

Navigare Necesses Est! Maritimity and the Prospect of a Korean Blue Water Navy

Karl Hwang*-Ph.D Student of Political Science, Hamburg University, Germany

Received: 09/08/2008

Accepted: 17/2/2009

Abstract

Alexander Supan (1847-1920), an Austrian geographer, was a major contributor to German geopolitics with his work "Guidelines of General Political Geography" (Leitlinien der allgemeinen politischen Geographie). The quantitative aspect of his work consists of two innovations: (1) the maritimity quotient quantifying the relation of maritime borders to land borders and (2) the pressure quotient quantifying the relation of external pressure to internal pressure in terms of power. In this paper I use adaptations of these formulas to deliver results for several countries that have relevance for Northeast Asia, explore the relationship to naval expenditure and, in the light of those results, discuss the implications and prospects for the two Koreas.

Keywords: Geopolitics, Maritimity, Pressure quotient, Naval spending, Korea.

* E-mail: conducator@gmail.com
<http://conducator.googlepages.com>

1. Introduction

According to the Greek historian Plutarch (46-127), Pompey (106-48 BCE) used the following words to encourage his crew to set sail for Rome in atrocious weather: “*Navigare necesse est vivere non est necesse*” (‘Sailing is necessary, living is not necessary’). This maxim has been used several times since then to emphasise the need for sea power. Austrian geographer and pioneer geopolitician Alexander Supan developed maritimity as a unique concept to calculate connectedness to the sea of any given country based on the relation of maritime borders to land borders. I use North and South Korea to illustrate this calculation of maritimity. The resulting scientifically-based conclusion is that, from a geopolitical point of view, the two Koreas should regard more naval spending as appropriate and beneficial.

2. Research Method

Alexander Supan must be seen in the context of general German geopolitics, so in Section Three I provide a short introduction to this subject. I introduce the three famous geopoliticians Ratzel, Kjellen and Haushofer, the difference between political geography and geopolitics, and a detailed definition of geopolitics from 1932 which summed up the various tenets of German geopolitics at that time. Alexander Supan’s contribution as a pioneer is placed in this context.

In Section Four I develop the notion of the geopolitics of the sea by exploring original material from the *Zeitschrift für Geopolitik* [Journal of Geopolitics] (1924-1944). A 1940 article by Hermann Röckel is especially illuminating in this regard, because German geopolitics has tended to be much more focused on issues pertaining to the land than to the sea. The sea’s lack of defining geographical and hence strategic features makes sea power a much more nebulous proposition.

In Section Five I extend this discussion of sea space into a more general discussion of sea trade and globalization. I show conceptually how sea trade calls for military presence on the sea as well. An article by Hans Hiss in the *Zeitschrift für Geopolitik* [Journal of Geopolitics] on globalization has lost none of its actuality given current globalization and sea trade.

While in Sections Three to Five I provide the basic background foundation for looking at the geopolitics of the sea, in Section Six I calculate and apply the formulas of Supan with minor modifications. In Section Three I predict naval spending on the basis of maritimity and I

compare predicted results to actual naval spending in Northeast Asia.

Geopolitics has always aspired to give practical advice, so in Section Six I develop a vision for the two Koreas in which they improve their naval capacities based on the assumable advantages of a joint naval strategy. In this section I also discuss South Korean commercial shipbuilding capacities along with North Korean submarine building capacities as the means to provide a solid foundation for the feasibility of such a joint naval strategy.

3. Quick Introduction to German Geopolitics

In 1897 the German geographer Friedrich Ratzel (1844-1904) laid the foundation of geopolitics when he published his seminal *Politische Geographie* [Political Geography]. The term geopolitics itself was first introduced in 1916 in the work *Der Staat als Lebensform* [The State as a Life Form] by the Swedish scholar Rudolf Kjellen (1864-1922). IN 1924-1944 the *Zeitschrift für Geopolitik* [Journal for Geopolitics] was published by Karl Haushofer (1869-1946) and associates. Though many people contributed to the development of German geopolitics, these three names stand out as the founders of German geopolitics.

Alexander Supan was an Austrian geographer who spent the latter part of his life living and teaching in Germany as professor at the University of Breslau in Silesia. His early major work was *Die Grundzüge der physischen Erdkunde* [The Foundations of Physical Geography], which contained the interesting sentence “that the so-called political geography, that is, the theory of state building in the immediate present, must not find a place in the scientific system of geography” (Ratzel, 1923, p. 616). His last years he dedicated to his work *Leitlinien der allgemeinen politischen Geographie* [Guidelines of General Political Geography], which was first published in 1918 before the end of the First World War. The second edition in 1920 contained revisions in response to the dramatic changes that had occurred after the end of that war. Supan died two months after its publication.

The border line between political geography and geopolitics has been fluid. It could be said that political geography has been considered to be strictly attached to geography and more descriptive, while geopolitics has tended to be attached to a wide range of disciplines beyond geography and more prescriptive. Otto Maull depicted geopolitics as applied political geography (Haushofer et alia, 1928, p. 22); Robert Sieger (1864-1926) thought that geopolitics emerges when the predictions start (Maull, 1951, p. 779). As an early work of geopolitics, Supan’s work is more geographical than political

(Haushofer et alia, 1928, p. 15).

A number of people defined geopolitics. The following definitions were made in a joint essay by the three publishers of the *Zeitschrift für Geopolitik* [Journal for Geopolitics], Karl Haushofer, Erich Obst (1886-1981), Otto Maull (1877-1957), and long-time freelance contributor Hermann Lautensach (1886-1971):

1. Geopolitics is the study of the conditioning of political processes by the physical territory on which they take place.
2. It is based on the broad foundations of geography, especially political geography as the theory of states as living political organisms occupying particular territories, and their structure.
3. The essence of regions as comprehended from the geographical point of view provides the framework for geopolitics within which the course of political processes must proceed if they are to succeed in the long term. Though political leaders will occasionally reach beyond this frame, the link to the particular patch of earth on which they act will always eventually exact its determining influence.
4. With this sense in mind, geopolitics aims to provide tools for political action and act as a guidepost in political life.
5. In this way it becomes a theory of art capable of guiding practical politics to the place at which it becomes necessary to make the leap from firm ground. Only in this way will the leap into skilful statecraft proceed from knowledge, rather than from dangerous and erroneous ignorance.
6. Geopolitics wants to, and must, become the geographical conscience of the state (Wittvogel, 1932, p. 532).

Further on, according to Karl Haushofer, geography alone can explain at most 25% of phenomena associated with human development:

It must not be forgotten that the geopolitical approach necessarily requires as its complement man's heroic side, his worship of heroes, and that its focus on geographic causes can help answer only about a quarter of the questions on human development by explaining man as a product of his spatial environment – completely ignoring the other three quarters which have to be explained in conscious, compelling contrast to this environment by looking deep within man and his race and at his moral will (Wittvogel, 1932, p. 588).

4. The Geopolitics of Sea Spaces

From Friedrich Ratzel to Alexander Dugin the difference between land powers and sea powers has been emphasized. The difference between sea space and land space is obviously dramatic (Röckel, 1940, pp. 227-231): nothing can be built on the sea, and sea space can't be properly claimed like land space, which means that sea space has to be constantly reclaimed by regular patrols. It can't be colonized, no permanent footprints rest in this space of transition, and no state exists solely on the sea, so sea space is never state space properly. Land borders are fixed and meant to close and divide land spaces, conversely sea space knows only open borders, which act as a continuous invitation to transit. How strongly a state responds to this invitation depends on the maritime initiative of different nations. Europeans were the first to sail the planet.

The geopolitics of sea space is not focused on areas so much as on strategic points surrounding this space. It is the intertwining and interlinking of spatial points that cause maritime relevance and efficacy. Size and form are relevant categories for land space, but for sea space they are less important because the water surface is fairly monotonous. For sea space the positions matter. The value and power of a specific position in sea space can be referred to as position potential, which is based on some sort of mutual relation, as the position is always determined vis-à-vis some land location and can never be determined by itself alone. Thus the position has a dynamic rather than static character.

The assumption of war may provide an example. For land space the morphology and traffic infrastructure may strategically enumerate and predict more likely locations for battle. When two navies meet for battle on the open sea, the most likely position can in no way be predicted as clearly, for the water a hundred nautical miles south or north may look just the same: little exists that gives a specific position some strategic character. If any likelihood may be calculated, it must be based on harbors or naval bases and the general land-based strategic interest of both sides. For the economies of Northeast Asia the most significant location for strategic orientation is certainly Singapore and the Malacca Straits.



Figure 1. China's Critical Sea Lanes. China is heavily dependent upon critical sea lanes for its energy imports. Some 80% of China's crude oil imports transit the Straits of Malacca (United States Department of Defense, 2007, p. 9).

It is hardly necessary to state that South Korea's situation is worse than that depicted for China, as China is busy building pipelines to Central Asia.

5. Globalization and Sea Trade

Waves of globalization and de-globalization have appeared several times in human history. The following geopolitical observations, which were stated by Hans Hiss in 1929, still apply to globalization and sea trade today:

1. Globalization calls for sea trade
2. Sea trade influences globalization
3. The participation in world shipping leads to new global dependencies (Hiss, 1929, p. 463).

According to Hiss, capitalism intensifies global relationships and promotes bigger and faster shipping capacities. The increasing or decreasing costs of sea trade then either bolster or weaken global relationships. It increases the dependency of those developing countries exporting primary resources to industrialized countries, because low shipping costs keep the technological

advantage of lower manufacturing costs in the industrialized countries.

Dependency on active sea trade may lead to the development of sea power, Friedrich Ratzel:

Sea trade (and thereby any further contact with the sea) leads the state to the ocean surface and forces it to become a sea power (Ganzer, 1929, p. 607).

Sea trade is precarious. It has many advantages compared to land trade, and these contribute to lower costs, but it can be controlled and cut by whatever country is the dominant sea power. Legally, the dominating sea powers generally uphold the principle that sea trade can be interrupted in war, while weaker sea powers generally promote the concept of *mare liberum*, that is, the freedom of the seas (Kenworthy, 1929, p. 855). Italian Admiral Giuseppe Fioravanzo in 1942:

Freedom of the seas is a euphemistic figure of speech to describe the slavery of the seas that the strong impose on the weak (Haushofer, 1943, p. 225).

6. Data and Discussion of Maritimity and Pressure Quotient

Supan (1922, pp. 69-78) determines the political position of a state relative to the position of other states. He is distinctly focused on direct border contact to establish the neighborhood of two states, which is important for the pressure quotient. In affirming the dichotomy of land and sea powers, Supan divides maritime borders by land borders to derive the maritimity quotient that conceptually enables one to split the states of the world into maritime states and continental states. For maritime borders he takes the coastal length of the mainland. He disregards the coastal length of minor islands. Still he cautions that while maritimity in an exact instrument, it is in no way exhaustive in exemplifying the prestige at sea of a given state.

The maritimity quotient apparently fails for Russia, Canada, and to a lesser degree for the United States, that is Alaska, for all the states have long coastlines next to the Arctic Ocean, so the ice makes much of the coast useless for practical maritime activity. For my calculations, I took the coastal length to include that of minor islands, the data being supplied by the CIA World Factbook. For Russia and Canada I have chosen to deduct an arbitrary 80% of coastal length; for the United States an arbitrary 20%. Supan's formula is:

$$\text{maritime borders} / \text{land borders} = \text{maritimity}$$

This equation is modified to obtain percentage values:

$$\text{maritime borders} / \text{total borders} = \text{maritimity percentage value}$$

The following table includes maritimity quotient values for the major participants in Northeast Asian security. Further it includes values for naval spending ratios: For this the number of naval personnel was divided by the personnel of all armed forces; the data was taken from *The Military Balance 2008* (Hackett).

Table 1.	Maritimity Quotient	Naval Spending	Predicted Value	+ / -
United States	57%	38%	15%	150%
Russia	27%	31%	9%	226%
China	40%	17%	12%	44%
Japan	100%	23%	24%	-5%
North Korea	60%	4%	16%	-74%
South Korea	91%	11%	22%	-51%

Predicted Value is a trend value based on what one would expect on the basis of maritimity. The + / - divides actual naval spending values by predicted naval spending values minus one to see how much states are above or below geographical expectations. The correlation coefficient of the maritimity quotient and naval spending is 0.51 for the values of all countries, thus plain geography explains 25% as Haushofer insisted. Obviously wealth, whether aggregate or per capita, could be another factor partially explaining naval expenditures.

Supan emphasizes that insularity is not necessarily something positive, as insularity alone opens a country for invasion from all directions: only a strong fleet can deter such attacks. Peninsulas have the most inauspicious strategic position according to Supan, for they have to maintain an army as well as navy, which means a country has to pay double or neglect one for the other, though this one-sidedness may prove costly again in the next military confrontation.

Supan assumes that every state is in a certain way besieged by the other states, which means that states receive pressure from other states and conversely put counter pressure on other states. Supan divides the population of all neighboring states by the state's population to derive the geographic pressure quotient. Naturally this pressure is constant, even when, especially in war, it develops real significance. Nevertheless Supan notes

that near maritime power (that is countries that are close but separated by sea) also puts pressure on states, but he insists that this trans-maritime pressure is less intensive and constant than continental pressure. Overall it can be said that big states tend to receive less pressure than they convey. Centrally located states tend to receive more pressure than peripheral states.

Supan seems to suggest that he uses population for the determination of this pressure quotient because among different factors it is the easiest available. He explicitly states that one could prefer using the size of the armed forces by military personnel instead of population. The optimal calculation would be based on the energy sums of both sides, but Supan doesn't believe in the possibility of quantifying such adequately, so he realizes that his pressure quotient is a poor proxy, but nevertheless useful. Supan's formula is:

$$\text{state population} / \text{total population of neighboring states} = \text{pressure quotient}$$

This equation is modified to obtain percentage values:

$$\text{State population} / (\text{total population of neighboring states} + \text{state population}) = \text{pressure quotient percentage value}$$

For my calculation I used the size of armed forces by military personnel; data was again taken from *The Military Balance 2008* (Hackett). The following table includes pressure quotient values for the major participants in of Northeast Asian security; the higher the value, the more powerful the country is vis-à-vis its direct neighbors:

Table 2. Pressure Quotient (Military Manpower)				
	Internal	External	Total	Pressure
United States	1,217,454	287,150	1,504,604	80.92%
Russia	1,307,352	5,463,306	6,770,658	19.31%
China	3,386,000	7,436,082	10,822,082	31.29%
Japan	205,453	0	205,453	100.00%
North Korea	1,249,000	5,345,352	6,594,352	18.94%
South Korea	652,000	1,249,000	1,901,000	34.30%

7. A Geopolitical Vision for Korea

Korea is located between the two more powerful states of China and Japan. Long ago, because of its low infrastructure, and arguably nowadays, with the Demilitarized Zone dividing Korea, the northern part can be considered continental, while the southern part can be considered like an island in terms of trade and traffic flow. Due to its position as a land bridge for Japan, Korea had frequently attracted Japanese aggression, which eventually succeeded in conquest and annexation in the 1895-1910 period, when Korea had neither land nor sea power to oppose the Japanese sea power surrounding it. Given that geopolitics is not prone to moralistic outrage (see Appendix A for Haushofer's view on Korea and its annexation by Japan), it should be noted that the Japanese administration had cultural-technological significance (Trautz, 1924, pp. 485-496).

When one is looking at a map of Korea, the most obvious feature is that Korea is mostly surrounded by water, and a maritime vision should go beyond coastal protection (as important as the latter is). South Korea's total dependency on trade by sea certainly justifies increasing measures of military protection of its trade routes, so that its fleet can be in a position to face up to the most powerful fleets in the Pacific Ocean (and by extension the Indian Ocean) and cause considerable damage to them (Gadow, 1924, pp. 979-984). This means in concrete numbers that the South Korean fleet should be about equal size to either the present US Pacific 3rd Fleet, Russia's Pacific Fleet, Japan's Maritime Self-Defense Force, and China's People's Liberation Army Navy.

Table 3. Principal Surface Combatants	Destroyers	Cruisers	Aircraft Carriers
United States - Pacific 3 rd Fleet	24	13	6
Russia - Pacific Fleet	7	1	-
Japan	44	-	-
China	29	-	-
South Korea	7	-	-
North Korea	-	-	-

Table 3, the data coming from *The Military Balance 2008* (Hackett), shows that the South Korean naval strength is far from optimal and is in fact inadequate to protect its trade routes if things ever get rough. Korea, as in

past centuries, depends on the good will of its great neighbors. From the viewpoint of national independence, this situation is unacceptable. By focusing on their domestic enmity rather than their geopolitical position in Northeast Asia, the two Koreas waste too much energy on themselves and not enough on building a credible position of force vis-à-vis their external neighbors.

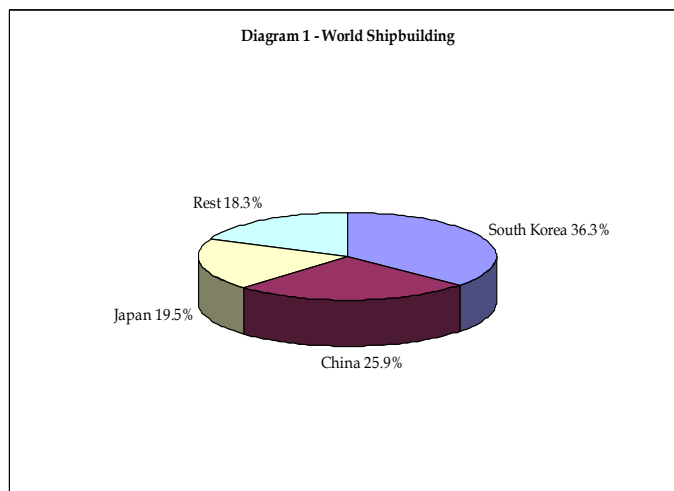


Diagram 1. World shipbuilding – order book by market shares of leading shipbuilding nations as of July 1st, 2007 (cgt %-shares, mill cgt) (Institute of Shipping Economics and Logistics, 2007, p. XVII)

The diagram shows that South Korea is the world leader in commercial shipbuilding, so it's in a comfortable position to build a visible surface fleet, while North Korea is in the better position to build submarines as the underdog vessel of choice (Gadow, 1929, p. 858).

Table 4. Submarines	Tactical	Strategic
United States	27	-
Russian	19	4
Japan	16	-
China	59	3
South Korea	12	-
North Korea	63	-

North Korea has the most submarines, though they are not necessarily the best. In any case North Korea has credible submarine building capacities, which means that North and South Korea could complement their capabilities. Though unlikely, technological and logistical cooperation could be incrementally increased, so that the division of labor is gradually optimized until eventual unification.

The introduction of air power (and, later, missile technology) spelled the eventual end of the era of great battleships (Niemetz, 1940, pp.262-264). For this reason the center of the fleet became the aircraft carrier. A blue-water naval strategy has the following advantages for Korea:

- South Korean military spending can be increased without fueling the security dilemma vis-à-vis North Korea, that is, North Korea won't feel as directly threatened as when money is spent on land or air power. Increased naval power and maritime focus could help de-escalate the general situation.
- Naval power projects power far away, most importantly as far the important Malacca Straits. Further, it can be used for fighting piracy and supporting UN missions and so on. Naval power as such increases the flexibility of the Korean armed forces and promotes Korea's standing to that of a great power.
- Naval power opens incrementally the strategic and military mindsets to think beyond the Korean peninsula. Culturally, navies encourage a more cosmopolitan and cooperative perspective for the whole nation, while armies tend towards more jingoist and repressive styles of thinking.* South Korea and North Korea could complement each other,

*- That the sea is conducive to individual freedom in societies, Hegel writes "In the sea resides the exterior, which is missing in Asian life, the transcendence of life beyond itself."

so South Korea could focus on building a surface fleet, while North Korea continued building and upgrading submarines. This could set an incremental stage for complementary strategic cooperation with long-term unification in mind. A strong navy will make Korea more comfortable with its geopolitical configuration as a peninsular and decrease any inferiority complexes that have built up during centuries of foreign domination, so Korea will feel among equals with regard to other powers and more specifically Japan.*

8. Conclusion

It is always important to keep in mind Haushofer's dictum that geopolitics can predict only 25% of human development, so geopolitics can never explain everything (that is without the help of other disciplines). Nevertheless a comparison of the data on naval spending and the maritimity of all the world's countries yields a Pearson correlation coefficient of 0.51, which confirms that access to water is obviously an important prerequisite to the build up of naval forces. Other important factors, such wealth of and size of the countries, certainly do exist, but they were not the subject of this geopolitical analysis.

The peculiar geopolitical location of Korea as a peninsular between a great continental power, China, and a great island power, Japan, have presented the greatest challenge to Korean independence throughout Korean history. According to Supan it is necessary for a peninsula to maintain well-prepared land forces and sea forces, so neglecting one for the other constitutes an unacceptable strategic vulnerability in the long run.

Due to ideological confrontation the two Koreas have put their main energy into deterring one another rather than looking to the wider horizon. This article proves that naval spending values for both North and South Korea are unnaturally low from a geographically based point of view. North Korea naval spending is estimated at 4%, while its predicted value should be 16% based on 60% maritimity. South Korean naval spending is estimated at 11%, while its predicted value should be 16% based on 91% maritimity.

The principle of the freedom of the individual has thereby become an important aspect of European state activities" (Kiefer, 1938, p. 455).

*- On the decreasing domination by foreign powers, that is the United Kingdom and the United States, in the East Asian sphere, Fecht writes "East Asians are likely to resist a permanent concentration of large foreign forces in their living space after the entry of China into the league of great powers" (Fecht, 1930, p. 398).

Maritimity sets a scientific basis for naval spending and provides reasonable values for naval spending on this scientific basis.

Appendix A Karl Haushofer on Korea

General Haushofer was sent to Japan as a military observer from 1908 to 1910. I translated the first two paragraphs of the tenth chapter “Das gewonnene Land” [“The Acquired Land”] of his first book *Dai Nihon*, which was published in 1913:

The transformation of the 'Korean Empire' into the Japanese province of Choson (as 'the Land of Fresh Morning Air' is called) has been carried out with exemplary smoothness. 'The crab between the whales' was the grimly humorous term in common parlance to describe their own empire, which for many centuries had not been able to defend itself against its powerful neighbours, but which, in the absence of guardianship, would also have been incapable of surviving when it tried to rally itself by adopting the dignity of an empire and erecting an arc of independence in the short break between one whale's swimming off and the other's preparing to swallow. The imperial cloak was too loose for such a run-down body of 12 million people under the leadership of around 400,000 privileged layabouts and a degenerate dynasty, which on top of everything had to feed another two million parasites, namely, the families of the literate military and civilian aristocracy (*yang-ban*) which from time immemorial had been far removed from any constructive activity and lived mostly from extortion.

The suicide of a few honorable men (such as the envoys to St. Petersburg) who had no wish to survive this disgrace of the fatherland and the loss of its independence, as well as a few local uprisings emanating from the ranks of the former Korean army, the *Tonhaks*, which necessitated mass executions in which at least 14,000 patriots may have died for the cause of freedom, alter neither the shameful fact that the majority of the population, above all its natural leaders and its few educated citizens, submitted calmly, if not gormlessly, to the national disgrace, nor the bitter truth that the people as a whole did not deserve a better fate (Haushofer, 1913, p. 187).

References

- Fecht, O. (1930). “Die Seemachtsverhältnisse im indopazifischen Ozean.” *Zeitschrift für Geopolitik*, 7(5), 392-398.
- Gadow, R. (1924). “Ist Seerüstung ein Luxus für Deutschland?” *Zeitschrift für Geopolitik*, 5(12), 979-984.
- Gadow, R. (1929). “Die Friedenspolitik McDonalds.” *Zeitschrift für Geopolitik*, 6(10), 857-861.
- Ganzer, K. (1929). “Zur Geopolitik der Fischerei.” *Zeitschrift für Geopolitik*, 6(7), 603-607.
- Hackett, J. (Ed.). (2008). *The Military Balance 2008*. London, United Kingdom: Europa Publications.
- Haushofer, K. (1913). *Dai Nihon: Betrachtungen über Groß-Japans Wehrkraft, Weltstellung und Zukunft*. Berlin, Germany: Ernst Siegfried Mittler und Sohn.
- Haushofer, K. (1943). “Freies Meer, Ozeanpolitik, Seegeltung und Geopolitik von Meeresbecken.” *Zeitschrift für Geopolitik*, 20(6), 224-225.
- Haushofer, K., Obst, E., Lautensach, H., & Maull, O. (1928). *Bausteine zur Geopolitik*. Berlin-Grunewald, Germany: Kurt Vowinckel Verlag.
- Hiss, H. (1929). “Weltwirtschaft und Seeverkehr.” *Zeitschrift für Geopolitik*, 6(6), 463-469.
- Institute of Shipping Economics and Logistics. (2007). *Shipping Statistics Yearbook 2007*. Rotenburg, Germany: Druck und Medien Kontor.
- Kenworthy, J. M. (1929). “Die Freiheit der Meere.” *Zeitschrift für Geopolitik*, 6(10), 855-857.
- Kiefer, W. (1938). “Völker und Meere.” *Zeitschrift für Geopolitik*, 15(6), 451-455.
- Maull, O. (1951). “Lebensräume im Kampf der Kulturen.” *Zeitschrift für Geopolitik*, 22(12), 778-779.
- Niemetz, H. (1940). “Seeherrschaft und Luftherrschaft.” *Zeitschrift für Geopolitik*, 17(6), 262-264.
- Ratzel, F. (1923). *Politische Geographie*. München, Germany: R. Oldenbourg.
- Röckel, H. (1940). “Zur Geopolitik der Seeräume.” *Zeitschrift für Geopolitik*, 17(5), 227-231.
- Supan, A. (1922). *Leitlinien der allgemeinen politischen Geographie: Naturlehre des Staates*. Berlin, Germany: Walter de Gruyter & Co.
- Trautz, F. M. (1924). “Die Landbrücke von Korea.” *Zeitschrift für Geopolitik*, 1(8), 485-496.
- United States Department of Defense. (2007). *Military Power of the People’s Republic of China*. Retrieved August 30, 2007 from <http://www.fas.org/nuke/guide/china/dod-2007.pdf>
- Wittvogel, K. B. (1932). “Geopolitik, Geographischer Materialismus und Marxismus.” *Zeitschrift für Geopolitik*, 9(10).