolitics (Google, 2009). Google's technical advisor notes that Google must seek cartographic solutions for approximately 250 international conflicts regarding borderlines and place names (Jones, 2008). Of these, Google is having difficulty finding cartographic solutions for 32 border disputes (Yanofsky, 2014).

Google claims it attempts to maintain neutrality and objectivity in the hope of meeting the expectations of most map users (Google, 2009). Yet this is not always possible. As a result of

Google's attempt to remain neutral in international geopolitical disputes, 32 countries today do not have clearly delineated borders on Google (Yanofsky, 2014). Moreover, in an attempt to avoid taking sides in sovereignty disputes, Google tries to use only local names recognized by certified international bodies, such as United Nations publications (though many countries also suspect the UN of having political interests) (McLaughlin, 2008). Another Google solution is to mark the borders between countries using a special line indicating disputed borders. Sometimes Google even refrains from marking the border, as in the case of the map of China appearing on local servers in China (Jones, 2008).

This paper examines the political use of geographic maps in struggles over territorial ownership and national identity, as well as the solutions Google has chosen to avoid being party to territorial disputes. To exemplify this point, the paper discusses the case of the dispute between Japan and Korea over ownership of *Dokdo Island* (South Korean name) or *Takeshima Islands* (Japan's name) and the disagreement between these two countries over the name of the Sea of Japan.

2. THE DISPUTE BETWEEN JAPAN AND KOREA OVER OWNERSHIP OF DOKDO ISLAND (SOUTH KOREAN NAME) OR TAKESHIMA ISLANDS (JAPANESE NAME).

The disputed area is a group of islands situated between Japan and Korea. Both countries claim ownership of this small group of volcanic islands (total area 0.2 square kilometers) located in the Sea of Japan (Japanese name) or in the East Sea (Korean name). This group, situated 215 kilometers from Korea and 250 kilometers from Japan, contains two large islands and around 30 small islets. The region is abundant in fish and apparently has natural gas reserves as well. Today the islands are under Korean rule and constitute the last territory remaining in dispute between Korea and Japan since the peace treaties signed at the end of World War II.

The two countries' conflicting claims of territorial ownership of the islands find expression in three areas: contrasting interpretations of historical facts regarding ancient historical ownership of the islands; contrasting interpretations regarding the legality of Japan's annexation of the islands during its war with Russia in 1905; and contrasting interpretations of the peace treaty signed between Japan and Korea in San Francisco in 1951.

Both countries claim long-lasting historical ties to the islands. Both corroborate their major claims through a variety of documents and historical maps. Moreover, each country attempts to undermine the historical claims of its opponent.

The Japanese base their territorial claims (Ministry of Foreign Affairs of Japan, 2013) on documents dating back to the 17th century showing that the islands were part of Japanese territory and were used for fishing and as hunting grounds for sea lions (Hyung, 2007). From the cartographic perspective, Japan offers a variety of historical maps to prove its ownership of the islands. The oldest such map, drawn by Japanese cartographer Nagakugo Sekisui, dates back to 1779 (Ministry of Foreign Affairs of Japan, 2015). Japan claims that the Japanese government reaffirmed its sovereignty at the beginning of the 19th century and subsequently when Japan re-annexed the islands to the Empire in 1905. Therefore, according to Japan, Korea's annexation of the islands in 1952 violates international law because the islands are not included in the territory returned to Korea according to the 1951 Treaty of San Francisco (Sean, 2005).

The Koreans base their historical claims on documents dating back to the sixth century CE, on maps describing the borders of Japan in 1667 (Barber, 2015) and on a wide range of maps, mainly from the 18th and 19th centuries (Van Dyke, 2007). Korea demands international recognition of its sovereignty over the islands since it gained political

independence in 1945. For Korea, the Dokdo/Takeshima conflict can only be understood from the perspective of its experience as a Japanese colony. Japan formally annexed the Dokdo/Takeshima islets in February 1905, five years before Korea was effectively forced to surrender its entire territorial sovereignty to Japanese colonial control. The period of Japanese rule lasted 35 years, from 1910 to 1945, when Japan surrendered after World War II (Bowman, 2014). Korea questions the legality of Japan's annexation of the islands during the 1905 Russo-Japanese War, stressing that Japan's ownership claims derives from a continued tradition of Japanese colonialism and imperialism.

In 1952, Syngman Rhee, president of South Korea, unilaterally decided to extend Korea's territorial waters and its economic borders (Ministry of Foreign Affairs of Japan, 2015b). The new border, marked on the maps as the Syngman Rhee Line, in effect annexed the chain of islands to Korea (Ministry of Foreign Affairs of Japan, 2013). This boundary line gave rise to the current territorial dispute between the two countries (Sakamoto, 2013), which after 65 years only appears to be getting stronger.

Several times since 1954 Japan has asked to bring up this territorial dispute for discussion in the International Court of Justice (ICJ) (Miller, 2014), but Korea has consistently refused (Ministry of Foreign Affairs of Japan, 2015C). The official Korean position is that there is no dispute about the islands since they are an integral part of Korean territory both for geographical and historical reasons and by international law. Over the years, Korea has taken a number of steps intended to increase its effective control over the islands. It stationed security forces there, built a lighthouse and a pier, issued stamps with a map of the islands, registered residents as Korean citizens, built a museum and developed tourism to the islands.

In response to these Korean actions, in 2005 Japan began celebrating Takeshima Day to mark Japan's 1905 annexation of the islands. Textbooks are also a weapon the propaganda war between the countries (*Japan Times*, 24/11/2014). In April 2014, the Japanese Ministry of Education issued a directive (*Nikkei Asian Review*, 07/04/2015) mandating the development of new geography and history curricula by 2016 to expand and underline claims that the islands are an integral part of Japanese territory (*Japan Times*, 07/04/2015). This directive immediately aroused sharp protests and anti-Japanese demonstrations in Korea (Reynolds, 2015).

As noted, in recent years digital maps have also become a new field of battle between these two countries. The conflict focuses primarily on how the islands are labeled on maps. Mappers' choice of which name to use for the islands reinforces or weakens the parties' claims of territorial ownership. Maps are seen as perceptual and educational weapons in the territorial claims of each of the parties to the conflict. As such, they are intended to influence worldwide public opinion regarding the territorial dispute. Hence, the foreign ministries and activists in both countries are engaged in mutual attacks regarding the naming of the islands on maps.

As noted, Today Google is the world's largest provider of online maps, and Google's decision to label a place with a particular name is seen as siding with one party to the conflict. Google claims that it strives for neutrality and has recently developed a creative solution: the names of the islands that the citizens of each country see on the maps are in line with their geopolitical perspective. Thus in the case of the territorial dispute between Korea and Japan, Korean citizens see the Korean name Dokdo (Figure 1) on Google Maps, while Japanese citizens see the Japanese name Takeshima (Figure 2). In contrast, those who open the international site for Google maps (google.com) see the name Liancourt Rocks (Figure 3). This name is ostensibly neutral because French whalers gave it to the islands in 1849 and therefore it does not suggest the territorial ownership of either of the disputing countries. Both countries object to Google's creative solution and its attempt to remain neutral in the dispute, claiming that the name on the map must represent the sovereignty over the islands.

Unlike Google Maps, Microsoft's search engine Bing Maps attempts to overcome the dispute and maintain neutrality by labeling the islands with all three names (Figure 4).



Figure 1. Map of the islands on Google Korea¹.



Figure 2. Map of the islands on Google Japan².



Figure 3. Map of the islands on Google International³.

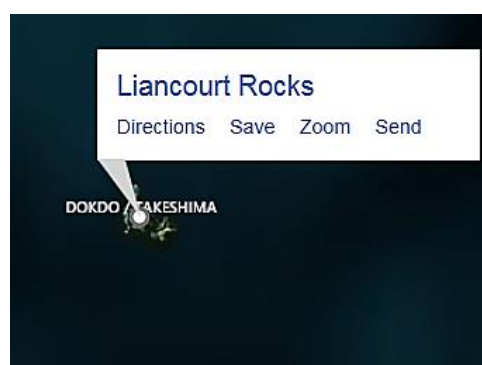


Figure 4. Map of the islands on Bing Maps⁴.

The Japanese government's dissatisfaction with how Google labeled the place names on its maps led it to officially ask local government authorities and universities to stop using Google Maps and to use only maps produced by the Geospatial Information Authority of Japan on which the names were compatible with Japanese Foreign Ministry policy (*Japan Times*, 28/09/2013). The Japanese Ministry of Education also warned teachers not to use unauthorized study materials, among them maps that labeled disputed territories with names that are not Japanese (*Japan Times*, 04/03/2015).

The government of South Korea sharply protested against the Apple Corporation for labeling the islands on its iPhone maps using both the Korean and the Japanese names (*Korea Times*, 11/01/2012). It also launched an extensive public campaign against Google, which decided in 2012 to replace the Korean name Dokdo on its American portal with the name Liancourt Rocks (*Korea Times*, 11/01/2012). In 2012, diplomatic tensions between the two countries worsened when the president of South Korea visited the islands. This first visit of a South Korean president to the islands underscored the country's increasingly nationalistic trends. Some claim that this visit was primarily to boost the president's popularity before the elections. A document prepared by the United States Department of Defense claims that the visit was also a Korean protest against Japan's unwillingness to take responsibility and pay

¹<https://www.google.co.kr/maps/@37.2404575,131.8632536,6010m/data=!3m1!1e3?hl=iw> (10/09/2015)

²<https://www.google.co.jp/maps/@37.2377873,131.8686318,3103m/data=!3m1!1e3?hl=iw> (10/09/2015)

³<https://www.google.com/maps/@37.2415623,131.8658815,15.24z?hl=iw-IL> (10/09/2015)

⁴<https://www.bing.com/maps/#Y3A9cTY3dHpwdnpzY2czJmx2bD0xMyZzdHk9YiZxPSVENVyVBMSVENVyU5QyVENyVBMiVENyU5OSUyMjVENVyU5QyVENyU5OSVENVyU5MjVENVyVBMiVENyVBNyVENyU5NSVENVyVBOA> (10/14/2015)

reparations for using Korean women as comfort women prior to and during World War II (*Japan Times*, 04/03/2015B). In response to this visit, Japan recalled its ambassador from Seoul.

Korean Airlines has also taken an active role in the national effort to represent the Korean narrative to the dispute, using maps to reinforce the national ethos and create a perceptual map of the political space. On flights from Seoul to Tokyo, the airline makes sure to show the disputed islands on the flight map using the Korean name (Dokdo), even though they are insignificant based on their physical size (see Figures 5-6).



Figure 5. Asiana Airlines flight map.



Figure 6. Korean Airlines flight map.

3. DISPUTE OVER THE NAME OF THE SEA OF JAPAN

Japan and Korea also disagree about the correct name of the sea separating the Korean peninsula from Japan (see Figure 7). The Japanese refer to this sea as the Sea of Japan, while the Koreans call it the East Sea. North Korea uses an even more nationalistic name: East Sea of Korea (Lewis, 2012). This dispute is not connected to security or territorial issues or to economic interests but rather to matters of historical memory and national pride.



Source: Sizemore 2014.

Figure 7. Location of the Sea of Japan.

As of today, most international maps and documents use the name Sea of Japan. The International Hydrographic Organization (IHO), an international organization whose main purpose is "to ensure their countries' charts and maps are up to date and compliant with international standards" (Hayashi & Ramstad, 2012), determined this name, which is now internationally accepted.

In 1992, Korea launched an extensive international campaign to change the name from Sea of Japan to East Sea, or alternatively to mark both names on international maps. This campaign continues until today. Japan rejects the Korean demand, claiming that the name Sea

of Japan is the only recognized and authorized international name (Ministry of Foreign Affairs of Japan, 2009).

According to Korea, the Japanese demand to refer to the East Sea as the Sea of Japan arose only at the beginning of the 19th century with Japan's increasing military strength, colonial expansion and control over Korea in the period 1910-1945 (Ministry of Foreign Affairs of Japan, 2003a). For the Koreans, the use of the name Sea of Japan symbolizes a period of colonial humiliation. In contrast, the government of Japan claims that the name Sea of Japan was used in China and in Europe from the 16th century. By the end of the 18th century, when Japan was still an isolated country, the name Sea of Japan was commonly accepted in Europe. In support of its arguments, the Japanese government presents historical maps dating back to 1602 using the name Sea of Japan (see Figure 8).



Source: Ministry of Foreign Affairs of Japan 2003.

Figure 8. Map printed in China in 1602, with the name Sea of Japan printed in Chinese characters.

According to Korea, Matteo Ricci's 1602 map of the world (Roshstein, 2010) already uses the name East Sea and a map from 1615 uses the name Sea of Korea (see Figure 9).



Source: Korean Ministry of Foreign Affairs 2014.

Figure 9. Portuguese map from 1615 with first use of the term Sea of Mar Coria (Korea).

To establish their claims, both countries use historical geographical evidence based mainly on research on ancient maps, though research results yield contradictory data. Korea claims that it examined 228 maps in the American Library of Congress and that 66% of these maps used the name East Sea (Hayashi & Ramstad, 2012; Korean Ministry of Foreign Affairs, 2014). According to the Ministry of Foreign Affairs of Japan, its survey of historical maps covered many more maps than the Korean survey and therefore is more reliable (Ministry of Foreign Affairs of Japan, 2002). The Japanese survey examined 1728 historical maps, and 77% of these used the name Sea of Japan (Hayashi & Ramstad, 2012).

Korea made its first demand to change the name on maps in 1992 at the Sixth United Nations Conference on the Standardization of Geographical Names (United Nations, 2007). Since then, Korea has raised this issue at every possible international forum. In 2012, Korea brought up this issue at the International Hydrographic Organization conference. The IHO decided to defer the Korean request and to discuss it again at its next meeting in 2017 (*Japan Times*, 03/05/2012).

According to the Ministry of Foreign Affairs of Japan, the name Sea of Japan is the only internationally approved name. Beginning in 2004, the United Nations also recognized this name as the official geographic term. Moreover, the UN objects to using both names—Sea of Japan and East Sea—at the same time (Ministry of Foreign Affairs of Japan, 2009).

The U.S. Board on Geographic Names (BGN) officially recognizes the name Sea of Japan and objects in principle to the use of two different names for one geographic region in order to avoid creating confusion (North Pacific Ocean, 2008). The State Department also adopted this decision (NEXTGOV, 24/04/2012).

Since the end of 1990, the Koreans have been the publishers of atlases, maps, dictionaries and encyclopedias as well as on travel guides and newspapers to use the name East Sea or to use both names. This Korean pressure seems to be having an impact (Lewis, 2012). In recent years, more and more maps and atlases have added the name East Sea alongside the name Sea of Japan (Figure 10) (Korean Ministry of Foreign Affairs, 2009).



Source: worldatlas

Figure 10. Use of both names has become more common.

Korea has applied additional political pressure in regions of the United States with large Korean communities, for example the state of Virginia. The residents of this state used their political power to pass a bill requiring that new textbooks printed in the state use the Korean name East Sea instead of the name Sea of Japan. The name East Sea reflects the Korean perspective because in Japan the sea is on the west. This is based on the claim that the name Sea of Japan was unfairly imposed when Korea was under Japanese occupation (Bidwell, 2014). Supporters of the name East Sea also claim that exclusive use of the name Sea of Japan undermines Korean claims of ownership of the Dokdo Islands.

Korea chalked up another victory in 2014 when the Swedish company IKEA stopped distributing a large wall map of the world because it used only the Japanese name of the sea (see Figure 11).



Source: *Korea Times* November 18, 2014

Figure 11. Map of the world that IKEA removed from the shelves.

In the current political climate, it is unlikely the two countries will reach a consensus regarding the name of the sea, thus making it difficult for cartographers to draw the maps. Google found a creative cartographic solution to this conflict, similar to the one used in the dispute over the name of the Takeshima/Dokdo Islands. Citizens of each of the countries see the name of the sea according to their geopolitical worldview (see Figures 12-13). In contrast, on Google's international site (google.com) the sea is labeled as the Sea of Japan.



Figure 12. East Sea as labeled on Google Korea⁵.



Figure 13. Sea of Japan as labeled on Google Japan⁶.

4. SUMMARY

Territorial disputes between countries seem more compatible with 19th century history than 21st century diplomacy. Yet such disputes have the potential to threaten relations between nations. Such is the territorial dispute between Japan and Korea over a small group of islands. This dispute may seem petty in that it focuses primarily on control over territorial waters, fishing rights and perhaps natural gas, but when taking into consideration the harm it has caused to the bilateral relations between these two nations, the conflict is definitely significant. These two groups live in the same geographical area, and each has created its own cognitive map. Each is aware of the existence of the other entity, but pays no attention to the other because each embraces and abides by its own nationalistic social order.

⁵<https://www.google.co.kr/maps/@39.8151133,127.5244424,2968935m/data=!3m1!1e3?hl=iw>

⁶<https://www.google.co.jp/maps/@35.8713311,128.76793,3106473m/data=!3m1!1e3?hl=iw>

Geographical names often have serious implications for the perception of a nation's identity, culture, language and history. Thus, finding a proper name for the body of water between the Korean peninsula and the Japanese archipelago is not just a question of changing the name of a geographical feature. It is rather a part of Korean national efforts to erase the legacy of the colonial past and to redress the resulting unfairness. The emotional weight that South Korea attributes to the issue of territorial ownership of the Dokdo Islands exemplifies the strength of historical memory. This memory unites the Korean people without regard for their political leanings, a rare occurrence in a country that itself is embroiled in ideological and political disputes. Indeed, the hatred for Japan seems to be the only topic on which the two parts of the divided country agree.

Both sides to the conflict present a variety of geographical maps, some hundreds of years old, to prove the justice of their claims, despite their understanding that these maps in essence have no legal value. Moreover, both sides understand that modern perceptions of sovereignty and borders cannot be based upon maps from former imperialistic periods. International courts and arbitration courts also are aware that modern maps are not always objective in presenting reality because cartography has the ability to represent conveyed reality. Thus, courts tend to disregard maps when discussing countries' territorial claims.

In view of this understanding, the two countries' widespread use of historical maps has several other objectives. Maps serve as perceptual and propaganda weapons. They offer a significant moral advantage in presenting the territorial claims of each of the sides. Moreover, they serve as a tool for influencing world public opinion regarding territorial disputes. Maps are also intended to establish an internal political sense of creating historical justice. In a conflict, maps also serve as an ideological tool for educating and shaping ideological perceptions and the collective national consciousness. Thus, the countries make sure to use the "right" maps in their educational systems.

This paper has focused on the sensitivities of Japan and Korea in labeling the names of the Sea of Japan and the Dokdo Islands on maps. The two countries understand that the choice of toponyms appearing on maps is of dramatic geopolitical significance. For each country, these names are major symbols of independence and national pride. For each, the names express ownership and belonging and serve as an ideological tool for establishing a perception of sovereignty. Naming places on the map is also a political statement, for names express the balance of power in a particular space.

Circumstances have forced Google's mappers to offer multiple interpretations of the Earth's geography and to adapt these to global geopolitical sensitivities. Google's policy is to attempt to avoid taking sides in disputes by labeling places using local names and displaying the maps in each country in accordance with its citizens' perspective. Thus, in the dispute over the names of the islands, Google offers three different versions of the map, with each version geopolitically appropriate to the residents of the country that open the digital map. Yet the solution of providing several versions of the map is not acceptable to the countries claiming complete ownership of the territory. Both Japan and Korea strongly object to Google's cartographic solution and have reservations about providing two names on the map. This objection derives from their unwillingness to compromise on territorial matters. Thus, both sides see Google, which chooses the names shown on the map, as the enemy.

REFERENCES

- Abedin, M. 2004. All at sea over 'the Gulf,' Asia Time Online, 9 December: http://atimes.com/atimes/Middle_East/FL09Ak03.html.
- Ager, J. 1978. Maps & Propaganda, *Bulletin, Society of University Cartographers*: 11: 1-15.

- Agnew, J. 1999. Mapping political power beyond state boundaries: Territory, identity and movement in world politics. *Millennium*: 28 (3): 499-521.
- Andersson, E. 2013. Reflections on national geopolitics - how national geopolitics are mirrored in web map services. MA Thesis, Regional Studies Development Geography, University of Helsinki, Department of Geosciences and Geography.
- Azaryahu, M. and Golan, A. 2001. (Re) naming the landscape: The formation of the Hebrew map of Israel 1949-1960. *Journal of Historical Geography*: 27(2): 178.
- Azaryahu, M. and Kook, R. 2002. Mapping the nation: street names and Arab-Palestinian identity: three case studies. *Nations & Nationalism*: 8(2): 195.
- Barber, J.S. 2015. Historical Facts about Korea's Island. <http://www.dokdo-takeshima.com/a-visual-study-of-dokdo.html>.
- Bidwell, A. 2014. Sea Change: South Korea, Japan Lobby Lawmakers over Textbooks. U.S. News. <http://www.usnews.com/news/articles/2014/02/11/sea-change-south-korea-japan-lobby-lawmakers-over-textbooks>.
- Caitlin, D.M. 2012. The Politics of Google's Mapping. GIS Lounge, May 18. <http://www.gislounge.com/the-politics-of-googles-mapping/>.
- Cloughlin, A. 2008. How Google determines the names for bodies of water in Google Earth. Global Public Policy, 8 April. <http://googlepublicpolicy.blogspot.co.il/2008/04/how-google-determines-names-for-bodies.html>.
- Collins-Kreiner, N., Mansfeld, Y., and Kliot, N. 2006. The reflection of a political conflict in mapping: The case of Israel's borders and frontiers. *Middle Eastern Studies*: 42(3): 381-408.
- Crampton, J. W. 2009. Cartography: Maps 2.0. *Progress in Human Geography*: 33(1): 91-100.
- Crampton, J.W. 2001. Maps as social constructions: Power, communication and visualization. *Progress in Human Geography*: 25: 235-252.
- Culcasi, K. 2006. Cartographically constructing Kurdistan within geopolitical and orientalist discourses. *Political Geography*: 25: 680-706.
- Fedman, D.A. 2012. Japanese Colonial Cartography: Maps, Mapmaking, and the Land Survey in Colonial Korea. *The Asia-Pacific Journal*: 10: 52(4). <http://apjpf.org/2012/10/52/David-A.-Fedman/3876/article.html>.
- Gluck, C. 2005. Taiwan protests over Google Map. BBC News, 4 October. <http://news.bbc.co.uk/2/hi/asia-pacific/4308678.stm>.
- Google 2009. When sources disagree: Borders and place names in Google Earth and Maps. Google Public Policy Team Blog: 4 December. <http://googlepublicpolicy.blogspot.co.il/2009/12/when-sources-disagree-borders-and-place.html>.
- Google 2011. Google Earth downloaded more than one billion times. Google Official Blog, 5 October. <http://google-latlong.blogspot.co.il/2011/10/google-earth-downloaded-more-than-one.html>.

- Gravois, J. 2010. The agnostic cartographer: How Google's open-ended maps are embroiling the company in some of the world's touchiest geopolitical disputes. *Washington Monthly*, July/August.
- Guardian (2013). Palestine now recognized by greater power than US or Israel – Google. 3 May.
- Harley, J.B. 1988. Maps, knowledge and power. In *The iconography of landscape*, ed. D. Cosgrove & S. Daniels, 277-312. Cambridge: Cambridge University Press.
- Harley, J.B. 1990. Cartography, ethics and social theory. *Cartographica*: 27(2): 1-23.
- Harley, J.B. 2001. The new nature of maps: Essays in the history of cartography. Baltimore, MD: John Hopkins University Press.
- Hayashi, Y. and Ramstad, E. 2012. South Korea Calls for Sea (Name) Change. *The Wall Street Journal*.
- Herbert, W. 2011. Border bias: Our mental maps of risk and safety rely too heavily on imaginary boundaries. *Scientific American Mind*, March /April: 66-67.
<http://geospatialworld.net/Interview/ViewInterview.aspx?id=30754>
<http://www.theguardian.com/technology/2013/may/03/google-palestine-palestinian-territories>.
<http://www.washingtonmonthly.com/features/2010/1007.gravois.html>.
<http://www.wsj.com/articles/SB10001424052702303978104577359363333588598>.
- Hyung, K.L. 2005. Mapping the law of legalizing maps: The implications of the emerging rule on map evidence in international law. *Pacific Rim Law & Policy Journal*: 14 (I).
<https://digital.lib.washington.edu/dspace-law/bitstream/handle/1773.1/664/14PacRimLPolyJ159.pdf?sequence=1>
- Hyung, N.S. 2007. The Korean-Japanese territorial dispute over Dokdo/Takeshima. Submitted in partial fulfillment of the requirements for the degree of Master of Arts, Naval Postgraduate School, Korea.
- Japan Times. 03/05/2012. Sea of Japan name dispute rolls on.
<http://www.japantimes.co.jp/news/2012/05/03/national/sea-of-japan-name-dispute-rolls-on/#.Vfc4jBFVikp>.
- Japan Times. 04/03/2015. Schools told not to use 'inappropriate' supplementary teaching materials. <http://www.japantimes.co.jp/news/2015/03/04/national/schools-told-use-inappropriate-supplementary-teaching-materials-sankei/#.Veo7shFViko>
- Japan Times. 04/03/2015b. U.S. says 'comfort women' issue was behind Lee's 2012 isle visit. http://www.japantimes.co.jp/news/2015/03/04/national/history/u-s-says-comfort-women-issue-was-behind-lees-2012-isle-visit/#.VfRyuG_ovCM
- Japan Times. 07/04/2015. History in Japan's textbooks gets government makeover. <http://www.japantimes.co.jp/news/2015/04/07/national/history-in-japans-textbooks-gets-government-makeover/#.VenC8BHBzGc>

- Japan Times. 24/11/2014. Like Japan, South Korea embroiled in textbook battle. <http://www.japantimes.co.jp/news/2014/11/24/national/korean-heroine-tortured-by-japan-nationalism-haunt-asias-history-books/#.Veo-bhFViko>
- Japan Times. 28/09/2013. Google Maps naming policy prompts Japan to request home page bans. <http://www.japantimes.co.jp/news/2013/09/28/national/google-maps-naming-policy-prompts-japan-to-request-home-page-bans/#.VfPvJhFVikp>
- Jerusalem Post. 2013. Elkin asks Google to rethink 'Palestine' tagline, 5 June. <http://www.jpost.com/National-News/Elkin-asks-Google-to-rethink-Palestine-tagline-312166>
- Jones, M.T. 2008. It's the people, not the cartographer drawing the maps today. *The Geospatial Industry Magazine*.
- Kaikobad, H.K. 2002. Problems of adjudication and arbitration in maritime boundary disputes. *The Law and Practice of International Courts and Tribunals*: 1: 257–341.
- Kitchin, R.M. and Dodge, M. 2007 Rethinking maps. *Progress in Human Geography*: 31(3): 331–344.
- Kobayashi, S. 2012. Japanese Mapping of Asia-Pacific Areas, 1873–1945: An Overview. *Cross-Currents: East Asian History and Culture Review. E-Journal No. 2*. <http://cross-currents.berkeley.edu/e-journal/issue-2>
- Korea Times. 11/01/2012. What to do with Google, Apple on Dokdo? http://www.koreatimes.co.kr/www/news/biz/2013/08/602_123670.html
- Korea Times. 18/11/2014. IKEA under fire over East Sea. http://koreatimes.co.kr/www/news/biz/2014/11/602_168372.html
- Korea Times. 31/10/2012a. Korea protests to Apple over new iPhone map on Dokdo. http://www.koreatimes.co.kr/www/news/nation/2012/10/120_123560.html
- Korean Ministry of Foreign Affairs. 2009. East Sea in World Map. http://www.mofa.go.kr/english/political/images/res/east_sea_map_2010.pdf
- Korean Ministry of Foreign Affairs. 2014. The Naming Issue of the Sea Area between the Korean Peninsula and the Japanese Archipelago. http://www.mofa.go.kr/ENG/image/common/title/res/East_Sea_2014.pdf
- Kosonen, K. 2008. Making maps and mental images: Finnish press cartography in Nation-building: 1899-1942. *National Identities*: 10 (1): 21-47.
- Kuroiwa, Y. 2011. Northern challenges: The Japan–Russian border dispute and local voices. *Journal of Borderlands Studies*: 26 (3): 283-295.
- Leuenberger, C. and Schnell, I. 2010. The politics of maps: Constructing national territories in Israel. *Social Studies of Science*: 40(6): 803-842.
- Levinson, M.H. 2011. Mapping the Persian Gulf naming dispute. *ETC: A Review of General Semantics*: 68 (3).
- Levs, J. 2012. Iran threatens to sue Google for not labeling Persian Gulf. CNN, 18 May. <http://edition.cnn.com/2012/05/17/world/meast/iran-google-gulf/index.html>

- Lewis, W.M. 2012. The On-Going Japan Sea/East Sea Naming Controversy. GeoCurrents. <http://www.geocurrents.info/geopolitics/the-on-going-japan-seaeast-sea-naming-controversy>
- Mackey, R. 2012. The Google Maps War That Wasn't. The New York Times, February 28. http://opinionator.blogs.nytimes.com/2012/02/28/the-first-google-maps-war/?_r=0
- Medzini, A. 2012. The War of the Maps: The Political Use of Maps and Atlases to Shape National Consciousness – Israel versus the Palestinian Authority. *European Journal of Geography (EJG)*: 3(1): 23-40.
- Meishar-Tal, H. 2012. Google Earth as a reflection of cultural changes and socio-spatial processes in the digital age. *Communique*: 2: 17-31.
- Meishar-Tal, H. 2014. The Israeli-Palestinian Dispute Makes its Way to Google Earth. *geo-network* 7 1-10. <http://www.geo-network.bgu.ac.il/files/7-1/Meishar-Tal.pdf>
- Ministry of Foreign Affairs of Japan. 2002. Sea of Japan. <http://www.mofa.go.jp/policy/maritime/japan/pamph0208.pdf>
- Ministry of Foreign Affairs of Japan. 2003. History of the name 'Sea of Japan'. <http://www.mofa.go.jp/policy/maritime/japan/history.pdf>
- Ministry of Foreign Affairs of Japan. 2003a. The Study of maps possessed by the British Library and the University of Cambridge. <http://www.mofa.go.jp/policy/maritime/japan/study-f.html>
- Ministry of Foreign Affairs of Japan. 2009. Sea of Japan is the only internationally established name for the sea area concerned. <http://www.mofa.go.jp/files/000080252.pdf>
- Ministry of Foreign Affairs of Japan. 2013. Takeshima Seeking a Solution based on Law and Dialogue. <http://www.mofa.go.jp/files/000018520.pdf>
- Ministry of Foreign Affairs of Japan. 2015. Recognition of Takeshima in Japan. http://www.mofa.go.jp/a_o/na/takeshima/page1we_000057.html
- Ministry of Foreign Affairs of Japan. 2015b. Establishment of 'Syngman Rhee Line' and Illegal Occupation of Takeshima by the Republic of Korea. http://www.mofa.go.jp/a_o/na/takeshima/page1we_000064.html
- Ministry of Foreign Affairs of Japan. 2015c. An Outline of the Japanese Position on Sovereignty over Takeshima and the Illegal Occupation by the Republic of Korea. <http://www.mofa.go.jp/region/asia-paci/takeshima/position.html>
- Monmonier, M. 1996. How to Lie with Maps. Chicago, IL: The University of Chicago Press.
- NEXTGOV. 24/04/2012. Sea of Japan Dispute Tops White House Petition Site. <http://www.nextgov.com/technology-news/tech-insider/2012/04/sea-japan-dispute-tops-white-house-petition-site/55372/>
- Nikkei Asian Review. 07/04/2015. Japanese textbooks toe government line on disputed islands. <http://asia.nikkei.com/Politics-Economy/Policy-Politics/Japanese-textbooks-toe-government-line-on-disputed-islands>
- North Pacific Ocean. 2008. Sea of Japan. <http://www.pmel.noaa.gov/np/pages/seas/sjp.html>

- Pickles, J. 1992. Texts, Hermeneutics and Propaganda Maps. In *Writing Worlds: Discourse, Text, and Metaphor in the Representation of Landscape*, eds. T.J. Barnes and J.S. Duncan, 193–230. London: Routledge.
- Pickles, J. 2004. *A history of spaces: cartographic reason, mapping and the geo-coded world*. London: Routledge.
- Portugali, J. 1996. Maps that are hidden from the eye. *Mishkafayim*: 27: 44-47 (Hebrew).
- Quiquívix, L. 2014. Art of war, art of resistance: Palestinian counter-cartography on Google Earth. *Annals of the Association of American Geographers*: 104(3).
- Rawson, H. 2012. Political Geography. 18 June 2012. <http://dictionaryblog.cambridge.org/2012/06/18/political-geography/>
- Reuters. 2010. Cambodia blasts Google map of disputed Thai border. Feb 5. <http://www.reuters.com/article/cambodia-google-idUSSGE61406G20100205>
- Reynolds, I. 2015. South Korea Blasts Japan's Island Claims in History Texts. <http://www.bloomberg.com/news/articles/2015-04-06/south-korea-blasts-japan-s-island-claims-in-history-texts>
- Rose, A. 2012. Maps as discourse in the borderlands: An analysis of the cartographies of power on the U.S.-Mexico 'frontier'. MS Thesis, Department of Environmental Studies, Western Washington University.
- Roshstein, E. 2010. A Big Map That Shrank the World. *The New York Times*. <http://www.nytimes.com/2010/01/20/arts/design/20map.html?pagewanted=1&r=2>
- Sakamoto, S. 2013. International Symposium in Korea on the Takeshima Dispute. Review of Island Studies. <http://islandstudies.oprf-info.org/readings/b00001/>
- Schnell, I. and Leuenberger, C. 2014. *Transactions of the Institute of British Geographers*. Oct, 39(4): 518-531.
- Sean, F. 2005. Tokdo or Takeshima? The International Law of Territorial Acquisition in the Japan-Korea Island Dispute. *Stanford Journal of East Asian Affairs*: 78-89.
- Sheppard, S.R.G. and Cizek, P. 2009. The ethics of Google Earth: Crossing thresholds from spatial data to landscape visualization. *Journal of Environment Management*: 90: 2102-2117.
- Sizemore, B. 2014. Virginia legislature takes a stand on Asian geography. [pilotonline.com. http://hamptonroads.com/2014/02/virginia-legislature-takes-stand-asian-geography](http://hamptonroads.com/2014/02/virginia-legislature-takes-stand-asian-geography)
- South China Morning Post. 25/02/2015. The lines that define the rocky relationship between Japan and South Korea. <http://www.scmp.com/news/asia/article/1722684/lines-define-rocky-relationship-between-japan-and-south-korea>
- Taylor, A. 2013. The 11 most controversial places on Google maps. 16 May. <http://www.businessinsider.com.au/most-controversial-places-on-google-maps-2013-5>
- The Economist. 2014. How Google represents disputed borders between countries. Sep 3. <http://www.economist.com/blogs/economist-explains/2014/09/economist-explains-1>

- The Kashmir Telegraph. 2009. Google Inc. Questions Territorial Integrity of India; Misrepresents, Distorts Map of India. 15 Nov. <http://www.kashmirtelegraph.com/2009/11/google-inc-questions-territorial.html>
- Turnbull, D. 1993. *Maps are territories: Science is an atlas*. Chicago IL: University of Chicago Press.
- United Nations. 2007. Ninth United Nations Conference on the Standardization of Geographical Names. On Correcting the Inscription of "Sea of Japan." http://unstats.un.org/unsd/geoinfo/UNGEGN/docs/9th-uncsgn-docs/econf/9th_UNCSGN_e-conf-98-53-add1.pdf
- Van Dyke, J.M. 2007. Legal Issues Related to Sovereignty over Dokdo and Its Maritime Boundary. *Ocean Development and International Law*: 38: 157-224.
- Weissberg, G. 1963. Maps as evidence in international boundary disputes: A reappraisal. *The American Journal of International Law*: 5: 7781-803.
- Wood, D. 1992. *The power of maps*. New York, N.Y.: The Guildford Press.
- Wood, D. 2010. *Rethinking the power of maps*. New York, N.Y.: The Guildford Press.
- Worldatlas. 2016. Map of East Sea, East Sea Location Facts, Major Bodies of Water, Sea of Japan. <http://www.worldatlas.com/webimage/countrys/asia/eastsea.htm>
- Yanofsky, D. 2014. Here are the 32 countries Google Maps won't draw borders around. 10 June. <http://qz.com/218675/here-are-the-32-countries-google-maps-wont-draw-borders-around/>