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WORLD MARITIME UNIVERSITY
Malmö, Sweden

**INTERNATIONAL LAW PRINCIPLES OF
CONTINENTAL SHELF DELIMITATION AND
THE SINO-JAPANESE EAST CHINA SEA
DISPUTES**

By

Cai Ying

The People's Republic of China

A dissertation submitted to the World Maritime University in partial
Fulfilment of the requirements for the award of the degree of

MASTER OF SCIENCE

In

MARITIME AFFAIRS

(MARITIME ADMINISTRATION)

2006

DECLARATION

I certify that all the material in this dissertation that is not my own work has been identified, and that no material is included for which a degree has previously been conferred on me.

The contents of this dissertation reflect my own personal views, and are not necessarily endorsed by the University.

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ABSTRACT

Title of Dissertation: **International Law Principles of Continental Shelf Delimitation and the Sino-Japanese East China Sea Disputes**

Degree: MSc

The continental shelf is rich in natural resources, especially the extensive oil and gas reserves. The disputes of continental shelf delimitation between China and Japan in the East China Sea are not only over the ownership of the Senkaku Islands (or Diaoyu Islands), but also the application of international law principles. Japan has based its claim on the principle of equidistance; China on natural prolongation.

The provisions of the Continental Shelf Convention and UNCLOS governing the delimitations of the continental shelf are relatively imprecise. This dissertation will examine the relevant international law principles, such as the equidistance, and equity principles. It is intended to discuss the interrelationships between these principles and special circumstances, relevant circumstances, and natural prolongation as well. The dissertation also observes the contemporary landmark cases such as the *North Sea Continental Shelf Cases*, *Tunisia-Libya Continental Shelf case*, *Libya-Malta Continental Shelf case* and so on.

Finally, the dissertation attempts to resolve the dispute over the continental shelf delimitation between China and Japan in the East China Sea in light of the above-mentioned relevant international law principles. Sitting at the crossroads of politics, law and technical knowledge, maritime delimitation appears as a multi-faceted subject, and the principles should be optimised in relative terms. The claims of Japan and China should therefore be optimised; and it is submitted that they can be reconciled together if both states are willing to resolve disputes equitably.

KEYWORDS: Maritime Delimitation, Continental Shelf, International Law Principles, Equidistance Principles, Equity Principles.

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CHAPTER 1

INTRODUCTION

In general, boundaries are political and man-made. With respect to maritime delimitation, Higgins has suggested that the task “of determining whose claim is well founded is only the preliminary to the real task of allocating resources between claimants”.¹ Although for territorial sea delimitation, more than economic resources are in question, for continental shelf delimitation such a view may often be not far from the reality. Maritime delimitation is indubitably one of the most debated subjects in international law, especially, UNCLOS has introduced new uncertain and conflict points into the regions of the EEZ and continental shelf claim.²

After the Second World War, disputes of the continental shelf have spread the world, including the Asian of East China Sea. In June 1996, The Senkakus Islands (or Diaoyu Islands under their Chinese name) dispute in the East China Sea erupted into the news when China and Taiwan contested Japan’s declaration of a 200 nm EEZ around the islands. The Senkakus Islands are situated in the East China Sea, 410 kilometers southwest of mainland Okinawa, 170 kilometers northeast of Keelung, Taiwan, and 145 kilometers northwest of the Japanese Ishigaki Islands. The maritime boundary between China and Japan in this region is in dispute due to the presence of these islands. Although much rhetoric has been spend on this issue focusing on the ownership of the Senkaku Islands and relevant provisions in UNCLOS, it is difficult to find a satisfactory solution under the Convention regime. UNCLOS provisions governing the delimitations of continental shelf are relatively imprecise.

¹ Higgins, Rosalyn. (1994). *Problem and Process*. Oxford: Clarendon Press, p. 224.

² Antunes, Nuno Marques. (2003). *Towards the Conceptualisation o f Maritime Delimitation*. Boston: Maritime Nijhoff Publish, p. 9.

Even if the issue of island ownership were settled, there would remain a potential difficulty. Japan based its claim on the principle of “median line,” China on “natural prolongation”. The festering Sino-Japanese East China Sea disputes continue to confuse and confound policymakers and a solution is needed urgently because the *status quo* is dangerous and unstable. Dividing or allocating the islets and the maritime space between the competing claimants seems unfeasible because of their sharp disagreements over the boundaries of the dispute as well as what would constitute an appropriate equitable division.

Taking into account the relevancy of this political issue, it is striking to note that the body of research suffers from a certain imbalance. Whereas historic and political factors have been widely studied, theoretical examinations are a rarity. However, whatever the field, it should rely on theoretical studies as much as on practice-oriented analyses. Therefore, this study, whilst examining a number of conceptual issues concerning maritime law delimitation principles of the continental shelf and relevant previous cases as well, contributes to resolving Sino-Japanese East China Sea boundary disputes with a view to integrate theory and state practice.

The dissertation consists of six parts. After the introduction of chapter 1, the conceptualization of the continental shelf will be examined in chapter 2. Chapter 2 looks into the conceptualization and evolution of the continental shelf since pre-1958, emphasizes on state practice and two relevant conventions, namely the Geneva Convention 1958 and UNCLOS 1982. The objective of this part is therefore to provide the basis for a sound interpretation of the relevant convention provisions and examine the main line-defining methods of the continental shelf as well. An overview of continental shelf disputes over the Sino-Japanese at the East China Sea is in Chapter 3, analyse the historic background of disputes, including the dispute of Senkaku/Diaoyu Islands and the boundary delimitation principles. Lastly, the study states the positions of the China and Japan disputes in Chapter 3.

Chapter 4 gives the principles of continental shelf delimitation. In this chapter, the two main principles of the maritime boundary, such as equidistance principles, and equity principles will be discussed, compared, and also the relevant cases enumerated. Chapter 5 is about law principles of Sino-Japanese continental shelf delimitation. In this chapter, the author will examine the equidistance and natural prolongation delimitation principles which are claimed by China and Japan respectively, and the analysis is based on the relevant conceptions and cases mentioned in previous Chapters. Chapter 6 contains the summary and conclusions for this study.

CHAPTER 2

**CONCEPTUALIZATION OF THE CONTINENTAL SHELF
DOCTRINE**

Article.76 (1) of UNCLOS defines the continental shelf as comprising “the seabed and subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental margin, or to a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured...” Article 76 (3) then defines the continental margin as comprising “the submerged prolongation of the land mass of the coastal State, and consists of the shelf, slope and rise.” Paragraph 6 of Article.76 provides that “...on submarine ridges, the outer limit of the continental shelf shall not exceed 350 nautical miles from the baselines from which the breadth of the territorial sea is measured.” The term “continental margin” refers to the whole submerged extension of the continental land mass. It normally consists of the continental shelf, the slope and a rise, although at times it refers only to the continental shelf and slope (see Figure 1). Gray elaborates on this in the following words:

[T]here is a geological shelf which is an area that borders onto all continents and typically has a depth of water of 200 metres or less. Then at some, there is what is known as a Break, which is the location where the shelf falls away at a fairly steep slope. And so there is what the geologists refer to as the Continental Slope is made of, tends to sprawl away, rolling down and collecting at the bottom. Thus, the continentally derived sediments are deposited in an area at the bottom

that is known as the Rise. The location where the Slope changes to the Rise is known as the Foot, and barring any evidence to the contrary, it is defined as the point of maximum change of the gradient at the base of the slope. At the bottom of the ocean there is the oceanic crust or abyssal plain. The Rise slowly peters out rather than ending abruptly³.

For the most part, the seabed of the East China Sea is shallow, with water depths of less than 200 meters except in the Okinawa Trough where in areas the depth reaches nearly 2,300 meters. For this reason China adheres to the principle of the natural prolongation of land territory. In many places the continental margin, such as the continental shelf, is rich in natural resources. Most important are the extensive oil and gas reserves. The East China Sea is well known for its abundant oil and gas reserves.

2.1 Historical Background of the Continental Shelf

2.1.1 Pre-1958 State Practice

Although prior to 1958, state practice in maritime delimitation was minimal, at the Hague Codification Conference of 1930 it became accepted that the coastal State had proprietary rights over the resources of the territorial sea including its seabed and subsoil.⁴ When the International Law Commission's (hereinafter "ILC") preparatory work started, the sole agreement on delimitation of maritime areas beyond the territorial sea was the 1942 Anglo/Venezuelan treaty concerning the Gulf of Paria. As this agreement was the first of its kind, it did not advance "any general principle or method for boundary making", and became "rather limited in scope as a potential precedent for future delimitations"⁵.

³ Gray, D. "Seaward limits of the Continental Shelf and EEZ: Technical Concerns", in Pharand, D., & Leanza, U. (Eds.), *The Continental Shelf and Exclusive Economic Zone*, Martinus Nijhoff Publishers, 1993, p. 19.

⁴ Churchill, R.R. (1999). *The Law of the Sea*. British: Manchester University Press, p. 142.

⁵ Anderson, David H. "Maritime Delimitation: A View of British Practice", in *Marine Policy*, (1988), p. 231.

The Truman Proclamation made by President Truman of the USA in 1945, was the first substantial reference made to the delimitation criteria. It was asserted in this Proclamation that, “where the continental shelf of one state extends to the shores of another state, or is shared with an adjacent state, the boundary shall be determined by the United States and the state concerned in accordance with equitable principles”. The Truman Proclamation was followed by similar claims made by other states. While some asserted jurisdiction and control over the resources of the continental shelf, others claimed sovereignty over them.

2.1.2 The 1958 Continental Shelf Convention

Throughout the years following the Truman Proclamation, several other states laid claim to some kind of rights or other over the continental shelf. The idea that coastal States should enjoy certain rights over their continental shelves was generally accepted at the 1958 Geneva Conference. The Continental Shelf Convention which was adopted at the conference provided that these rights should be “sovereign rights for the purpose of exploring and exploiting” the resources of the continental shelf (CSC, Art.2)⁶. It is quite clear that this event helped enable the doctrine of the continental shelf to be firmly established in international law by 1958, and its position has not weakened since.

The Continental Shelf Convention is particularly significant because of its position regarding sovereign rights. Importantly, the Convention provides for the coastal State to have “sovereign rights” over the continental shelf rather than “sovereignty”. While the Convention does not confer full sovereignty to the coastal State, it confers upon it all the rights necessary for and connected with the exploration and exploitation of the natural resources of the continental shelf. Ownership of resources by a state was characterized as its sovereign rights. Such characterization reflected the contemporary needs of states and was a matter of

⁶ The Continental Shelf Convention, namely the 1958 Geneva Convention, art.2: “The coastal State exercises over the continental shelf sovereign rights for the purpose of exploring it and exploiting its natural resources.”

general principle in terms of a source of international law. Furthermore it was compatible with the principle of the freedom of the seas.

As aforementioned, in 1945, the United States, through the Truman Proclamation, unilaterally asserted rights and jurisdiction over the Continental Shelf. In the wake of this proclamation and in consideration of the mounting interest in offshore exploration of hydrocarbon resources, the 1958 Convention on the Continental Shelf provided as follows in Article 6:

1. Where the same continental shelf is adjacent to the territories of two or more States whose coasts are opposite each other, the boundary of the continental shelf appertaining to such States shall be determined by agreement between them. In the absence of agreement, and unless another boundary line is justified by special circumstances, the boundary is the median line, every point of which is equidistant from the nearest points of the baselines from which the breadth of the territorial sea of each State is measured.

2. Where the same continental shelf is adjacent to the territories of two adjacent States, the boundary of the continental shelf shall be determined by agreement between them. In the absence of agreement, and unless another boundary line is justified by special circumstances, the boundary shall be determined by application of the principle of equidistance from the nearest points of the baselines from which the breadth of the territorial sea of each State is measured.

The above provision is analogous to the equidistance/special circumstances rule highlighted previously in this dissertation in respect of delimitation of the territorial sea. The aforementioned rule relating to equidistance and special circumstances embodied in the Geneva Conventions was the consequence of years of debate during which time legal arguments, technical issues, and the views of states were balanced and considered. The ILC debates and the commentaries on the draft articles are

evidence that equidistance was viewed as a general rule to be considered in maritime delimitation. “Reasonable modifications” were deemed admissible wherever special circumstances were thought to exist. The rule was without doubt devised to be considered as “fairly elastic”, and applied “very flexibly”.⁷

In any event, the recourse to equidistance was highlighted as a general rule, or rather, a starting point for delimitation process, to which reasonable and sufficient changes were to be introduced where special circumstances so required.⁸ The paramount difficulty in the application of the equidistance/special circumstances rule was, and still is, that a precise definition has never been given to the term “special circumstances”. Lauterpacht raised doubts as to whether any judge or arbitrator could interpret a text so worded, and therefore held the opinion that it would be more efficient to examine the relevant cases than to undergo the complicated task of interpretation.⁹ It is also clear that only in situations where no agreement can be reached between states would such a rule be applicable.

It is essential to draw attention to the fact that the convention suffers from several significant shortcomings. One such flaw is that the Convention neglects to provide for precise parameters defining the outer limits of the continental shelf. Another shortcoming is that the applicability of the 200-metre depth and the exploitability criteria are questionable. Furthermore, because a number of definitions within the Convention are somewhat imprecise, it becomes difficult to interpret the intended meanings of “continental shelf” and “islands”.

In Article 1, the Convention defines the continental shelf as follows:

For the purpose of these articles, the term "continental shelf" is used as referring (a) to the seabed and subsoil of the submarine areas

⁷ ILC Yearbook. (1953-I). pp. 127-134.

⁸ ILC Yearbook. (1953-II). p. 216.

⁹ Lauterpacht, E. “River Boundaries: Legal Aspects of the Shatt-al-Arab Frontier”, in *International and Comparative law quarterly*, (1960), 9, pp.208-236.

adjacent to the coast but outside the area of the territorial sea, to a depth of 200 metres or, beyond that limit, to where the depth of the superjacent waters admits of the exploitation of the natural resources of the said areas; (b) to the seabed and subsoil of similar submarine areas adjacent to the coasts of islands.

There have been numerous arguments relating to the “exploitability criterion” in article 1 of the Convention. Particularly in circumstances where overlapping claims have been made by adjacent or opposite neighboring states the arguments have been multifarious. Moreover, article 6 of the Convention also presents confusion, which is inherent in the basic criteria of “median line” and “special circumstances”. Substantial legal problems can also be posed by the presence of islands in the vicinity of the continental shelf. The essential query is whether a state, which owns a little island off its mainland coast or the coast of its neighbor, may claim that the coast of its islet, rather than its mainland, is the starting point from which the seabed boundary should be delineated, as against the neighbor. Not only does the Convention fail to provide for precise definitions of “island” or “inlet”, but also it fails to provide a response to the question related to the delineation of the boundary mentioned above.

Where the participants of the disputes are not parties to the Geneva Convention, the problem of inadequate and ambiguous guidelines becomes even more complicated.¹⁰ The question is whether the provisions of the 1958 Geneva Convention have been so generally accepted by the global community as to be considered customary international law and therefore binding on all parties, whether or not they are parties to the Geneva Convention. The International Court of Justice (ICJ) in the North Seas Continental Shelf Cases decided that the equidistance principle contained in the 1958 Geneva Convention had not become “an inescapable

¹⁰ Japan and China are not the parties of the Geneva Convention.

principle of *a priori* accompaniment of basic continental shelf doctrine.”¹¹ Thus, unless that state has displayed evidence in the course of its conduct to indicate otherwise, the Court deemed that a non-signatory state may not be held bound by the Convention norms.

2.1.3 Post-1958 State Practice

Legal principles guide the approaches taken in arbitration or by courts. The courts have been reluctant to find any evidence of generally applicable norms in state practice. A reciprocal interaction between legal principles of delimitation and the body of state practice has nevertheless been generated. State practice has had an influence on the practical methods adopted by courts and tribunals. At the same time the principles of law and equitable criteria that have developed in jurisprudence have had an equally significant impact on what states deem as acceptable in negotiated settlements.

The influence of legal doctrine on state practice is evidenced in statistics compiled by the project on maritime boundaries conducted by the American Society of International Law. Of the 13 post-1958 agreements in northern and Western Europe pertaining to maritime boundaries, the six concluded before 1969 were based on equidistance, while the seven concluded since 1970 were based more or less on equitable principles. Thus it is clear that a literal interpretation of the 1958 Convention controlled the approach taken by governments in the first period, while equally the principle of the *North Sea Continental Shelf* cases was the dominating force on negotiations after 1969.¹²

¹¹ Probably the United Nations Charter has been the only multilateral treaty which is accepted and believed by most of the nations in the world as customary international law. As for the non-signatory nations, the Charter is also considered to be binding as far as, at least, international peace and security are concerned.

¹² Pharand, D., and Leanza, U. (1993). *The Continental Shelf and the Exclusive Economic Zone*. Boston: Martinus Nijhoff Publishers, p. 65.

On the other hand, the influence of state practice on jurisprudence is often implicit and undisclosed in regard to the reasons for particular judgments and awards. However, state practice should have been influential in suggesting analogies and in supplying the courts with a variety of methods from which to choose. For example, the source of inspiration for the “half effect” was state practice, which was applied to the Scilly Islands in 1977.¹³

2.1.4 1982 Convention

A major innovation in the 1982 UNCLOS Convention was the creation of the EEZ. This combined rights to the continental shelf with rights over the water column beyond the territorial sea. Inasmuch as the EEZ and the continental shelf are both primarily resource-related areas, the idea of considering them jointly in the 1982 Convention is understandable. On the other hand, it is also important to keep these two bases separate. The delimitation of the continental shelf had already been examined in the 1958 Convention, but discussion surrounding the delimitation of the EEZ was a novel initiative. The EEZ has a breadth of 200 nautical miles, which may be greater or less than the breadth of the geomorphological continental shelf under the classical doctrine. However, under the Law of the Sea Convention the minimum breadth of the continental shelf is 200 miles, *i.e.*, not less than that of the EEZ. There can be a continental shelf without an EEZ but there cannot be an EEZ without a continental shelf.¹⁴

Article 76 of the Convention defines a coastal state’s continental shelf as “the seabed and subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental margin”. The definition distinguishes between margins which are less than or greater than the width of 200 nautical miles. States, which possess margins

¹³ The court of United Kingdom, in the Decision of 30 June 1977, stated an equitable delimitation in this area would be one giving “half-effect” to the Scilly Isles. See The United Kingdom of Great Britain and Northern Ireland and the French republic *Delimitation of Continental Shelf* Arbitration Agreement of 10 July 1975; Decision of 30 June 1977, at para. 251.

¹⁴ ICJ Rep. 13, at p. 33.

narrower than this distance, may claim the distance out to 200 nautical miles, matching the claim to the EEZ. States with geomorphological margins wider than 200 nautical miles can delineate the outer edge of the margin in one of two ways. Following the first method, the state may draw its continental margin outer limits between those points seaward of the foot of the continental slope where the depth of sedimentary rocks is at least 1 per cent of the shortest distance between such points and the foot of the continental slope. This proposal is known as the Irish Formula. The second method permits the state to draw boundaries not more than 60 nautical miles seaward of the foot of the continental slope¹⁵. Irrespective of the physical extent of the margin, state jurisdiction cannot (with some exceptions) extend beyond 350 nautical miles from the baseline or 100 nautical miles beyond the 2500-meter isobath.¹⁶ Professor Mukherjee has emphasized in his article that

If a state has a wide margin that extends beyond 200 nautical miles, it must follow a two-step procedure in order to delineate its outer limit. The first step requires the location of the “foot of the continental slope”, which is the line along the base of the slope where the gradient of the sea floor undergoes its maximum change...The second step involves the actual definition of the outer limit by a series of straight lines that join fixed point no more than 60 nautical miles apart. The locations of these fixed points are determined with respect to their distance from the foot of the continental slope. ...the outer limit cannot extend beyond a maximum of 350 nautical miles from the state’s territorial sea baselines, or 100 nautical miles beyond the 2500- metre isobath...¹⁷

¹⁵ Prescott J.R.V., (1985). *The Maritime Political Boundaries of the World*. London: Methuen & Co. Ltd publisher, p. 76.

¹⁶ See UNCLOS, Art. 77.

¹⁷ Macnab, Ron & Mukherjee, P. K. “The 1982 UN Convention on the Law of the Sea and the Outer Limit of the Continental Shelf: Some Practical Considerations for Wide-Margin States” in *The Continental Shelf and the Exclusive Economic Zone*, Published by Maritime Nijhoff Publishers, (1993), pp. 26-28.

Despite detailed articulation in Article 76 of UNCLOS, the formula leaves room for considerable uncertainty. Some scholars have been severely critical of the use of sediment thickness as a parameter for defining boundaries, as it is impossible to calculate the thickness of sediments sufficiently and precisely for the determination of boundaries. UNCLOS definition of the means of the continental shelf is unsatisfactory. Not only are certain terms imprecise but it is difficult to obtain and confirm the relevant data upon which the thickness of sediment formula can be applied.¹⁸

Furthermore, as the 1958 Geneva Convention is arguably inadequate and ambiguous, certain negotiations evolved during the drafting of some provisions in UNCLOS. These discussions spawned the existence of two opposing groups of interest: the “Equidistance Group” and “Equitable Principle Group”. The “Equidistance Group” suggested that delimitation should employ “as a general principle, the median or equidistance-line, taking into account any special circumstances where this is justified”¹⁹. The “Equitable Principle Group” on the other hand made asserted that delimitation should be carried out “in accordance with equitable principles, taking into account all relevant circumstances and employing any methods, where appropriate, to lead to an equitable solution.”²⁰

UNCLOS was adopted in 1982. Articles 15, 74 (1) and 83 (1) provide for the delimitation of the territorial sea, the EEZ and continental shelf, respectively. The provisions dealing with the delimitation of the continental shelf and the EEZ are identical. Article 83 (1) which concerns the continental shelf provides as follows:

The delimitation of the continental shelf (or EEZ) between States with opposite or adjacent coasts shall be effected by agreement on the basis of international law, as referred to in Article 38 of the Statute of

¹⁸ Prescott J.R.V., (1985). *The Maritime Political Boundaries of the World*. London: Methuen & Co. Ltd publisher, p. 76, p. 80.

¹⁹ Antunes, Nuno Marques. (2003). *Towards the Conceptualisation of Maritime Delimitation*. Boston: Maritime Nijhoff Publish, p. 85

²⁰ *Ibid.*

the international Court of Justice, in order to achieve an equitable solution.

In broad terms, Articles 83 (1) and 74 (1) together comprise a body of three main structural parts, which prescribe how delimitation is to be effected. It must be done firstly “by agreement”; secondly, it must be “on the basis of international law as referred to in Article 38 of the Statute of the International Court of Justice”, and thirdly; it must achieve an equitable solution. Unfortunately, Article 38 of the ICJ Statute does not provide a detailed prescription. Rather it depends on the Court to reach decisions by applying international conventions expressly recognized by the contesting states; by considering international custom; by the general principles of law recognized by civilized nations.²¹

It is important to note that unlike Article 15, which deals with the delimitation of the territorial sea, the aforementioned provisions do not refer to any particular method of delimitation such as equidistance. Clearly the emphasis is on achieving an “equitable result”. This has enabled boundary makers to consider any number of possible circumstances that could conceivably have an effect on the position of the boundary, and to consider the different technical methods that could possibly be employed. This principle is called the equitable principles/relevant circumstances rule.

The law of the sea does not specify the method by which maritime boundaries should be delimited. In effect, parties are free to agree upon any maritime boundary delimitation method they desire as long as third party rights are not infringed upon.

²¹ Statute of the ICJ Article 38: the Court, whose function is to decide in accordance with international law such disputes as are submitted to it, shall apply:

- a. international conventions, whether general or particular, establishing rules expressly recognized by the contesting states;
- b. international custom, as evidence of a general practice accepted as law;
- c. the general principles of law recognized by civilized nations;
- d. subject to the provisions of Article 59, judicial decisions and the teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law.

Thus, there is no limit to the methods of delimitation that may be employed, as long as the parties agree or the court or any other legal tribunal deems it to be equitable.

As far as normativity is concerned, using the formula in Article 83 (1) as a tool in boundary definition has been criticised by scholars as being vague and indeterminate which could result in legal uncertainty and be rendered meaningless. For example, Bernard Oxman has commented that the formula does not “purport to lay down a normative rule to be applied in the absence of an agreement”. He has further remarked that it “says nothing of significance while, worse still, trying to give a contrary impression by introducing unnecessary language and avoiding recognised terminology associated with jurisprudence and scholarship”.²²

In juridical terms, the failure to provide true normative standards is hardly understandable and a significant drawback is exemplified by references to equidistance as a “principle”. In the view of another commentator, the proposal struck in 1958 kept the balance between objectivity (equidistance) and subjectivity (special circumstances). By contrast, all standards including the principle of equity in UNCLOS are “subjective” (equitable principles, relevant circumstances). Moreover, the new provision confers unbridled discretion by explicitly referring to the notion of “any methods”. The confusion conveyed by these terms is not counterbalanced by any measure of objectivity in the Convention.²³

Article 83 (1) of UNCLOS has not provided for normativity in continental shelf boundary delimitation. This prompts us to ask how the equitable character of a maritime boundary is to be ascertained. A provision laid down in UNCLOS is that an inequitable solution must be avoided. The means whereby these equitable solutions are to be attained are specified indirectly and through the expression “on the basis of

²² Oxman, Bernard H. (1982) “The Third United Nations Convention on the law of the Sea: The Tenth Session (1981)”, in *American Journal of International Law*, Volume 76, Number 1, pp.1-23

²³ Antunes, Nuno Marques. (2003). *Towards the Conceptualisation of Maritime Delimitation*. Boston: Maritime Nijhoff Publish, p. 86.

international law”. The explicit reference to Article 38 of the Statute of the ICJ reinforces the idea that the parties who are obligated to apply international law must resort to the courts.²⁴

Courts are thus bound to seek in international law the normative basis by which delimitation exercises are to be carried out. In the search for equitable solutions the circumstances and methods to be applied in maritime delimitation are strictly those that are permitted, and more importantly, required by international law. The suggestion that Article 83 (1) provides judges with the liberty to choose any delimitation formula, method or principle “that is likely to lead to an equitable solution” has already been advanced.²⁵

The entry into force of UNCLOS also unearths the idea regarding the application of successive treaties. As the 1958 Convention does not cease to have effect automatically, if the two regimes are compatible, there seems to be no reason for not applying the Geneva Convention. For example, the delimitation is to be effected in accordance with Article 83 (1) if both states are parties to UNCLOS. However, as this provision refers solely to the result to be attained (an equitable solution) and does not obligate that a particular method be used, it should be asked whether Article 6 (the equidistance-special circumstances rule) may be applied between parties that are signatories to both UNCLOS and the 1958 Convention.

It has been established that article 83 (1) of UNCLOS provides no answer as to which means of delimitation should be applied to achieve an equitable result and Article 6 refers to the equidistance-special circumstances rule. This gives rise to caution. Equidistance is the method of determination. The notion of special circumstances was included as something like an escape clause aimed at avoiding

²⁴ *Ibid.* at pp. 92-94.

²⁵ Manner, Eero J. “Settlement of Sea-Boundary Delimitation Disputes According to the Provisions of the 1982 Law of the Sea Convention”, in Jerzy Makarczyk (eds.) *Essays in honour of Judge Manfred Lachs*, Institute of State and Law of the Polish Academy of Sciences, The Hague-Boston-Lancaster: Martinus Nijhoff Publisher, (1984), pp. 625-643.

inequity so that the obligation of result contained in Article 83 (1) could be met. Therefore, the two principles of delimitation in UNCLOS and the Geneva Convention respectively may be compatible in certain conditions.

Although the delimitation provisions of UNCLOS for the territorial sea, and the EEZ and continental shelf, do not have the same wording, they do share a common element: the delimitation must result in a non-inequitable boundary.

It is also of crucial importance to consider that the history of maritime delimitation has always revolved around the tension between geographical and geological considerations on the one hand and legal principles on the other. Within this arena equity has assumed a pivotal role. Notably, technical and juridical issues have not often been clearly differentiated in the past. In the absence of an agreement to apply either the “equidistance-special circumstances” rule or the “equitable principle” rule often difficulties were centred on the operational criteria.

2.2 Main Line-defining methods of the continental shelf

Though this dissertation does not focus on the technical regime of delimitation, the main line-defining methods of the continental shelf are mentioned. The technical definition of the line must always comply with the terms set out in the determination phase. Technical methods and legal principles must be distinguished. Principles belong to the realm of political and legal determination of the boundary. As methods are part of the technical definition, they should follow a technical doctrine. The main line-defining methods of the continental shelf are the equidistance and equidistance-related methods.

2.2.1 Method of equidistance

The concept of equidistance and its utilization in maritime delimitation is one, which is advanced by the ILC and sheds light on the distinct terms used in the two paragraphs of Article 6 of the Geneva Convention concerning median line and the

principle of equidistance²⁶. It must first be mentioned that the Committee of Experts of the ILC clearly noted that it had made an effort to discover a formula applicable to the delimitation of the territorial sea, which could at the same time serve in continental shelf delimitation.

The second point to highlight concerns the exceptions to the proposed methods. The Committee noted that, in the case of opposite coasts, there may be adequate reasons that would justify the departing from the median line. As to adjacent coasts, it stated that in certain instances the proposed method would not necessarily lead to equitable solutions. Notably, no distinction was made between delimitation of adjacent and opposite coasts in relation to the existence of justification for departing from the method of equidistance.²⁷

The third idea concerns the dissimilarity between “median line” and “principle of equidistance”. Neither the report, nor the ILC debates clarify the distinction. An explanation may be apparent in the publication by Kennedy. Referring to the case of opposite coasts, he defines “median line” as “a line every point of which is equidistant from the nearest points on the baselines from which the breadths of the territorial sea of the two states are measured”²⁸. Shalowitz also notes that equidistance “is embodied in the median-line concept”. He adds that theoretically “a boundary line through the territorial sea between two adjacent states, while an equidistant line, is not a true median line”²⁹. In other words, whereas a median line is an equidistance-line, not all equidistance-lines are median lines.

²⁶ The Geneva Convention 1958. Art. 6.

²⁷ ILC Yearbook. (1953-111) p. 79.

²⁸ Kennedy, R. H. (1958). *Brief Remarks on Median Lines and Lines of Equidistance and the Methods Used in Their Construction*, Paper distributed by the United Kingdom Delegation to the I Conference on the Law of the Sea (2 APRIL 1958).

²⁹ Shalowitz, A..L. (1962). *Shore and Sea Boundaries* (with Special Reference to the Interpretation and Use of Coast and Geodetic Survey Data), vol. 2, Washington D.C., U.S. Government Printing Office, pp. 230-231.

Whether the term “principle of equidistance” was meant to refer to a “median line”, or to another understanding of equidistance, or both, it is unclear. The distinction between median line and equidistance is prescribed. These two terms are interchangeably used to convey the following meaning: they “result from the application of the same geometric method”. Therefore, they are taken as synonymous here.³⁰

2.2.2 Simplified and modified equidistance

The line where every point of which is equidistant from the nearest points on the baselines of two states is usually known as strict equidistance. Copied forms of the equidistance method have often been applied in maritime delimitation. There are numerous possible variants. The types of variant-methods can be classified as simplified equidistance and modified equidistance. Legault and Hankey consider modified equidistance as lines “composed of segments connecting points whose position is not strictly equidistance from the territorial sea baselines because certain features have not been used or have been given reduced effect”. They add that these lines usually involve “a greater departure from strict equidistance than does a simplified equidistance-line³¹.”

Technically speaking, the distinction between modified equidistance and simplified equidistance is more a matter of degree rather than one of substance. Since strict equidistance is the starting point in both cases, a simplified equidistance aims to consider “a simple line” and the goal is ultimately to simplify the administration of the boundary, while maintaining equidistance as the key standard. The new line of

³⁰ Antunes, Nuno Marques. (2003). *Towards the Conceptualisation of Maritime Delimitation*. Boston: Maritime Nijhoff Publish, pp. 152-154.

³¹ Legault, L. & Hankey, B. (1993). “Method, oppositeness and adjacency, and proportionality in maritime boundary delimitation”. in Jonathan, I. C., & Lewis, M. A. (Eds.) *International Maritime Boundaries* (pp. 261-275). Dordrecht-Boston-London: Martinus Nijhoff Publishers.

simplified equidistance deviates “so little from strict equidistance that the resulting area gained or lost by the states is essentially immeasurable.”³²

The proximity between the modified equidistance and equidistance depends only on how equidistance and the other rationale are relatively weighed. This however, is not a technical issue. It is a political and legal decision. This is why the modified equidistance line departs from strict equidistance more than from a simplified equidistance. Finally, modified equidistance and simplified equidistance preserve the impartiality inherent in equidistance. Whether a line is a simplified or modified equidistance is far less important than the fact that both are variants of equidistance.

2.2.3 Adjustment of baselines and partial-effect adjustments

The method of “adjustment of baselines” effectively outlines the application of the equidistance method. This amounts to an adjustment of the normal baseline through a particular rationale. Similar to the adjustment of baselines is the partial-effect technique. Baseline and partial-effect adjustments were both conceived on the political-legal level with a view to attain a certain objective. Depending on the underlying intention and the extent of the adjustment of the normal baseline, the result may either be a simplified equidistance, or a modified equidistance.³³

When partial-effect is combined with the equidistance method, it is seemingly a variant of equidistance. Its rationale lies on the reduced impact of certain coastal features in the geographical context, as reflected in the coastline configuration. The partial-effect technique has been approached primarily where the presence of islands and low-tide elevations have given rise to difficulties in the determination of the boundary. The basic ways in which this technique works in combination with equidistance are illustrated in Figures 2 to 3. It should be understood that there is no

³² IHO, *A Manual on Technical Aspects of the United Nations Convention on the Law of the Sea*, 1982-TALOS Manual, Third Edition, Monaco, International Hydrographic Bureau, 1993, p. 109.

³³ Antunes, Nuno Marques. (2003). *Towards the Conceptualisation of Maritime Delimitation*. Boston: Maritime Nijhoff Publish, p. 159.

such thing as a true partial-effect line.³⁴ Thus, partial-effect lines do not necessarily divide the area between full-effect and no-effect lines in parts equivalent to the effect adopted.

Resorting to equidistance, or to any other method, does not eliminate all difficulties. Different grounds in political-legal terms must be considered. The method of equidistance, whose application raises the technical issues briefly addressed above, is distinct from the legal notion of equidistance. It is important to note that the latter concerns the legal-normative aspects relating to the entitlement of states to maritime areas, as well as limits prescribed by international law.

³⁴ Beazley, P.B. (1979). "Half-Effect Applied to Equidistance Lines", in *International Hydrographic Review*, 56 (1), PP.153-160.

CHAPTER 3

CONTINENTAL SHELF DISPUTES OVER THE SINO-JAPANESE AT THE EAST CHINA SEA

Tensions between Japan and China over their maritime boundary, including ownership of the disputed Senkaku/Diaoyu Islands in the East China Sea have escalated dramatically. The East China Sea Basin is vast³⁵. It is shallow with water depths of less than 200 meters except in the Okinawa Trough along the Japanese coast. The seabed slopes gently from the Chinese coast until it drops abruptly into the Okinawa Trough whose depth reaches nearly 2,300 meters at its deepest.³⁶

The Senkaku/Diaoyu Islands sovereignty issue complicates the maritime dispute over where to draw the boundary line between Japanese and Chinese waters. The islands lie between latitude 25°58' North, longitude 123°41' East and latitude 25°44' North, longitude 123°29 East.³⁷ The Senkaku/Diaoyu Islands consist of five islands and three rocks standing above the high-water line in three shoal areas.³⁸ They are

³⁵ Hsiung, J. C. (2005, October 9-11). Sea power, Law of the Sea, and China-Japan East China Sea resource war. *Forum on China and the Sea*: Institute of Sustainable Development Macao University of Science & Technology. Retrieved July 12, 2006 from the World Wide Web:

http://www.nyu.edu/gsas/dept/politics/faculty/hsiung/sea_power.pdf

³⁶ Ji, G. (1995). Maritime jurisdiction in the three China seas: options for equitable settlement. *Working Papers, University of California Institute of Global Conflict and Cooperation*. Retrieved July 5, 2006 from the World Wide Web: <http://www.ciaonet.org/wps/guj01/>

³⁷ Donaldson J & Williams A, "Understanding Maritime Jurisdictional Disputes: The East China Sea and Beyond." *Journal of international affairs*, Fall 2005; 59 (1), p. 135.

³⁸ Prescott J.R.V. (2005), *The Maritime Political Boundaries of the World*, London: Methuen & Co. Ltd publisher. p. 437.

completely uninhabited and of little intrinsic value. However, the possible presence of oil deposits nearby has made the contested sovereignty an increasing problem.³⁹

3.1 Historic background of the disputes

Prior to 1968 all disputes related to the oceanic resources between the adjacent coastal nations in the East China Sea centred on fishing rights. In 1968, the issues were changed from fishing rights to oil, and reasons of the above transformations are listed as follows: First, a 1968 study by the United Nations Economic Commission for Asia and the Far East suggested that the seabed of the East China Sea could be one of the richest oil-deposit areas in the region.⁴⁰ Second, along with this report, new technology for the exploitation of ocean resources, especially oil, was becoming available. Last but not the least, the demand for oil was growing rapidly, especially in China and Japan.

As a consequence of these factors, each adjacent coastal nation competitively proclaimed its national ownership of the areas as wide as might be reasonably defensible, insisting that only its claims were tenable under international law. Among them, the continental shelf disputes between Japan and China are the case in the East China Sea where disputed sovereignty of the Senkaku/Diaoyu Islands and different application of the international principles are inextricably linked to the maritime boundary situation.

3.1.1 Historic background of the Dispute of Senkaku/Diaoyu Islands

Though this study will not focus on the issue of the Senkaku/Diaoyu Islands, the dispute influences the delimitation boundary quite a lot. Therefore, it is necessary to mention the historic dispute of Senkaku/Diaoyu Islands. When dealing with historical disputes one must be careful to read the facts through the correct historical

³⁹ Donaldson J & Williams A, "Understanding Maritime Jurisdictional Disputes: The East China Sea and Beyond." *Journal of international affairs*, Fall 2005; 59 (1), p. 135.

⁴⁰ The initial discovery was the result of a geophysical survey conducted in late 1968 and 1969 by the Committee for Coordination of Joint Prospecting for Mineral Resources in Asian Offshore Areas. The Committee's report stated that "a high probability that the continental shelf between Taiwan and Japan may be one of the most prolific oil reservoirs on the world."

lens. History is often written by scholars with subjective attitudes, and the descriptions of the historic background of the Senkaku/Diaoyu Islands are quite different also. However, as the world entering the new millennium, the free flow of information makes it possible to access and compare different historical facts, and discover some historical facts as well.

The first Sino-Japanese War broke out in August 1894. The Chinese were defeated and forced to sign the Treaty of Shimonoseki 1895. When read in context of Article 2 (b) of the Treaty of Shimonoseki, and in light of its object and purpose, it appears to include the islands of Senkaku/Diaoyu. The Chinese have never disputed the status of the islands between April 1895 and 1952, as it is conceded by the Chinese that the islands were incorporated into Japanese territory by the Treaty of Shimonoseki. However, the Chinese argue that the disputed islands should be returned under the subsequent War Time Declarations and the ROC-Japanese Peace Treaty 1952.⁴¹ It denounces the current Japanese occupation of the disputed islands as illegal and invalid. On the other hand, Japan reaffirmed its earlier argument that title to the disputed islands was established by the Cabinet Decision of 1895 and was therefore not included in the Treaty of Shimomoseki, and the Japanese has remained dormant since then.

3.1.2 Historic background of the Dispute of Boundary Delimitation Principles

Which claim of the ownership of the Senkaku/Diaoyu islands is stronger than the other has been problematic up till now? Even if the issue of island ownership were settled, there would remain a potential difficulty that China and Japan apply the different law principles of maritime boundary delimitation. The boundary

⁴¹ Declaration of the Cairo Conference (1 December 1943) stated that: "...all the territories Japan has stolen from the Chinese, such as Manchuria, Formosa, and the Pescadores, shall be restored to the Republic of China (ROC), Japan will also be expelled from all other territories which she has taken by violence and greed."

Art. 4 of the Treaty of Peace between the ROC and Japan 1952 stated that "all treaties, conventions, and agreements concluded before 9 December 1941 between Japan and China have become null and void as a consequence of the war."

delimitation of the continental shelf between China and Japan is complicated. Japan declared its EEZ in 1996, and China in 1998. Japan has advocated the application of the median line as a delimitation line for the EEZ and the continental shelf in the absence of an agreed line with the opposite country. Japan considers all waters east of this unilaterally drawn “median line to be Japanese territory.”⁴² The line meanders to the west to enclose the disputed the Senkaku/Diaoyu islands. However, China’s position is different and has advocated the application of the natural prolongation principle for the delimitation of the continental shelf with Japan. The Chinese insist on drawing the line, which would run in the middle course between the western coastline of the Ryukyus (Okinawa) and the eastern coastline of Taiwan. A line drawn would have the Senkaku/Diaoyu islands.

Much of recent tension in the East China Sea dispute can be understood as a direct result of the Chinese decision to begin test-drilling for oil and gas in the Chunxiao field, which is located 5 kilometers to the west of Japanese median line. Japan argues that this will lead to the Chinese eventually siphoning off what little natural gas resources exist under Japanese territory. Then, the Japanese government has awarded rights to the Japanese company Teikoku Oil to begin test-drilling in an area some 450 kilometres (243 nautical miles) west of Japanese southern Okinawa Island, just to the east of the Japanese equidistance line, or at least 43 nautical miles beyond Japan’s EEZ, and into China’s maritime territory.⁴³ After that, the Chinese Foreign Ministry lodged a strong protest to the Japanese government for infringing upon China’s sovereign rights. However, the Chinese warnings were vague, as they merely repeated that China did not recognize the Japanese “median line”, did not specify where an equitable line was or should be. Nor did they define what would amount to an infringement of Chinese sovereign rights, in terms of longitudinal and latitudinal coordinates.

⁴² See Art.1 (2) and Art.2 (2) of the Law on the EEZ and the Continental Shelf (Law No. 74 of 1996).

⁴³ The width between the Chinese and Japanese coastlines is no more than 400 nautical miles at the widest points. An equitable median line should be 200 nautical miles equidistant to both coastlines. Thus, the Chinese point is that 243 nautical miles from Okinawa would be 43 nautical miles beyond Japan’s EEZ.

3.2 China and Japan's Positions of the international law delimitation principles

The line of equidistance that trends roughly north-south between China and Japan must be considered in three sections (Figure 4). First, there is the northern section where there is no territorial dispute between the two countries. Second, there is the central section in the vicinity of the Senkaku/Diaoyu Islands, which are presently occupied by Japan. Both China and Japan claim sovereignty over these islands. Third, there is the section off the east Coast of Taiwan where there is no dispute over the ownership of islands.⁴⁴ The dispute of the Senkaku/Diaoyu Islands means it is necessary to draw two lines of equidistance. The two lines of equidistance assume first that China owns all the islands and second that Japan owns all the islands. The area where two lines of the equidistance in the central section enclose straddles the junction between the continental shelf, and the continental slope that descends comparatively to divide the geological continental shelf from the geological continental slope.

3.2.1 Japan's positions of the international law delimitation principles

Japan has advocated the application of the median line as a delimitation line for the EEZ and the continental shelf in the absence of an agreed line with the opposite country. This is reflected in its 1996 EEZ Law. There are three reasons: First, it would be inappropriate if the outer limit of the EEZ remained undecided when delimitation talks did not reach any agreement for a long time. Second, the traditional position of Japan that delimitation of the EEZ should be made in accordance with the median line principle should be maintained. Third, it is appropriate to maintain consistency with the Law on the Provisional Measures related to the Fishery Zone of 1977, which adopted the median line principle.

⁴⁴ Prescott J.R.V. (2005). *The Maritime Political Boundaries of the World*. London: Methuen & Co. Ltd publisher. p. 436.

3.2.2 China's positions of the international law delimitation principles

China declared the establishment of its EEZ in 1996 when it ratified the UNLOS. Two years later China promulgated the EEZ law. This law is designed to guarantee to China the exercise of its sovereign rights and jurisdiction over its EEZ and continental shelf. It is interesting to note that although the provision to define the EEZ is just a copy of the relevant provision of UNCLOS, the provision regarding the continental shelf has something new with Chinese characteristics, that is, the emphasis on the natural prolongation of China's rights to the continental shelf, which bears strong implications for the delimitation of the continental shelf in the East China Sea. China's has advocated the application of the natural prolongation principle for the delimitation of the continental shelf with Japan.

CHAPTER 4

PRINCIPLES OF ADJUDICATION OF CONTINENTAL SHELF DELIMITATION

Maritime boundary delimitation has multiple facets. As it is interdisciplinary in nature, it is crucial to appreciate that each stage within the delimitation process is distinct. Experts have not given much attention to the conceptual aspects of maritime boundary delimitation. Apparently, this stems from the fact that emphasis has been put on the uniqueness of each case. The court affirmed in the *Tunisia/Libya* case “each continental shelf case in dispute should be considered and judged on its own merits, having regard to its peculiar circumstances”.⁴⁵

It is unquestionable that the factual circumstances to each situation must be taken into account when applying the rules of law. Nevertheless, conceptualisation is exactly the operation through which the *ratio decidendi* of legal decisions, general and abstract principles and rules may be identified⁴⁶. Otherwise it could not have a normative existence. Extrapolation without conceptualisation therefore has virtually no judicial support. It is difficult to rely on a previous decision to assess another case if the uniqueness of each case is the paramount determination. Therefore, it is unreasonable to overemphasize the uniqueness of each case, or under- conceptualizes the maritime delimitation. Some ambiguity and misunderstanding may arise in certain circumstances as a result. Therefore maritime delimitation should balance the application of rules of law and the conceptualization of delimitation.

⁴⁵ ICJ Rep. (1982). 92, para.132.

⁴⁶ Antunes, Nuno Marques. (2003). *Towards the Conceptualisation of Maritime Delimitation*. Boston: Maritime Nijhoff Publish, p. 119.

4.1 Political-legal determination and technical definition

First of all, boundary delimitation should be characterized conceptually. The notion of delimitation includes two different phases. One is the determination of the boundary and the other is its definition. The determination of the boundary consists of the choice of the location of the boundary-line. Referring to land-boundary delimitation, it has been said that this phase is “a compromise between geographical suitability and political necessity”, amounting to “science and art”. As to the definition of the boundary-line, it is regarded as a purely technical process that should and can be carried out with scientific precision.⁴⁷ Hence, in terms of methodology, it is significant to clarify the scope of these two phases in maritime delimitation regime. Moreover, it is important to make clear the relevance of each phase, and their interaction with political, legal and technical considerations as well. The determination of a boundary’s course is hybrid in nature, in which politics, law and technical issues are combined. As for the decision-making process however, one should primarily focus on the politico-legal swing. When resulting from adjudication, it becomes mainly a juridical issue. Technical issues in these instances have been supporting rules. The definition of the boundary-line, by contrast is a purely technical matter, which should be governed entirely by technical principles.⁴⁸

The distinction between a politico-legal phase, and a technical phase, may lead to the idea that the function of technical experts in maritime delimitation is restricted to the latter phase. That is not the case. The determination of the boundary requires some degree of technical support, especially in assessing the geographical setting and in appraising the impact of the weight given to certain considerations.⁴⁹ Negotiators and judges should combine the political, legal and technical approaches to realize their goals. The first goal has been to become aware of the geographical framework,

⁴⁷ *Ibid.*, p. 120.

⁴⁸ *Ibid.*, p. 120.

⁴⁹ For a brief analysis on the role of the technical expert in the negotiation of maritime boundaries. Chris Carleton and Clive Schofield, *developments in the Technical Determination of Maritime Space: Delimitation, Dispute Resolution, Geographical Informations Systems and the Role of the Technical Expert*, 2002, pp.50-63.

and to identify which “main variables” influence the delimitation. After the initial assessments are made, the delimitation process enters into an intermediate stage in which decision-makers require a higher level of technical support. Then the following stages come into play such as adjustments of the line depending on the complexity of the delimitation scenario.

An agreement on a number of technical points may become necessary. These include the calculation of maritime areas, coastal lengths and distance. This supports the view that the determination of the boundary is considered as both a science and an art, where geographical suitability must be reconciled with politico-legal necessity. When the path of the boundary is finally determined, it is necessary to define the line with scientific precision. At this stage the process enters the phase of definition of the boundary where legal and political arguments are no longer relevant. Such a tentative approach may seem improper in dealing with a fundamental politico-legal issue. Nevertheless this appears to be how the determination of a boundary- line is actually attained.

Thus it is apparent that maritime boundary delimitation is carried out in two phases, namely, the politico-legal phase and the technical phase. Conceptually, the key conclusion is that the definition of the line must abide by the determination of the politico-legal decision-maker. The technical transformation must defer to the politico-legal decision, which might have been attained by negotiation, by adjudication, or by non-judicial third-party settlement. In practice, it may be difficult to differentiate the two phases of delimitation. Because technical issues are involved in both the determination phase and definition phase in most instances they can take place simultaneously. The reality is that the two phases appear so deeply combined that it is impossible to distinguish between them.⁵⁰

⁵⁰ Antunes, Nuno Marques. (2003). *Towards the Conceptualisation of Maritime Delimitation*. Boston: Maritime Nijhoff Publish, p. 127.

In the *North Sea Continental Shelf* cases, decided in 1969, the ICJ was asked to declare which principles and rules of law would be applicable to the maritime delimitation process between the parties.⁵¹ Since the Court did not have the powers to choose the boundary-line, the technical considerations involved were few. The situation was quite different in the *Anglo/French* arbitration, where the arbiters were requested to decide upon the actual course of the boundary. Technical aspects played a prominent position in the decision making process. In the *Dubai/Sharjah* arbitration, the problems relating to technical issues were approached and considered correctly. They were dealt with in such a way that the determination of the boundary (in accordance with the juridical reasoning), and the technical definition of the line, were clearly separated – the latter being consonant with the former.

Broadly speaking, boundary determination may be seen as a weighing-up process that involves political, legal and technical considerations. In this dissertation, the main focus is on the legal delimitation factors and, in particular, the international maritime delimitation legal principles.

4.2 Overview of the international maritime delimitation legal principles

Maritime delimitation is a complex, long and sensitive political and diplomatic process. The process always includes an international facet, as it concerns the dividing of a maritime space with a line, which crosses a minimum of two jurisdictions where entitlements may overlap. When assessing the delimitation of the continental shelf it must be considered that the resources within the scope of the area are plentiful. Moreover, one must be incognisant of the reality that the provisions within the conventions are inadequate and ambiguous. As previously outlined, the conventions on the law of the sea provide a legal framework for maritime boundary delimitation. However, the relevant provisions governing delimitation are far more definitive.

⁵¹ ICJ Rep. (1969) 14, para. 2.

Furthermore, differing interpretations of the principles and rules of delimitation in any single circumstance may cause a dispute and give rise to a deadlock in delimitation negotiations. Particularly, the disputes within the sphere of continental shelf delimitation are complex and difficult to resolve because of the prescriptions contained in article 76 of UNCLOS relating to the determination of the outer limits. The Sino-Japanese disputes in the East China Sea exemplify this particular problem.

4.2.1 The status of international law principles

Article 38 (1) of the Statute of the ICJ becomes crucial, for it remains the most authoritative reference-point for identifying normativity in international law.⁵² The order in which the sources of law are enumerated in that article should be taken into consideration in litigation. The first item in the list is treaty law; the second is customary law; and the third is general principles of law. In order of importance, article 38 (1) then refers to judicial decisions and the writings of publicists as subsidiary means for determining the rules of law. It must be remembered that judges and jurists cannot create law: only states can do that, through the adoption of treaties and acceptance of customary international rules and general principles of law.⁵³

For all practical purposes the recourse to general principles of law is subject to the non-existence of the conventional and customary rules. Whereas Article 6 of the Geneva Convention prescribes the use of the equidistance-special circumstance rule, Article 83 (1) of UNCLOS only refers to achieving an equitable solution. The jurisprudence indicates that under customary law the delimitation of the continental shelf is to be effected by recourse to equitable principles. As shown in the survey, however, this proposition does not appear to be founded on any general practice of states. An attempt made by the Nuno Marques Ntues to survey state practice on continental shelf and EEZ delimitation revealed that no such general practice exists.

⁵²Danilenko, G.M. (1993). *Law-making in the International Community*, Dordrecht-Boston-London: Martinus Nijhoff Publishers, pp. 30-42.

⁵³Churchill R.R. (1999). *The Law of the Sea*(3rd edition). Manchester University Press, p. 13.

Some of the findings are striking. Out of approximately 300 cases where both unilateral and bilateral state practice was considered, roughly one in five failed to mention any operative-standard. References to equitable principles are found in only 10% of the occurrences and one third of these references pre-date 1958. Notably, in the post-1969 practice, clearly less than one in ten acts refers to equitable principles. If restricted to the post-1982 practice, this ratio drops dramatically to less than one in twenty-five instances.⁵⁴

The survey has proved that states that supported equidistance the application of equitable principles in continental shelf delimitation did not acquiesce to those that propagated equity. The contention that the equitable principles emerged from practice is pure fiction.⁵⁵ It can be concluded that no customary rule exists in light of the relevant state practice. This creates a problem where in reality many questions concerning normativity in maritime delimitation need to be answered. The fact is that the conventions and customary rules do not provide answers to these questions. Consequently, the answers must stem from principles of international law.

4.2.2 Distinction of rules and principles

In broad terms, it may be said that “principles operate at a higher level of generality than rules”.⁵⁶ Rules provide for specific legal consequences in given situations. Principles bear broader normative parameters providing guidance and lie at the structural base of legal systems. They can be referred to as constitutive elements of legal systems. They apply primarily to circumstance that are not covered by rules in the strict sense, and serve as starting points for judicial decisions.⁵⁷

⁵⁴ Antunes, Nuno Marques. (2003). *Towards the Conceptualisation of Maritime Delimitation*. Boston: Maritime Nijhoff Publish, p. 96.

⁵⁵ Jennings R.Y. (1991). “What is International Law and How Do We Tell It When We See It?” in *Schweizerisches Jahrbuch fur internationales Recht*, 37, pp.73-92.

⁵⁶ International Law Association, *Final Report of the Committee on the Formation of Customary (General) International Law*, p.11.

⁵⁷ Antunes, Nuno Marques. (2003). *Towards the Conceptualisation of Maritime Delimitation*. Boston: Maritime Nijhoff Publish, p. 186.

A main distinction between rules and principles is that, unlike rules, principles should be construed in the context of other principles. When two rules collide one of them is inevitably invalid. In contrast, if two principles collide there is no challenge to the validity of any of them.⁵⁸ Due to being broadly normative, principles provide legal systems with more openness and flexibility than rules. Conflicting principles can often be applied jointly in the decision making process.⁵⁹

Whilst rules are imperative, principles reflect an idealistic norm. The normativity in case law stems from the relative optimisation of both principles and rules. Rules are often manifestations of principles and may reflect the integration of multiple principles.⁶⁰

Neither state practice nor jurisprudence reflects maritime principles in a definitive manner. For example, equidistance may be considered a maritime principle or simply a delimitation methodology for the practical application of the principle of equity. The 1958 Convention on the Continental Shelf adopted equidistance as a principle as well a method for resolving disputes over competing claims. By using it a principle, an area under dispute can be delimited along a line equidistant from the coasts of the two states who are parties to the dispute. Notably, UNCLOS does not refer to equidistance as a principle; nor is it referred to as the proper approach. Rather, Articles 74 (1) and 83 (1) refer to equitable resolutions to boundary disputes. Equidistance is viewed as one of a variety of methodologies and/or principles that have been developed to achieve this goal.⁶¹ Notably, Nuno⁶² suggests that state practice and jurisprudence have implicitly made use of two principles, namely, that of equity and the principle of maritime zoning.

⁵⁸*Ibid.* p. 187.

⁵⁹*Ibid.*

⁶⁰*Ibid.*

⁶¹Valencia, Mark J., Dyke, Jon M. Van, & Ludwig, Noel A. *Sharing the Resources of the South China Sea*, (1997), Hague: Kluwer Law International, p. 49.

⁶²Antunes, Nuno Marques. (2003). *Towards the Conceptualisation of Maritime Delimitation*. Boston: Maritime Nijhoff Publish, p. 195.

4.3 The equidistance principle

It is important to note before embarking on any further discussion that there is a distinction between equidistance as a juridical concept and as a geometrical methodology. The equidistance method considers technical problems concerning the definition of a certain line whose points are equidistance from defined basepoints⁶³. It would be too simplistic to literally consider that equidistance is merely a method, and therefore without any legal significance. Viewed as the notion of “closer proximity”, equidistance also possesses a corollary legal principle. Article 6 of the Geneva Convention provides that equidistance is not only a method, but a legal principle. As such, in most cases equidistance is the starting point in the process of delimitation.

4.3.1 The advantages of equidistance lines

The disadvantage of the equidistance lines is that it may create an inequitable condition without further consideration. On the other hand, the main advantage of delimitation based on an equidistance line is that, in the absence of irregular geographical conditions in the coastlines in question, it produces an equal division of maritime area. Another advantage of the application of equidistance lines is that they are based on proximity. Namely, equidistance provides for the allocation to a particular state of those maritime areas, which are closest to its coastline. This factor is largely considered with regard to the security of the coastal state. Beazley has pointed out that equidistance lines provide an objective method of achieving maritime boundaries. He states-

Provided that both parties are agreed on the legitimacy of the respective territorial sea baselines and basepoints, there is only one equidistant line, which will satisfy those conditions, and its course can be determined on strict geometric principles without ambiguity⁶⁴.

⁶³ ICJ Rep.(1969)24-29,paras.21-36.

⁶⁴ Beazley, P.B. (1979). “Half-effect Applied to Equidistance Lines”, in *international Hydrographic Review*, Vol. 56 (1), pp. 153-160.

Therefore, the maritime boundary can be determined unambiguously because of simple mathematical principles. In the absence of outstanding geographical features, the equidistance principle also provides an equitable division of maritime areas. Furthermore, another key attraction is that a particular state's coast can enjoy the closest proximity.

4.3.2 Equidistance and special circumstances

In any event, the recourse to equidistance was devised as a general rule and a starting point for delimitation, to which reasonable modifications were to be introduced where special circumstances so warranted.⁶⁵ The Committee of Experts realized that the strict application of the equidistance rule could be inequitable in many instances. Where there were special circumstances, these would have to be taken into account in combination with equidistance to arrive at an equitable solution. Thus the Committee designed a flexible legal standard whereby the combined consideration of the two elements mentioned above would be a complimentary method to the equidistance rule. However, it is difficult to apply this combined rule since there is no precise definition of special circumstances.

While special circumstances as a concept is of equitable character it is difficult to assert. It is clearly an equity-oriented concept. Exceptional configurations such as the concave or convex characteristics of the coastline, the location of islands, navigational channels, fishing interests, mineral deposits or exploitation rights, are examples that were advanced.⁶⁶ Nevertheless, these examples cannot be regarded as always constituting special circumstances. For example, it is not a rule that each island should be considered on its merits. Indeed classifying an island as a special circumstance would depend on an individual assessment of each case, not on some absolute notion. The Committee viewed navigation channel and fisheries as

⁶⁵ ILC Yearbook(1953). p. 216.

⁶⁶ Shalowitz, Aaron L. (1962). *Shore and Sea Boundaries (with Special Reference to the International and Use of Coast and Geodetic Survey Data)*, Vol. 2, Washington D.C., U.S. Government Printing Office.

irrelevant for the purposes of continental shelf delimitation. The conclusion is that special circumstances may result in equidistance resulting in an inequitable boundary. It is essential to modify the equidistance line to realize equity in delimitation. Nuno said:

When exceptions to a rule have to be considered, the choice between describing generally those situations and enumerating them exhaustively must always be made. Insofar as foreseeing all contingencies is sometimes impossible, in many circumstances a general definition of exceptions offers the best balance between certainty and fairness. More often than not exhaustive enumerations raise insurmountable difficulties. For one thing, they may lead to treating differently situations that, although not having been foreseen in the enumeration, are substantively equal to those included therein thus giving rise to great unfairness, for another, their rigidity increases the likelihood of obsolescence of the regime.⁶⁷

All in all, the use of strict equidistance was authorized by modifications and justified by special circumstances. Opting for strict equidistance would presuppose that there is no agreement to delimitation and also that there are no special circumstances, which can give rise to inequitable delimitations. Consideration of special circumstances may bring forth questions relating to unfairness, manifest hardship and undue hardship. A strict equidistance line will inevitably deviate to modified equidistance.

4.3.3 Equidistance and natural prolongation

The concept of natural prolongation in some ways echoes the concept of natural boundaries utilized by the French courts in the eighteenth century⁶⁸. The expression

⁶⁷Antunes, Nuno Marques. (2003). *Towards the Conceptualisation of Maritime Delimitation*. Boston: Maritime Nijhoff Publish, p. 34.

⁶⁸Prescott, V. "National Rights to Hydrocarbon Resources of the Continental Margin Beyond 200 Nautical Miles", in *Boundaries and Energy: Problems and Prospects*, Kluwer Law International publisher, 1998, p. 52.

natural prolongation also appeared in the *North Seas Continental Shelf* Cases in which the Court declared the following:

The rights of the coastal State in respect of the area of continental shelf that constitutes a natural prolongation of its land territory into and under the sea *exist ipso facto* and *ab initio*, by virtue of its sovereignty over the land, and as an extension of it in an exercise of sovereign rights for the purpose of exploring the seabed and exploiting its natural resources.⁶⁹

To put it succinctly, the entitlement of a coastal state over its continental shelf was based on the reality that the shelf constituted the natural prolongation of its land territory. In this physical or geological sense, natural prolongation was not only the basis of a right, but also a criterion for the delimitation of continental shelf boundaries⁷⁰. The Court added that-

Whenever a given submarine area does not constitute a natural-or the most natural-extension of the land territory of a coastal State, even though that area may be closer to it than it is to the territory of any other State, it cannot be regarded as appertaining to that State; or at least it cannot be so regarded on the face of a competing claim by a State of whose land territorial the submarine area concerned is to be regarded as natural extension, even if it is less close to it.⁷¹

Natural prolongation was thus considered to be a paramount element in the delimitation process. It is an issue related to the seaward extension of the continental shelf and not to its delimitation as between opposite or adjacent states. This is clearly because areas of natural appurtenance may overlap. The area of overlapping of rights and jurisdiction will be in some way divided. But such division is not singularly a matter of proportionality. Also, to the extent of its utilization, proportionality is not a

⁶⁹ ICJ Rep. (1969). at 22, para.19.

⁷⁰ Nelson L. D. M, "The Roles of Equity in the Delimitation of Maritime Boundaries." *The American Journal of International Law*. Vol. 84, (1990), pp. 846-848.

⁷¹ ICJ Rep. (1969). at 31, para.43.

pure mathematical evaluation. It is notable that in practice, states have overlooked the importance of undersea geological or geomorphological features both as the basis of legal entitlement and as a criterion for maritime boundary delimitation.

UNCLOS introduced the distance criterion or principle into the definition of the continental shelf in paragraph 1 of Article 76.⁷² In the *Tunisia/Libya* case the Court recognized the distance criterion and in the *Libya/Malta* case it introduced it as a principle of international law. There the Court established the distance criterion as the sole basis of title to the seabed and subsoil within the 200-nautical-mile limit. These developments led to the conclusion that “there is no reason to ascribe any role to geological or geophysical factors within that distance (i.e., within the 200-mile limit) either in verifying the legal title of the States concerned or in proceeding to a delimitation as between their claims.”⁷³

The Court has stated that the concepts of natural prolongation and distance are therefore not conflicting but complementary. Thus both remain essential elements in the juridical concept of the continental shelf. The Court’s view of the relevance of natural prolongation to delimitation had always been open a subject of criticism. It is difficult to understand why natural prolongation was discarded in this case. Its retention is essential as more and more complex juridical concepts arise. These concepts are in part defined by the distance from the shore, irrespective of the physical and natural aspects. The intervening seabed and subsoil is distinctly unnatural⁷⁴.

⁷² UNCLOS Art.76(1): The continental shelf of a coastal State comprises the sea bed and subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of its land territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental margin, or to a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured where the outer edge of the continental margin does not extend up to that distance.

⁷³ ICJ Rep. (1985). at 35, para.39.

⁷⁴ Brown E. D., *Sea-bed Energy and Minerals: The International Legal Regime* (Vol. 1). Dordrecht: Maritime Nijhoff Publishers, 1992, p. 278.

It became obvious that the introduction of the distance criterion would enhance the role of proximity in the delimitation of maritime boundaries within the 200-mile limit. It was reasonable to expect this to happen. Consequently the emergence of the distance principle as a primary basis for a coastal state's entitlement should have had more influence regarding equidistance as a method of delimitation.⁷⁵ However, the Court viewed that the introduction of the distance criterion did not confer any special status on the equidistance method of delimitation. This was the case with regard to a general rule or as a mandatory method of delimitation. Nor did the Court require that a "priority method, to be tested in every case."⁷⁶ The Court warned that the drawing of a median line constituted an appropriate step. Moreover, it asserted that delimitation should not be understood as implying that an equidistance line will be an appropriate starting point in all cases; even in all cases of delimitation between opposite states⁷⁷.

4.3.4 The landmark cases on equidistance

Judgments of the International Court of Justice (ICJ) and awards of *ad hoc* arbitration tribunals carry an abundance of clout in international maritime boundary delimitation law. Curiously enough, there are more judicial decisions and arbitral awards on maritime boundary disputes than on any other subject of international law. The trend continues to expand. Consequently, ICJ judgments along with *ad hoc* arbitration awards generally assume considerable significance in international law. There are two reasons for this. The first is that the existence of a distinct line of jurisprudence has been made possible by a series of decisions, which maintain a common thread. The second reason is that there is an absence of codified guidance, *opinio juris* and state practice. The ICJ, with some assistance from *ad hoc* arbitrations, seems to command substantial authority over international maritime

⁷⁵ See Counter-Memorial submitted by Canada, 1983 ICJ Pleadings (Gulf of Marine) 231, para.558 (June 28,1983).

⁷⁶ ICJ Rep. (1985). at 56, para.77.

⁷⁷ *Libya v. Malta*, ICJ Rep. (1985). at 33, para.34.

boundary delimitation law⁷⁸. Among the majority of cases, some influence the changing expansion of the equidistance principle, such as the *North Sea Continental Shelf* cases.

The *North Sea Continental Shelf* cases involved disputes between the Federal Republic of Germany (hereinafter “Germany”) and both the Netherlands and Denmark as regards to their continental shelf delimitation. The geographical setting is illustrated in Figure 5. A partial delimitation of the continental shelf, based on equidistance, had already started through negotiations. However, an agreement respecting the further course of the boundaries could not be achieved. In the meantime, there stood another agreement between Denmark and the Netherlands that defined a boundary strictly on the basis of equidistance and which imposed a trilateral injunction on Germany. This led to a dispute as to the location of the boundaries between these three states. The ICJ was then requested to declare “what principles and rules of international law were applicable to the delimitation”⁷⁹.

Germany argued its case mainly on the so-called principle of just and equitable share. It also asserted that the equidistance method and the rule of Article 6 (2) of the Geneva Convention had not become a rule of customary law. Moreover, even if the rule of Article 6 (2) were applicable, ‘special circumstances within the meaning of that rule would render the equidistant method inapplicable. Notably, the German case attempted to treat equidistance separately, downgrading it to a mere method, while elevating to principle concepts like just and equitable share’.⁸⁰

On the other hand, the Netherlands and Denmark both argued that delimitation should be effected according to the principles expressed in Article 6 (2) of the Geneva Convention. Both states asserted that equidistance was intrinsic to the

⁷⁸ Jonathan I. Charney., “Progress in International Maritime Boundary Delimitation Law”, *American Journal of International Law*, Vol. 88:227, (1994), pp. 227-228.

⁷⁹Special Agreements between Germany and The Netherlands, and between Germany and Denmark, *ICJ Pleadings* (1968-1) 6,8.

⁸⁰German Memorial and Reply, *ICJ Pleadings* (1968-1)30-36, 80-84, 91, 391-395, 425-432,435.

continental shelf concept. As agreement had not been reached, and no special circumstances existed *in casu*, it was thought that the boundary should follow the equidistance line.⁸¹ The first conclusion as regards the applicable normative standards was that natural prolongation and absolute proximity were irreconcilable. The Court's reasoning for this was that delimitations based on strict equidistance would sometimes attribute to one state an area that would infringe upon the natural extension of the land territory of the other state.⁸²

Secondly, the Court analysed the emergence of the continental shelf issue in international law. Giving great significance to the Truman Proclamation, it decided that this instrument confirmed the non-obligatory nature of equidistance. For the court, the historical evolution of boundary delimitation law indicated that no single method could be satisfactory in all circumstances, and that delimitation should be carried out by agreement on the basis of equitable principles.⁸³ Thirdly, as to Article 6, the Court rejected the idea that it personified a rule of customary law; that is to say, the equidistance principle was not considered to be a rule of customary international law. The Court rejected the contention of Denmark and the Netherlands, and considered that the principle of equidistance, as it figured in Article 6 of the Geneva Convention, had not been anticipated by the International Law Commission as an emerging rule of customary international law. This Article could not be said to have reflected or crystallized such a rule.⁸⁴

The court then went on to specify the grounds on which it considered that delimitation should be founded. The starting point was that delimitation should be the object of agreement between the states concerned, and that such an agreement should be arrived at in accordance with equitable principles. It was clarified that it was not a question of applying equity as a matter of abstract justice. The significant

⁸¹Danish and Dutch Memorials and Common Rejoinder, *ICJ Pleadings* (1968-1) 163-164, 190-198, 221, 318-320, 343-351, 375, 477-521, 537.

⁸² ICJ Rep.(1969). paras.39-46.

⁸³ *Ibid.*, pp.33-37,paras.47-56.

⁸⁴ *Ibid.*, pp.33-37,paras.60-82.

aspects of delimitation in this sense were recognized as the following: meaningful negotiation, relevant circumstances, equitable principles, natural prolongation and non-encroachment.⁸⁵ Moreover, it is commonly known that the Court in the North Sea Continental Shelf Cases demoted the equidistance principle.

4.3.5 The evolution of equidistance

Despite the noteworthy view adopted by the ICJ that a median line between opposite states resulted in an equal division of the maritime space involved in the 1969 *North Sea Continental Shelf Cases*, the Court concluded that the provisions relating to equidistance in the 1958 Geneva Convention had not become customary international law. The boundary could thus deviate from that rule⁸⁶. It is notable, however, that the Court embraced a unified equidistance/special circumstances rule. The progressive retreat from equidistance as a preferred method of delimitation in the case law was not so in terms of state practice in maritime boundary delimitation agreements⁸⁷.

This move away from equidistance over time is illustrated very well by the comparison of the texts of Article 6 of the 1958 Geneva Convention and Article 83 (1) of UNCLOS. In the former, in the absence of agreement, “the boundary is the median line.” UNCLOS, of course, does not mention equidistance or median lines, but refers to the need to achieve an equitable solution. This change in emphasis strongly indicates that the equidistance principle is by no means mandatory in international law. It arose as a result of strong pressure exerted by states at the Third Law of the Sea Conference who were against the concept of compulsory application of equidistance for ocean boundaries. As a result, the law of the sea as codified by UNCLOS and supported by judicial decisions, has been required to engage in the

⁸⁵ *Ibid.*, pp.47-48, paras.83-85.

⁸⁶ Charney, J.I. (1987). “The Delimitation of Ocean boundaries”, *Ocean Development and International Law*, p. 509.

⁸⁷ Prescott J. & Schofield, C. (2005). *The Maritime Political Boundaries of the World*. London: Methuen & Co. Ltd publisher. pp. 236-241.

process of taking into account all relevant circumstances in accordance with equitable principles in order to achieve an equitable result⁸⁸.

Nevertheless, the equidistance method, even if not obligatory, has proven itself to be the most popular delimitation method. The main reasons for this are its utilization of mathematical precision and its lack of ambiguity. Moreover, where the coastlines in question are not comparable and a strict equidistance line would result in an inequitable delimitation, the equidistance method has proved to be an adaptable and flexible method of delimitation. This is particularly the case in opposite coastline situations. Furthermore, even where a strict equidistance line does not become the final line of delimitation, it potentially provides a good starting point for negotiations, even if they are subsequently modified substantially⁸⁹. Finally, there are other issues that cannot be solved easily. Legault and Hankey exemplify this by stating the following:

The choice of means or methods for translating the relevant geographical and other circumstances into a precise line is, as ever, the most difficult issue in the law of maritime boundaries.⁹⁰

4.4. The principle of equity

Equity corresponds largely to common sense. It is a standard of reasonableness that seeks balance and equilibrium between the rights and obligations of parties in dispute.⁹¹ It is widely accepted that maritime boundaries must be determined by the application of equitable principles, taking account of all the relevant circumstances to achieve an equitable result. As a legal principle, equity is not susceptible to immediate application to a case. Its content can only be recognized by relative

⁸⁸ *Ibid.*

⁸⁹ *Ibid.*

⁹⁰ Legault, L., and B. Hankey, (1993). "Method, Oppositeness and Adjacency, and Proportionality in Maritime Boundary Delimitation". *International Maritime Boundaries, Vol. 1*, The Hague: Martinus Nijhoff. pp.203-242.

⁹¹ Antunes, Nuno Marques. (2003). *Towards the Conceptualisation of Maritime Delimitation*. Boston: Maritime Nijhoff Publish, p. 225.

optimization, and recognition of all factual and legal possibilities *in casu*. The task of the judge is to produce an equitable and just result on each individual case. To reach equity, the judge has to take into account the relevant circumstances of each particular case not only by balancing the various circumstances, but also by complimenting or articulating the interests of the parties.

4.4.1 The meaning of equity

It must be accepted from the outset that at the moment no comprehensive conceptual analysis of equity in international law is being sought. In the *Division of Water from the River Meuse* case, Judge Hudson identified maxims of equity to explain his approach to the Netherlands' complaint about Belgium's breach of the Treaty of 1863. In his explanation he articulated a common perception of what comprised general principles of equity in international law.⁹²

Judge Anzilotti, the Italian jurist who had been the *rapporteur* of the 1920 Advisory Committee tasked with drafting the Statute of the Permanent Court of International Justice (PCIJ), agreed with the above explanation, describing the maxim "one who seeks equity must be equity" as:

So just, so equitable, so universally recognized, that it must be applied in international relations. It is one of the general principles of law recognized by civilized nations.⁹³

Equity is indeed a concept that defies precise definition. Since it is fixed firmly to the individual and to social ethics and morals, every judicial mind has its own subjective perception of this phenomenon. It varies with time. Developments in human and social philosophy are bound to be influenced by the notion of equity at a given moment. Equity, as a legal concept, also varies in space. Nader and Starr conclude that "equity is not universal, but is dependent on time, place, and the

⁹² *Netherlands v. Belgium. Division of Waters From the River Meuse* (1937), PCIJ, (ser A/B), No. 70, p. 4.

⁹³ *Ibid.*, p. 4; 50.

restraints set against the “naked power” which the dominant members of a society might use”⁹⁴. In this discussion therefore, equity is portrayed as a broad notion of justice, which cutting across all legal orders.

The drafters of Article 38 appear to have held the opinion that equity itself was not an independent source of law as it was too vague a concept to demand universal acceptance. Thus predictably the Court has avoided discussing equity as an abstract idea. Nevertheless, when considered in the context of specific cases, equity has generated wide acceptance and is part of the general body of legal norms within the international order. It has achieved this by combining elements of equity with very concrete circumstances. To this extent equity is a general principle of law recognized by civilized nations. It is doubtless that equity is inherent in maritime delimitation. However, the role of equity and its mode of operation have raised certain doubts.

4.4.2 The role of equity in maritime boundary delimitation

In view of the fundamental role of equity in the delimitation of maritime boundaries, the proper function in the discharge of that role must be questioned. Two fairly distinct propositions appear to have arisen from this matter. The first interpretation views equity as a corrective measure. The function of equity here is to reduce the severity of the law in order to mitigate the effects of the application of the rule of law in particular circumstances in which the application of the strict rule of law would produce an injustice. The consequence of applying equity is the modification of the general rule of law where the particular circumstances of the case so require. With regard to the delimitation of maritime boundaries, many commentators believe that application of the equidistance principle embodies this general rule.

⁹⁴ Laura, Nader. & Starr, June. (1973). “Is Equity Universal?”. in Ralph A. Newman(ed.) *Equity in the World's Legal Systems: A Comparative Study*, Brussels: Etablissements Emile Bruylant, pp.125-137.

Under the second approach, equity is regarded as playing a more independent role. Equity here functions as an essential part of international law. The court itself observed the following in the *Tunisia/Libya* case:

Equity as a legal concept is a direct emanation of the idea of justice. The Court whose task is by definition to administer justice is bound to apply it. In the course of the history of legal systems the term “equity” has been used to define various legal concepts. It was often contrasted with the rigid rules of positive law, the severity of which had to be mitigated in order to do justice. In general, this contrast has no parallel in the development of international law; the legal concept of equity is a general principle directly applicable as law.⁹⁵

There stands the proposition that the uniqueness of each maritime boundary situation obstructs the establishment of norms. Therefore the application of general rules of delimitation seems to go hand in hand with the notion of autonomous equity. In relation to this, it must be kept in mind that equity plays a lead role in the delimitation process. It is to provide rules or criteria pertaining to each particular case and these rules or criteria are inevitably various from case to case.

However, some important criticisms have been leveled at this idea. One is that each maritime boundary dispute should be considered and judged on its own merits, having regard to its peculiar circumstances. The argument has been expressed as follows:

An excessive individualization of the rule of law, which changes from one case to another, would be incompatible with the very concept of law. Every legal rule presupposes a minimum of generality. A rule which is elaborated on a case basis rests on the discretionary power of the judge, on conciliation, on distributive justice⁹⁶.

⁹⁵ ICJ Rep. (1982). at 60, para. 71.

⁹⁶ *Libya v. Malta*, 1983 ICJ Pleadings 59, para.111.

This problem is not at all confined to maritime boundary delimitation. The tension between the need for particular justice arising from the uniqueness of a specific case and the demand for universal justice constitutes a wide ranging legal problem. Necessarily, it will be the law that will accommodate itself to this phenomenon, perhaps shedding in the process what some consider one of its most fundamental characteristics, that is to say its universality, at least as far as the delimitation of maritime boundaries is concerned⁹⁷.

In conclusion, the role of equity is to appreciate and balance the relevant circumstances of the case to render justice. This must be achieved not through the rigid application of general rules and principles and of formal legal precepts, but through adaptation and adjustment of such principles, rules and concepts to the facts, realities and circumstances of each case. The court must render justice in each concrete case, by means of a decision shaped by and adjusted to the relevant factual circumstances of that case.⁹⁸

4.4.3 The equitable principle

The negotiation of these provisions of UNCLOS revealed the existence of two opposing groups of interests. These are the Equidistance Group and the Equitable principles Group respectively. The former supported the argument for the combined equidistance-special circumstances rule, whereas the latter favored the idea of delimitation in accordance with equitable principles. States did not heed any consideration to being compelled to retain the use of equidistance-special circumstances as set out in the 1958 Geneva Convention. As noted above, the ICJ had not accepted this rule as customary international law in the *North Sea Continental Shelf* cases. Furthermore, the arbitral tribunal in the *Channel Islands* case subsequently considered that equitable principles and relevant circumstances were equivalent to the method set out in Article 6 of the 1958 Geneva Convention.

⁹⁷ Nelson L.D.M., "The role of Equity in the Delimitation of Maritime Boundaries" in *The American Journal of International Law* Vol.84, 1994, pp. 841-843.

⁹⁸ ICJ Rep. (1982), at 106, para. 24.

Yet, the application of equitable principles was not considered to be a mechanism for advancing the chances of attaining a solution any further given the indeterminate nature of equity and the unlimited categories of relevant circumstances, at least in theory.⁹⁹

The Equidistance Group considered that delimitation should employ “as a general principle, the median or equidistance line, taking into account any special circumstances where this is justified.”¹⁰⁰ The final proposal of the Equitable Principles Group suggested, on the other hand, that delimitation should be effected “in accordance with equitable principles, taking into account all relevant circumstances and employing any methods, where appropriate, to lead to an equitable solution.”¹⁰¹ As there was a failure to reach any compromise on the use of the equidistance-special circumstances formulation or a reference to equitable principles, Article 74 and 83 of the Convention provide that the delimitation of the EEZ and the continental shelf, respectively, shall be effected by agreement in accordance with international law in order to attain an equitable solution.

Most certainly the suggestion that Article 74 (1) and 83 (1) embody the rule of “delimitation in accordance with equitable principles” is owed “more to wishful thinking than well founded treaty interpretation”.¹⁰² Insofar as normativity is concerned, the Article 74 (1) and 83 (1) formulae have been criticized by scholars as being vague and indeterminate, virtually meaningless and fraught with judicial uncertainty. These articles have been viewed as establishing that delimitation agreements shall “achieve an equitable solution”. If taken literally on its own, this expression would open the floodgates of interpretation regarding the various reasons

⁹⁹ Jonathan I.C., (1994). “Progress in International Maritime Boundary Delimitation Law”. *The American Journal of International Law*, 88, 227-228.

¹⁰⁰ Antunes, Nuno Marques. (2003). *Towards the Conceptualisation of Maritime Delimitation*. Boston: Maritime Nijhoff Publish, p. 85.

¹⁰¹ *Ibid.*

¹⁰² Brown, E.d. (1992). *Sea-bed Energy and Minerals: The International Legal Regime*, Vol. 1-The Continental Shelf, Dordrecht-Boston-London: Martinus Nijhoff Publishers, p. 360.

that lead to equitableness. This would allow for wide discretionary powers. Judge Oda has stated:

The words “ in order to achieve an equitable solution” cannot be interpreted as indicating anything more than a goal and a frame of mind, and are not expressive of a rule of law...the deciding factors in such diplomatic negotiations are mainly the negotiating powers and the skills of each State’s negotiator. In other words, there is no legal constraint, hence there is no legal rule, which guides negotiations on delimitation, even though the negotiations should be directed “to achieve an equitable solution.”¹⁰³

Thus, UNCLOS grants States and third parties the responsibility to devise a maritime boundary. A wide scope is left for considering a range of sources for ascertaining what would be an equitable solution in the circumstances of each case. It is not possible to identify a universal standard that could be applied in all maritime delimitations. Moreover, as to what constitutes an equitable result varies in accordance with the geography of each of the relevant areas¹⁰⁴. At best, the cases may indicate what factors can be considered in delimitation. However no guidance is provided with respect to how factors relevant to delimitation are to be balanced or weighted¹⁰⁵. Consequently, the failure of states to arrive at an agreement on maritime delimitation is not widely due to a difference in interpretation over the rules of international law but rather a difference of opinion on what constitutes an equitable solution.¹⁰⁶

¹⁰³ Oda, S. (1995). “Dispute Settlement Prospects in the Law of the Sea”. *International and Comparative Law Quarterly*, 44, 807-848, p. 869.

¹⁰⁴ Klein, N. (2005). *Dispute Settlement in the UN Convention on the Law of the Sea*. New York: Cambridge University Press, p. 245.

¹⁰⁵ Evans, M.D. (1991). “Maritime Delimitation and Expanding Categories of Relevant Circumstances”. In *International and Comparative Law Quarterly*, 40, 1-33, pp. 27-28.

¹⁰⁶ Oda, S. (1995). “Dispute Settlement Prospects in the Law of the Sea”. *International and Comparative Law Quarterly*, 44, 807-848, p. 870.

Therefore, there are no explicit definitions of the equitable principles. The meaning of “equitable principles” is examined in the *Tunisia-Libya Continental Shelf* case by the following:

The result of the application of equitable principles must be equitable. It is the result which is predominant; the principles are subordinate to the goal. The equitableness of a principle must be assessed in the light of its usefulness for the purpose of arriving at an equitable result. The principles to be indicated by the Court have to be selected according to their appropriateness for reaching an equitable result. The term “equitable principles” cannot be interpreted in the abstract; it refers back to the principles and rules which may be appropriate in order to achieve an equitable result.¹⁰⁷

Naturally, the Court is exceptionally vague in describing an equitable result. It is also quite vague as to what is involved in the application of equitable principles as part of international law. It is clear that what is reasonable and equitable in any given case must depend on its particular circumstances; that is to say, the Court should go on to identify which relevant circumstances must be taken into account in achieving equitable delimitation in certain cases.

4.4.4 The principle of equity and relevant circumstances

Article 59 establishes that any conflicts “should be resolved on the basis of equity and in the light of all relevant circumstances”. As mentioned above, there has been no systematic definition of the criteria which could be used to determine an equitable delimitation. As the Chamber of the ICJ noted in the 1984 *Gulf of Maine* case between the USA and Canada:

There has been no systematic definition of the equitable criteria that may be taken into consideration for an international maritime delimitation, and this would in any event be difficult a priori, because

¹⁰⁷ ICJ Rep. (1982), para.72-75.

of their highly variable adaptability to different concrete situations. Codification efforts have left this field untouched (International Court of Justice, 1984, para.157).

Similarly the following has been asserted:

International law does not require that maritime boundaries be delimited in accordance with any particular method; rather it requires that they be delimited in accordance with equitable principles, taking into account all of the relevant circumstances of the case so as to produce an equitable result. The equitable principles are indeterminate and the relative circumstances are theoretically unlimited.¹⁰⁸

Thus there is ample scope for differing interpretations as to which factors are applicable to a particular case. Consequently, this leaves a wide space for potential dispute and deadlock in delimitation negotiations. There is a clear distinction between the considerations presented before international courts and tribunals, and the factors raised in the course of negotiations. It is prudent to note that while courts and tribunals are bound to render decisions on the basis of international law, in the context of negotiations, the states concerned are only required under international law to negotiate in good faith.¹⁰⁹

Furthermore, states are not required to divulge how a particular delimitation was precisely achieved. Nor are they bound to reveal what factors ultimately came into play in the course of bilateral negotiations. This is largely because maritime boundary delimitation is fundamentally a political process. It encompasses highly sensitive issues of sovereignty and sovereign rights. These issues touch upon the national concerns over security, economic interests and integrity and legitimacy for

¹⁰⁸ Charney, J.I. (1994). "Progress in International Maritime Boundary Delimitation Law", in *American Journal of International Law*, 88 (2), p. 230.

¹⁰⁹ Prescott J. & Schofield C. (2005). *The Maritime Political Boundaries of the World*. London: Methuen & Co. Ltd publisher, pp. 222-224.

the states concerned. Boundary delimitation scholars are left with the challenge of interpreting such agreements based on incomplete information. This potentially obliges the scholar to engage in a certain amount of speculation based on relevant geographical and legal principles.¹¹⁰

In conclusion, it can be said that the obligation laid down in UNCLOS achieves the following result. Inequitable solutions must be avoided. The means by which non-inequitable solutions are to be attained are specified only indirectly, through the expression “on the basis of international law”. In international law Courts are thus bound to seek out the normative basis upon which delimitations are to be effected. In the search of non-inequitable solutions, the circumstances and methods to be considered in maritime boundary delimitation are strictly those which are allowed, and more importantly, those required by international law¹¹¹. Unfortunately, seeking out the standard of inequity within the realm of international law directly is a rather complex task.

4.4.5 The principle of equity and proportionality

As equitable principles sitting at the heart of the law of maritime boundary delimitation are relatively broad, a degree of judicial creativity is inevitable in the application of these principles to specific cases. Therefore, international courts and tribunals are often confronted with potential gaps and lacunae in the law, and must develop rules regarding the legal effect to be attributed to those factors within the framework of equitable principles. At present, the use of proportionality is well established in case law, and plays a double role. Firstly, it acts as a test of equitableness and secondly, it functions as a justification for shifting initial equidistance lines. In order to clarify the role of proportionality, it is crucial to retrace the application of that concept in case law.

¹¹⁰ *Ibid.*

¹¹¹ Antunes, Nuno Marques. (2003). *Towards the Conceptualisation of Maritime Delimitation*. Boston: Maritime Nijhoff Publish. pp. 93-94.

a) The North Sea Continental Shelf Cases (1969)

The concept of proportionality in maritime delimitations was initially formulated by the Federal Republic of Germany (herein after Germany) in the *North Sea Continental Shelf* cases. Germany argued that each state concerned should have a just and equitable share of the available continental shelf, proportionate to the length of its coastline or sea frontage.¹¹² Although the ICJ rejected the idea of a “just and equitable share”, it accepted proportionality as a final factor to be taken into account.

A final factor to be taken into account is the reasonableness of proportionality. Any delimitation effected according to equitable principles should result in the respective extents of the continental shelves appertaining to the states concerned being measured according to the respective lengths of their coastlines. Furthermore the general direction of the coastline must be taken into account so that there is an equitable balance between states with significant concave or convex coastline configurations. In this way significantly irregular coastlines will be taken into account according to their proper proportions.¹¹³

The court then suggested that there were three geographical features which justified the recourse to proportionality. The first was that the coasts of the three states concerned were adjacent to each other; the second was that the German coastlines of the German were concave; lastly, the coastlines of the three states abutting onto the North Sea were comparable in length. It was in this particular geographical situation that proportionality came into play. It was in order to eliminate or diminish the distortions created by recourse to the equidistance method.

In relation to this linkage it should be noted that the Court regarded proportionality not as a separate principle of delimitation, but as a factor which would guarantee that delimitation would comply with equitable principles. In 1969, it

¹¹² ICJ Rep. (1969). 52, para. 98.

¹¹³ *Ibid.*, p.50, para.91.

is doubtful whether the Court held the view that the theory of proportionality would be universally applicable to maritime delimitation.¹¹⁴

b) The Tunisia/Libya Case (1982)

The Tunisia/Libya case altered the concept of proportionality (See Figure 6). The Court stated that [it] “... considered that the element of proportionality is indeed required by the fundamental principle of ensuring an equitable delimitation between the States concerned.”¹¹⁵ In the Tunisia/Libya case, the coastlines of the parties were neither concave nor comparable to those of the North Sea. However, the Court still accepted the need to consider the element of proportionality. Therefore, seemingly it abandoned the meticulous interpretation of that element, which had curtailed its own application to particular geographical circumstances.

In applying the test of proportionality, the ICJ made a sophisticated computation. Nevertheless, the method used for assessing proportionality is not free from criticism. First, while reaffirming that the continental shelf in the legal sense did not encompass the seabed areas beneath internal and territorial water,¹¹⁶ the Court considered these zones as parts of the continental shelf for the purpose of calculating proportionality.¹¹⁷ Indeed, the results of the proportionality test may be differing according to whether or not internal and territorial waters are to be included in the calculation. Second, it is unclear how the coastal lengths and relevant areas were calculated. On this point, the Court generally asserted that only the coasts of overlapping maritime areas were deemed as relevant.¹¹⁸

c) The Libya/Malta Case (1985)

¹¹⁴ Tanaka, Yoshifumi. (2001). “Reflections on the Concept of Proportionality on the Law of Maritime Delimitation”, *The International Journal of Maritime and Coastal Law*, 16 (3), p. 435.

¹¹⁵ ICJ Rep. (1982). 75, para.103.

¹¹⁶ ICJ Rep. (1982). 76, para.104.

¹¹⁷ *Ibid.*, p. 91, para.131.

¹¹⁸ *Ibid.*, p. 61, para.75.

The scope of the proportionality test was expanded again in the *Libya/Malta* case. While the earlier cases related to delimitations between adjacent coasts, this case illustrated how proportionality was applied in delimitation between states with opposite coasts (see Figure 7). In the *Libya/Malta* case, the Court examined the concept of proportionality at three levels.¹¹⁹

The Court first examined a Libyan argument which supported that “in the particular geographical situation of this case, the application of equitable principles requires that delimitation should take account of the significant difference in lengths of the respective coastlines which face the area in which the delimitation is to be effected”. The Court refused to accept this argument. This was on the grounds that to use the ratio of coastal lengths to determine the coastal state’s seaward reach and to use this ratio to determine the area of the continental shelf proper with regard to each party, is to go far beyond the use of proportionality as a test of equity. “If such a use of proportionality were right”, the Court added, “it is difficult indeed to see what room would be left for any other consideration.”¹²⁰

Moreover the Court did take into account the difference in coastal lengths in the delimitation process itself. It held that: “This difference is so great as to justify the adjustment of the median line so as to attribute a large shelf area to Libya.”¹²¹ The court thus adjusted a provisional median line through 18’ North Latitude. However, in respect of this judgment, the Court did not specify any particular criteria in determining any disparity between coastlines or in shifting the median line. Finally, the Court applied proportionality as a test in determining the equitable delimitation. According to the court, however, this did not prevent it from applying the test of proportionality, and it was possible to arrive at a broad result from the

¹¹⁹ Tanaka, Yoshifumi. (2001). “Reflections on the Concept of Proportionality on the Law of Maritime Delimitation”, *The International Journal of Maritime and Coastal Law*, 16 (3), p. 440.

¹²⁰ *Libya v. Malta*. Counter-Memorial of Libya, Pleadings, vol. II, p.174.

¹²¹ ICJ Rep. (1982), p.50, para.68.

angle of proportionality. The Court concluded that there was no evident disproportion in this case.¹²²

Moreover, the *Libya/Malta* judgment raised two main problematic issues in relation to proportionality. First, it should be noted that the difference in coastal lengths was already reflected in the surfaces of the two zones separated by the median line (see Figure 8). In fact, the northern part of the area delimited by the median line was notably smaller than the southern portion because of the much shorter coasts of Malta and the much longer coast of Libya. Accordingly, there was seemingly no reason to give an additional area to Libya because its coastlines were longer than those of Malta. Second, in this case proportionality played a double role. Not only was it used as a factor for adjusting a provisionally drawn median line but it was also used as a test of equitableness *vis a vis* the result. This double use of proportionality points to circular logic.¹²³ In light of the above, doubt surrounding the mode by which the proportionality method in delimitation is operated is also a problem.

Through the cases mentioned above, the Courts have succeeded in expanding the scope of proportionality both geographically and functionally. First, as regards to geography, the concept of proportionality was originally depicted through the *North Sea Continental Shelf* cases. In these instances proportionality functioned to correct inequitableness produced by the equidistance method on three geographical situations. They are - (i). adjacent coasts; (ii). existence of particular coastal configurations, such as concavity and convexity; and (iii). quasi-equity of coastal lengths. In the *Tunisia/Libya* case, the ICJ relied on proportionality when delimiting adjacent coasts, even though there was no issue relating concavity or convexity. Later on, in the second segment of *Gulf of Maine, Libya/Malta, Greenland/Jan Mayen* and *Eritrea/Yemen* cases, proportionality was considered in delimitation

¹²² *Ibid.*, para. 75, pp. 53-55.

¹²³ Tanaka, Yoshifumi. (2001). "Reflections on the Concept of Proportionality on the Law of Maritime Delimitation", *The International Journal of Maritime and Coastal Law*, 16 (3), pp. 442-443.

between states with opposite coasts. Thus, the courts began to resort to the concept of proportionality in variously differing geographical situations.¹²⁴

There still remain problems of proportionality in the realm of case law. The most serious problem is that there is no objective criterion specifically imposed to define the relevant coasts and areas and to compute their respective lengths and surfaces. The concept of proportionality is far from objective when it comes to determining and calculating relevant coasts and areas. The second problem relates to the subjectivity of proportionality in its application. Both the existence of disproportion between coastal lengths and the extent of the adjustment of the provisional line were determined according to the judges' discretions. Finally some have considered the role of proportionality as that of a mere test, while others have viewed it as a corrective factor during the delimitation process. However, the distinction between proportionality as a test and as a corrective factor is obscure.

In conclusion, though the enlarged role attributed to proportionality is not free from difficulties, owing to its mathematical and quantitative character, the concept of proportionality may be seen to enhance objectivity and predictability in the law of maritime delimitation. At present, however, it must be concluded that such objective criteria are still lacking. The legitimacy of proportionality in maritime delimitation depends on whether international courts and tribunals take it upon themselves to establish such criteria.

4.4.6 The application of equity

Courts are central to the practical operation of equity. This assertion is incorporated not only in paragraph 2 of Article 38 of the Statute of the ICJ - its non-normative facet - but also in paragraph 1 (c) which denotes its normative facet.

¹²⁴ *Ibid.*, p. 457.

Further, the operation of equity exists outside Article 38 as general guidance in the application of law.¹²⁵

In comparison with the pace of technological progress and sociological evolution, the law-making process in international law is admittedly slow. This is regardless of whether customary law or conventional law is the issue in question, although conventions by their very nature take form and become effective at a faster pace. This means that often, when an international court is asked to adjudicate over a certain issue, it will be faced with unclear normative standards¹²⁶. Maritime delimitation law is a good example. As international law has an undeveloped area, courts are compelled to engage in more relevant participation in developing law that poses few difficulties. Equity then emerges as an expression of the open characteristic of international law, seeking to accommodate, and to respond to, these situations. Normativity being a rather loose concept than in municipal law, international law provides principles such as equity a larger field of operation¹²⁷.

The Libya/Malta case is a landmark decision. It has rebuilt the notion of equity on quite solid grounds. The most significant aspect of the judgment in this case is the way in which equity is confined to certain bounds, in order to increase the level of predictability of considerations which must be weighed. The court stated in this case that-

The justice of which equity in an emanation, is not abstract justice but justice according to the rule of law; which is to say that its application should display consistency and a degree of predictability; even though it looks with particularity to the peculiar circumstances of an

¹²⁵ The Statute of the ICJ. Article 38 Paragraph 1(c): the general principles law recognized by civilized nations. Paragraph 2: This provision shall not prejudice the power of the Court to decide a case *ex aequo et bono*, if the parties agree thereto.

¹²⁶ The pronouncements in the Nuclear Weapons Advisory Opinions illustrate this idea very well. ICJ Rep. (1996-I). p. 226.

¹²⁷ Antunes, Nuno Marques. (2003). *Towards the Conceptualisation of Maritime Delimitation*. Boston: Maritime Nijhoff Publish, p. 221.

instant case, it also looks beyond it to principles of more general application...Although there may be no legal limit to the considerations which states may take account of, this can hardly be true for a Court applying equitable procedures. For a court, although there is assuredly no closed list of considerations, it is evident that only those that are pertinent to the institution of the continental shelf, as it has developed within the law, and to the application of equitable principles to its delimitation, will qualify for inclusion¹²⁸.

The court had finally acknowledged that approaches which were previously adopted contained elements of danger. Firstly, it stressed that recourse to equity should display a degree of consistency and predictability, and be of general application. Secondly, it complemented the 1969 North Sea judgment by emphasizing that the considerations that courts are entitled to weigh do not necessarily encompass all those that states may consider in negotiations. Finally, it pronounced that only those factors legally pertinent to the institution in question may be considered¹²⁹.

Furthermore, as general principles of justice cut across all legal orders, it is contended that equity equates to reasonableness. This stipulates that the interpretation and application of normative standards and the result must be reasonable in light of the factual circumstances of each case¹³⁰. Suffice it to say that important steps taken by courts are simply justified by linking lack of equity with lack of reasonableness or disproportionality. In an attempt to render equity objectively, it is submitted that the problem of equity may be evidenced in three very different perspectives. They correspond to the search for a solution of equivalence, the seeking of a solution to proportionality, or attaining a solution that is final.

¹²⁸ ICJ Rep.(1985). paras.45,48. pp.39-40.

¹²⁹ Antunes, Nuno Marques. (2003). *Towards the Conceptualisation of Maritime Delimitation*. Boston: Maritime Nijhoff Publish, p. 231.

¹³⁰ ICJ Rep.(1985) paras. 6.4.(a) (v).

Adjudicated boundaries ought to be reached through objective analysis, and in their determination applicable normative standards should be considered. The question to answer is how the reasonableness of means and of ends in the light of a normative framework should be expressed where two principles of equity and reasonableness are integrated. It is submitted that the best approach is to resort to the “maxim of proportionality”.

Participants in legal argumentation and discourse must bear in mind that the application of a principle does not necessitate the exclusion of another principle. When principles collide or overlap, the normativity of the system stems from their mutual influence. The two principles must be construed in light of each other, through a process of weighting so that relationships of precedence emerge in cases. Thus it is asserted that normativity emanates from colliding principles, the integration of which moulds the outcome. Reasonableness and equity must therefore be reciprocally optimized.¹³¹

Normativity emanates from principles and standards with a variable scope. When the factual circumstances in a case do not effect the collision of two principles, close proximity leads to a reasonable solution. Conversely, when the equidistant boundary is deemed inequitable two principles have collided. They must then undergo a process of optimization. In relation to the integration of concurrent rights inherent in this process, resort must be had to the maxim of proportionality. In particular, its three sub-parameters, namely adequacy, necessity, and proportionality must be considered.¹³²

The interrelation between reasonableness of equidistance and adjustment determined by equity is made clear in the sliding-scale illustrated in Figure 9. The optimization of principles amounts to the “discovery” of the “case-norm” by which

¹³¹ Antues, Nuno Marques. (2003). *Towards the Conceptualisation of Maritime Delimitation*. Boston: Maritime Nijhoff Publish, p. 241.

¹³² *Ibid.*, p. 243.

the delimitation case is decided. This case-norm corresponds to a specific point on a relative weighing-up curve which lies along two axes - one representing the equidistance principle, and the other representing the principle of equity. The equidistance should give way to a reasonable boundary-line as the role played by the principle of equity is minor. By contrast, if the equidistance line is unreasonable, the principle of equidistance becomes less dominant. In turn the principle of equity becomes predominant. Conceptually, this approach explains two key points that have been debated at length. First, the equidistance-special circumstances rule is a manifestation of two principles of international law. Secondly, to the extent that these principles are reconcilable, the legal argument between apologists of equidistance and the defenders of equity has indeed been “based on a false antithesis.”¹³³

Recent international maritime boundary decisions are directed towards fundamental maritime boundary law, practice and procedure. The decisions carry forward the equitable principles of law which in turn uphold the settlement of maritime boundary disputes. This progress is reinforced by the ICJ endorsed merger of the equidistance-special circumstances rule of the 1958 Geneva Convention, and the equitable/relevant circumstance result rule of contemporary general international law. The court is now in a position to construct further contributions that will encourage greater consistency and predictability in equity principles of maritime boundary. Equity is not a positive condition. Its function in the delimitation process is to make certain that the balance of rights and interests attained for the overlapping of entitlement is not grossly unreasonable. The factors which enable such a balance to be achieved, although emanating from the particular factual circumstances, must be selected through the legal regime of the maritime zones in order for delimitation to occur.¹³⁴

¹³³ *Ibid.*, pp. 244-245.

¹³⁴ *Ibid.*, p. 238.

CHAPTER 5

INTERNATIONAL LAW PRINCIPLES OF CONTINENTAL SHELF DELIMITATION IN THE EAST CHINA SEA BETWEEN JAPAN AND CHINA

As emphasized in previous chapters, maritime boundary delimitation can be classified into two phases. They are the politico-legal phase and the technical phase. Therefore maritime delimitation is integrated by political, legal and technical factors which cannot be examined separately. It is noteworthy that the political issue always prevails among them. The Sino-Japanese continental shelf delimitation disputes in the East China Sea occurred because of the historically sensitive relationship between the two states. These disputes proved to contain complex geological and geomorphological features. The less normativity there is in international law, the more the disputes are entangled. As enunciated in Chapter 3, Japan has adopted the equidistance principle, while China has insisted on natural prolongation. At first glance, they appear to project an antithesis. Nevertheless, as analysed above, the two principles can be reconciled if China and Japan are willing to solve the disputes surrounding equity through the international law regime.

5.1 Equidistance principles

It is mentioned in chapter 3 that Japan has advocated the application of the median line as a delimitation line for the EEZ and the continental shelf in the absence of an agreed line with the opposite country. Meanwhile China has refused to comply with the equidistance principle and insists that it will discard as inequitable the use of the equidistance method in the East China Sea. Naturally, Japan has claimed the

equidistance principles, and China has adopted equitable principles instead. However, their propositions can be integrated into the general international realm of equitable principles and can be adjusted in the normative framework as illustrated in Figure 9.

It has been stated that equidistance has not enjoyed any priority or preferential status in terms of delimitation of maritime boundaries since the *North Sea Continental Shelf* cases. Nevertheless, it is notable that there is an advantage regarding utilization of the equidistance principle. Therefore, it is popular in state practice and used as the starting point of the delimitation decision. In the case of the East China Sea, when applying the equidistance principle, certain special circumstances are needed to adjust the equidistance line in order to obtain an equitable result and for this part of the maritime boundary to be fixed.

5.1.1 Islands

Up until now, there is nothing to suggest that a solution to the dispute of the ownership of the Senkaku/Diaoyu Islands is near. The question is whether the Senkaku/Diaoyu Islands is an issue of “representativeness” of the basepoints for delimitation. To illustrate “representativeness”, reference can be made to the Greece/Italy agreement, which illustrates various combinations. Corfu, Kefallinia and Zakynthos, islands with long coastlines positioned very close to the mainland were given full-effect; Fanos and Samothrake, islands further offshore, having shorter coasts, were given three-quarter-effect; and the Strofades, islands with even shorter coastlines, located even further offshore, were given half-effect¹³⁵. Obviously, two factors will affect the islands “representativeness” delimitation. One element is the size of the particular island; the other is its distance to the mainland. As to the Senkaku/Diaoyu Islands, they are small barren islands and coral reefs and far in proximity from the mainland (see Figure 4).

¹³⁵ *Ibid.*, p. 298.

This idea was explored in the *Qatar/Bahrain* case, in relation to the effect of Qit'at Jadarah. Here the Court observed that:

It is a very small island, uninhabited and without any vegetation. This tiny island, which-as the Court has determined-comes under Bahriani sovereignty, is situated about midway between the main island of Bahrain and the Qatar peninsula. Consequently, if its low-water line were to be used for determining a basepoint in the construction of the equidistance line, and this line taken as the delimitation line, a disproportionate effect would be given to an insignificant maritime feature¹³⁶.

The court therefore concluded that there was no effect given to Qit'at Jaradah. The Senkaku/Diaoyu Islands are similar to the Qit'at Jaradah. They are small islands and located about the equidistance line.

In conclusion, pursuant to the state practice and case law, considering the characteristics of the Senkaku/Diaoyu Islands, it is impossible to regard them as having undergone the full effect of maritime delimitation. Furthermore, ownership disputed surrounding these islands is also difficult to effect¹³⁷.

5.1.2 Length of coastline

The idea that the apportionment of areas affected by delimitation must be a reflection of the coastal length of the states involved was first advanced by Germany, in the *North Sea* cases. In its judgment, the Court acknowledged that “a reasonable degree of proportionality” must be factored in delimitation¹³⁸. To one degree or another, coastal length has been given relevance in jurisprudence since this decision was made. Coastal length is relevant to delimitation, not because it supports some

¹³⁶ *Qatar v. Bahrain* case, ICJ Rep. paras. 210-216.

¹³⁷ Abu Musa, an island in the Persian Gulf, which is claimed by both Iran and the United Arab Emirates (UAE) is disregarded in the continental shelf delimitation. Another example is the Kachativu Islet Between India and Sri Lanka.

¹³⁸ ICJ Rep.paras.2.3.

arguments of states, but because it is a requirement of the principle of equity. The terminology “coastal length comparison” has been used to refer to a methodology based on coastline length measurements, area calculations, and successive approximation processes.¹³⁹ Some calculations involved, however, also underlie the juridical notion of proportionality.¹⁴⁰

As illustrated above, the scope of the proportionality test was expanded in the *Libya/Malta* case. The situation surrounding the Sino-Japanese disputes involving the East China Sea is similar to that in the *Libya/Malta* case. By comparison, China is in the same position as Libya, which has a longer coastline length than its adversary, while Japan has a shorter coastal length than its opponent and can therefore be compared to Malta in that sense. The court took into account the difference of coastal lengths in the delimitation process of the *Libya/Malta* case, and held that the discrepancy was too great to justify the adjustment of the median line so as to attribute a large shelf area to Libya. Pursuant to this case, in consideration of the much longer coastline of China, the median line should allow China to have a large shelf area.

5.2 Natural prolongation and Trough

China will likely put forward another important argument in support of its position, namely, that of natural prolongation. More specifically, this argument involves the significance of the Okinawa Trough within the scope of continental shelf delimitation. As mentioned above, the Okinawa Trough has made the China and Japan delimitation process in the East China Sea more complicated. The East China Sea Basin is vast yet shallow, with water depths of less than 200 meters except in the Okinawa Trough along the Japanese coast. The seabed slopes gently from the Chinese coast until it dramatically plummets into the Okinawa Trough whose depth reaches nearly 2,300 meters at its deepest. China argues that the Okinawa Trough,

¹³⁹ IHO. (1993). *A Manual on Technical Aspects of the United Nations Convention on the Law of the Sea*, 1982-TALOS Manual, Third Edition, Monaco, International Hydrographic Bureau, p. 111.

¹⁴⁰ Weil, P. (1989). *The Law of Maritime Delimitation-Reflections*. Cambridge: Grotius Publications.

which does not follow the Japanese coast closely, proves that the continental shelves of China and Japan are not connected, and that the Trough itself actually serves as the boundary between them.¹⁴¹

The origin of the idea that “natural prolongation” is pertinent to the delimitation of the boundaries of the continental shelf between neighbouring states is to be found in the judgment of the ICJ in the *North Sea Continental Shelf* cases. The Court described “the most fundamental of all the rules relating to the continental shelf” in the following words:

The rights of the coastal State in respect of the area of continental shelf that constitutes a natural prolongation of its land territory into and under the sea exist *ipso facto* and *ab initio*, by virtue of its sovereignty over the land, and as an extension to fit in an exercise of sovereign rights for the purpose of exploring the seabed and exploiting its natural resources¹⁴².

Therefore, if there is ‘a major and persistent structural discontinuity of the seabed and subsoil of such a kind as to interrupt the essential geological continuity of the continental shelf’¹⁴³, then, in a sense, the concept of natural prolongation would be pertinent to the question of delimitation. It is also important to note the case regarding the Timor Trench boundary between Australia and Indonesia where the 2000-meter-deep Trench marks the northern limit of the Australian continental margin¹⁴⁴. China’s position is similar to those involving the precedent cases mentioned.

¹⁴¹ Ji, Guoxiong, “Maritime Jurisdiction in the Three China Seas: Options for Equitable Settlement,” Working Papers (October 1995), University of California Institute of Global Conflict and Cooperation, p. 6.

¹⁴² *North Sea Continental Shelf, Judgment, I.C.J. Rep.* (1969), p. 22, para.19.

¹⁴³ Decision, para. 104.

¹⁴⁴ Brown E.D., *Sea-bed Energy and Minerals: The International Legal Regime* Volume 1 The Continental Shelf, Maritime Nijhoff Publishers, 1992, p. 96. For detail analysis, see *Limits in the Seas, No. 87, Territorial Sea and Continental Shelf Boundaries: Australia and Papua New Guinea-Indonesia* (US Department of State, 1979). It described the Timor Trough as ‘breaking the continental shelf between Australia and Timor, so that there are two distinct shelves, and not one and the same shelf, separating the two opposite coasts. The fall-back median line between the 2 coasts, provided for

Article 76 (1) within UNCLOS introduced the distance criterion or principle of the continental shelf. The *Libya/Malta* case marked the acceptance of the distance criterion or principle into international law. There the Court established that the distance criterion is the sole basis of title to the seabed and subsoil within the 200-nautical-mile limit¹⁴⁵. These developments, in the Court's view, led to the conclusion that "there is no reason to ascribe any role to geological or geophysical factors within that distance either in verifying the legal title of the States concerned or in proceeding to delimitation as between their claims"¹⁴⁶. However, in the disputes between China and Japan, as the Chinese continental shelf is extended more than 200 nautical miles, the distance criterion or principle which is applied in the *Libya/Malta* is not suitable.

Though the court has refused to admit natural prolongation in the *Libya/Malta* case for such reasons, it has put an emphasis on two opinions relevant to continental shelf delimitation. First, within 200 miles of the coast, natural prolongation is partly defined by the distance from the shore. The concepts of natural prolongation and distance are not opposed to each other but are complementary; and both remain fundamental elements in the juridical concept of the continental shelf¹⁴⁷.

Vice-President Sette-Camara offered his opinion on natural prolongation in relation to the *Libya/Malta* case. He stated as follows:

in the Convention on the absence of agreement, would not apply for there is no common area to delimit...'

¹⁴⁵ It is important to note that the Court's Judgment was significantly influenced by the institution of the EEZ. The Court observed:

Since the rights enjoyed by a State over its continental shelf would also be possessed by it over the sea-bed and subsoil of any EEZ which it might proclaim, one of the relevant circumstances to be taken into account for the delimitation of the continental shelf of a State is the legally permissible extent of the EEZ appertaining to that same State.

¹⁴⁶ ICJ Rep. (1985). at 33, para.33.

¹⁴⁷ *Ibid.*, paras.26-35. According To the *Libya v Malta* case, the court has taken account the natural prolongation at first. The court has rejected the so-called "rift zone" as a delimitation line, as it has considered that "rift zone" has located at the same continental shelf and has not resulted the discontinuing between the shelf.

The natural prolongation doctrine has established in the 1969 *North Sea Continental shelf* judgement is still the main pillar of the conception of continental shelf. Although the original concept of the “species of Platform” has been replaced by a gradually more juridical definition of the continental shelf, natural prolongation remains the basic element of the definition of continental shelf.¹⁴⁸

It should be noted that the court did not refuse to apply natural prolongation within 200 nautical miles. Second, the court recognized that the continental shelf must be effectuated by the application of equitable principles in all the relevant circumstances in order to achieve an equitable result. One of these principles is that there is to be no question of rearranging the geographical configuration of the area in question¹⁴⁹.

Okinawa Trough is not the “rift zone” in the *Libya/Malta* case. According to a Chinese source within this area, the Okinawa Trough proves that the continental shelves of China and Japan are not connected¹⁵⁰. The Chinese position can be supported by the judgment in the *Libya/Malta* case.

If there exists a fundamental discontinuity between the continental shelf area adjacent to one Party and the continental shelf area adjacent to the other, the boundary should lie along the general line of the fundamental discontinuity¹⁵¹.

In this context, Prescott emphasized in his book [that], “Geologically and geomorphologically the continental margin bounded by the Okinawa Trough is Chinese. It stretches seawards from the mainland coast of China and it has been formed mainly by the filling of marginal basins with sediment provided by Chinese

¹⁴⁸ Declaration by Judge El-Khani, “Summary of the Declaration and Opinions Appended to the Judgment of the Court”.

¹⁴⁹ *Ibid.*, para.45-47.

¹⁵⁰ For this information, I am based on an authoritative study of the Professor Zhao Lihai of Beijing University.

¹⁵¹ ICJ Rep. paras.36-41.

rivers”¹⁵². Prescott added that the concept of natural prolongation as set out in the *North Sea* cases by the ICJ is perfectly illustrated by the continental margin of the East China Sea¹⁵³. Moreover, as stated in the *Libya/Malta* case, a principle needed to realize an equitable result is one which provides that there is to be no question of altering the geography of the area. Therefore, without the utilization of natural prolongation, there may stand the question of refashioning geography which may result in inequity in the East China Sea in relation to the Sino-Japan continental shelf delimitation.

In conclusion, either equidistance/special circumstances or natural prolongation can be utilized in the continental shelf delimitation between Japan and China at the East China Sea. The problem is determining which one has the priority in this delimitation dispute. International conventions and case law are unable to answer this question directly. It is argued that the equidistance/special circumstances formula appears to be central to finding a non-inequitable solution,¹⁵⁴ while natural prolongation is essential to the concept of continental shelf¹⁵⁵. Discarding the geographical pattern and geological fact of the natural prolongation of the continental shelf, the appellation of the principle of equidistance will result in inequity. Nevertheless, natural prolongation is insufficient in that it cannot deny the “legal notion of equidistance” a role in continental shelf delimitation. The area of overlapping entitlement will, no doubt, in some way be divided equitably.

¹⁵² Prescott J. & Schofield, C. (2005). *The Maritime Political Boundaries of the World*, London: Methuen & Co. Ltd publisher, p. 439.

¹⁵³ *Ibid.*

¹⁵⁴ Antunes, Nuno Marques. (2003). *Towards the Conceptualisation of Maritime Delimitation*. Boston: Maritime Nijhoff Publish, p. 411.

¹⁵⁵ The Truman Proclamation referred to the continental shelf as an “extension of the land mass of the coastal nation”.

CHAPTER 6

SUMMARY AND CONCLUSIONS

6.1 Summary

A noted author has said that “sitting at a crossroads among politics, law and technical knowledge, maritime delimitation appears as a multi-faceted subject”¹⁵⁶. This dissertation has attempted to advance propositions contributing to the continental shelf delimitation dispute between China and Japan in the East China Sea. Notably, the choice of the dispute-settlement mechanism is not conditioned by reference to the Geneva Conventions and UNCLOS directly; rather the focus attention is on the international law principles of continental shelf delimitation.

Alexy argues that principles should be optimised in relative terms. He states that the ideal precepts “demand more than what is really possible”. If there is a conflict between the principles, it should be resolved by mutual conformation to them, in light of the prevailing circumstances. In each case the principles require is that something be realised to the highest degree possible in relation to what is factually and legally possible. To put it in concise terms, principles are legal parameters whose legal consequence depends on the particular aspects.¹⁵⁷

To begin with the conceptualization of the doctrine of the continental shelf, Chapter 2 describes and explains three decades of evolutionary development of the continental shelf delimitation process. The initial developments, from the preparatory

¹⁵⁶Antunes, Nuno Marques. (2003). *Towards the Conceptualisation of Maritime Delimitation*, Boston: Maritime Nijhoff Publish, p. 411.

¹⁵⁷ Alexy, R. (1999). “My Philosophy of Law: The Institutionalisation of Reason”, in Luc J. Wintgens (eds.) *The Law in Philosophical Perspectives: My Philosophy of Law*, p. 23.

work undertaken by the ILC in the early 1950's to the 1958 Conventions. Alongside the 1958 Conventions, the international case law forms the background for interpretation of UNCLOS 1982. Then, the principal line-defining methods of the continental shelf are introduced.

In Chapter 3, the continental shelf delimitation disputes between China and Japan in the East China Sea was examined. In one of the disputes in the Senkaku/Diaoyu Islands, both China and Japan insist on the ownership of the island. Even if the issue of island ownership were to be settled, there would remain a potential problem that China and Japan apply the different legal principles of maritime boundary delimitation. Japan claims the equidistance principle, while China prefers natural prolongation. This dissertation, it is submitted, has contributed towards a rational choice of the reasonable and equitable maritime boundary delimitation principles in this region.

The principles and adjudications of the continental shelf delimitation Chapter 4 form the essence of this work. Firstly, the work has discussed the interrelationship between the political-legal dimensions of boundary delimitation and the technical definition. Secondly, pursuant to Article 38 (1) of the Statue of the ICJ, the international maritime law principles having the crucial legal status in continental shelf delimitation are discussed. In this work, two principles are examined in the context of relevant landmark cases. They are the principles of equity and equidistance principles. Furthermore, the interrelationships between equidistance and special circumstances; and equidistance and natural prolongation, have been examined. Finally, the interrelations of the equitable and equidistance; equity and reasonableness are observed. The contemporary landmark cases have been discussed contextually in this chapter.

In Chapter 5, the delimitation principles examined in Chapter 4 in the case of Sino-Japanese disputes at the East China Sea, are utilized to arrive at proposed

resolutions to the disputes. It is submitted that either the principles of equidistance/special circumstances or natural prolongation could apply. However, it is difficult to answer which one should be given preferential treatment.

6.2 Conclusions

International law principles are sometimes not entirely suitable for providing concrete answers to concrete cases. Being general principles, they offer broad normative guidance. When two principles are applicable, none is superior. This indicates that they have to be optimized. Such an optimization process should take place through the consideration of three factors, namely, appropriateness, adequacy and proportionality. If equidistance yields a reasonable boundary, little or no adjustment is required. Where the reasonableness of equidistance decreases, the adjustment required to reach a boundary that is not inequitable increases. The emphasis thus shifts to application of the principle of equity.

In the case of the continental shelf dispute between China and Japan in the East China Sea, it is inequitable to apply the equidistance principle without considering special circumstances, such as the Senkaku/Diaoyu Islands, coastline length, and Okinawa Trough. Furthermore, it is not desirable that to use the equidistance/special circumstances and natural prolongation principles be used in an incompatible manner. It is advisable to combine these two principles to realize an acceptable and equitable continental delimitation line between the two countries.

In conclusion, it must be born in mind that maritime boundary issues are heavily influenced by political considerations. Delimitation is largely a political act. That is why diplomatic negotiation is the most frequently used dispute settlement mechanism. The maritime boundary delimitation dispute between China and Japan are no exception to the notion of settlement by negotiation. That is in the best interest of both states.

APPENDIX

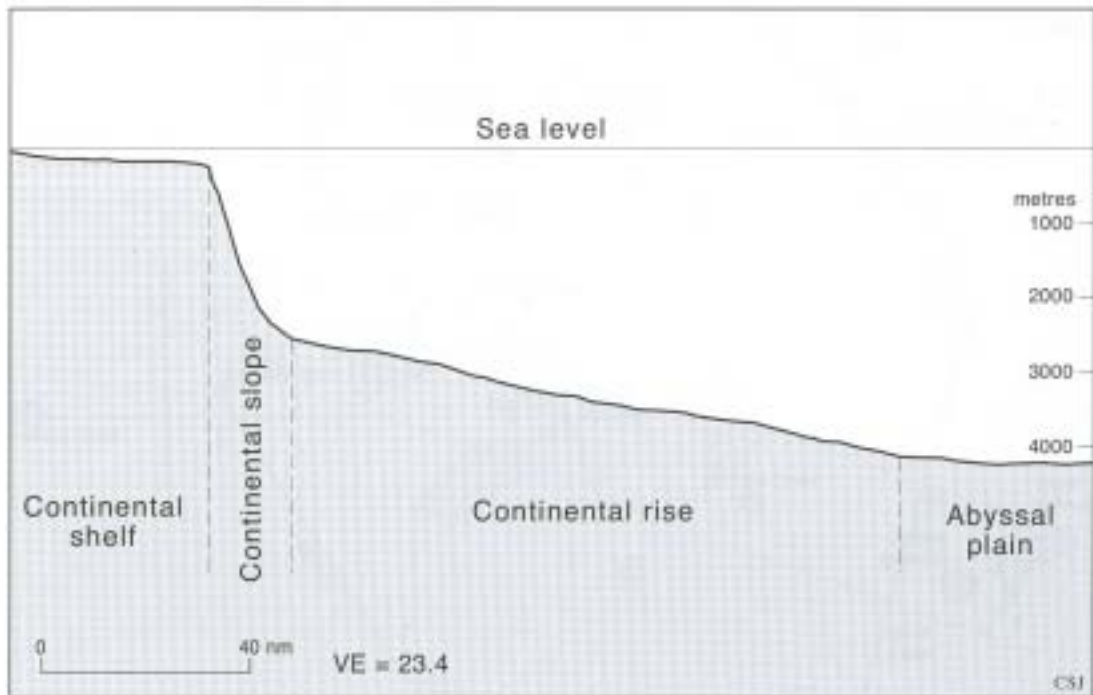


Figure 1 Continental margin

Source: Prescott J.R.V. (2005), *The Maritime Political Boundaries of the World* London: Methuen & Co. Ltd publisher. p. 570.

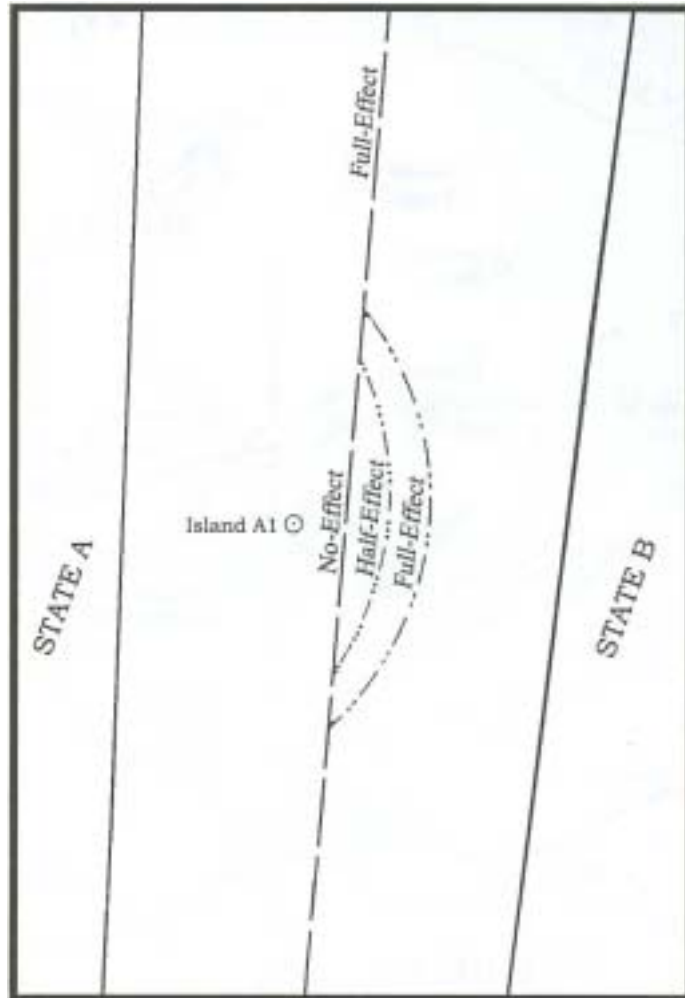


Figure 2 Half-effect of islands: opposite coasts

Source: Beazley, Peter B. (1979) "Half-Effect Applied to Equidistance Lines", in *International Hydrographic Review*, Volume LVI (1), p. 154.

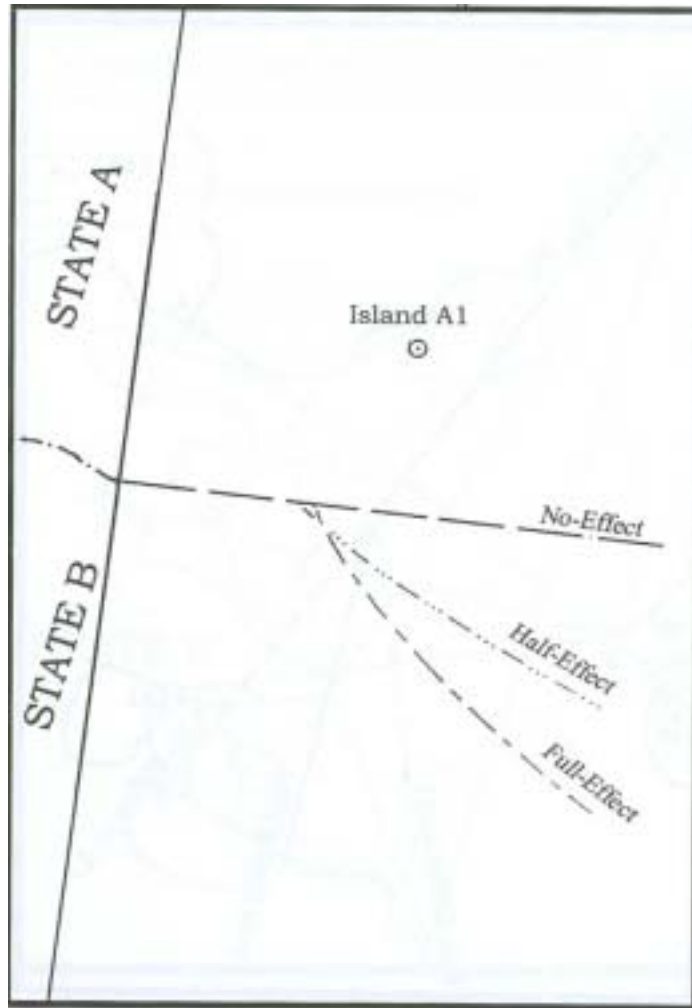


Figure 3 Half-effect of islands: adjacent coasts

Source: Beazley, Peter B. (1979) "Half-Effect Applied to Equidistance Lines", in *International Hydrographic Review*, Volume LVI (1), p. 157.

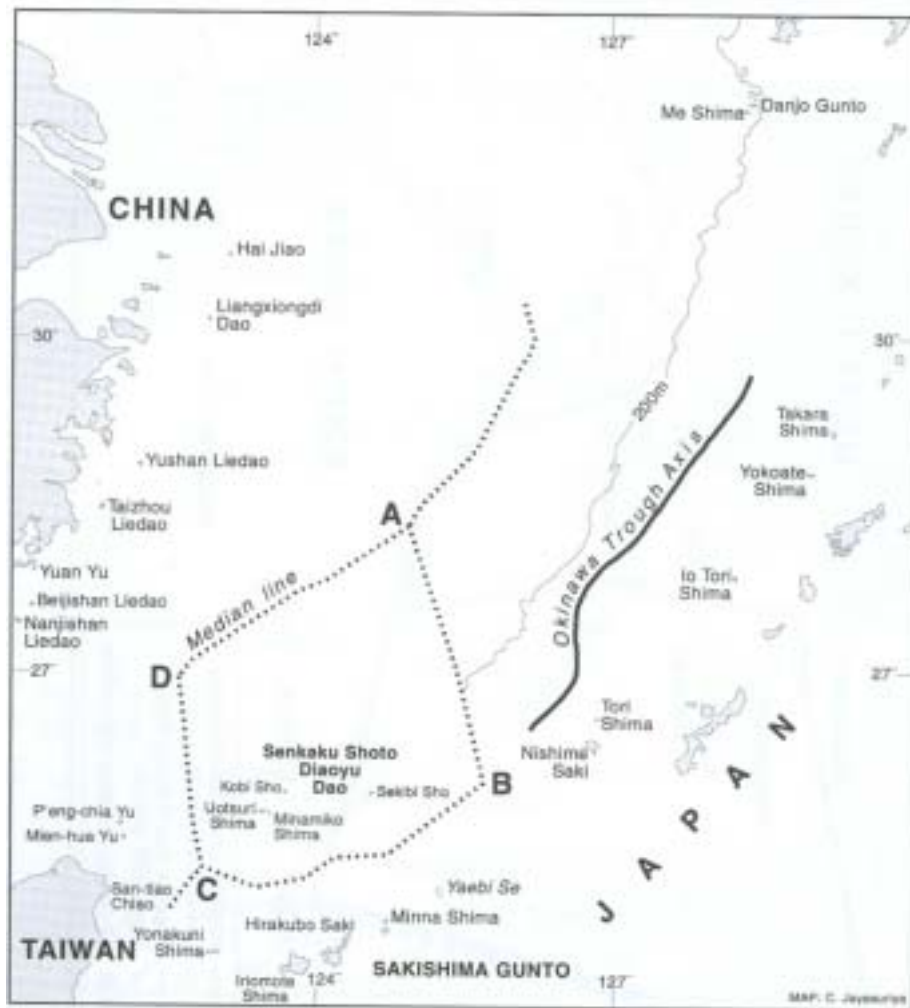


Figure 4 China-Japan

Source: Prescott J.R.V. (2005), *The Maritime Political Boundaries of the World* London: Methuen & Co. Ltd publisher. p. 627.



Figure 5 Maritime boundary delimitation in the aftermath of the North Sea Continental Shelf cases of 1969

Source: Antunes, N. S. M. (2001). Understanding charts, coordinates and datums : vertical/tidal datums, unpublished presentation given at workshop on *An Introduction to Technical Aspects of Maritime Boundary Delimitation*, International Boundaries Research Unit, Durham, 25-26 July. p. 21.

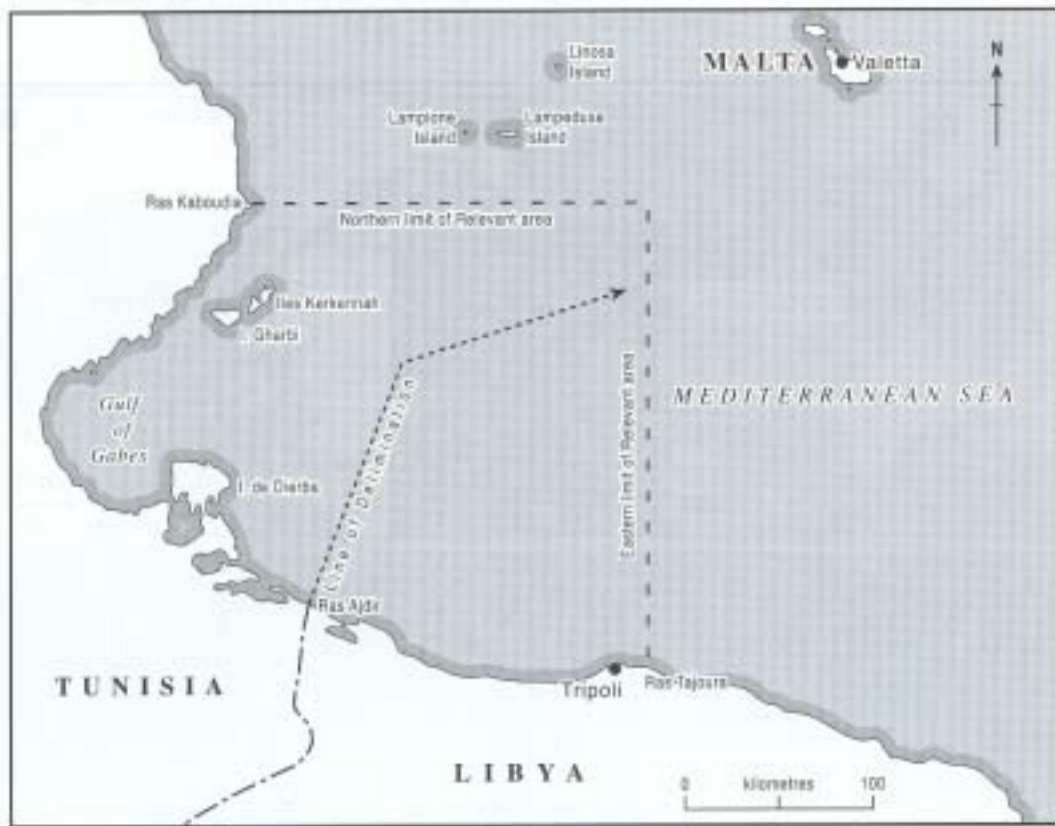


Figure 6 The maritime boundary between Libya and Tunisia

Source: Beazley, Peter B. (1979) "Half-Effect Applied to Equidistance Lines", in *International Hydrographic Review*, Volume LVI (1), p. 158.

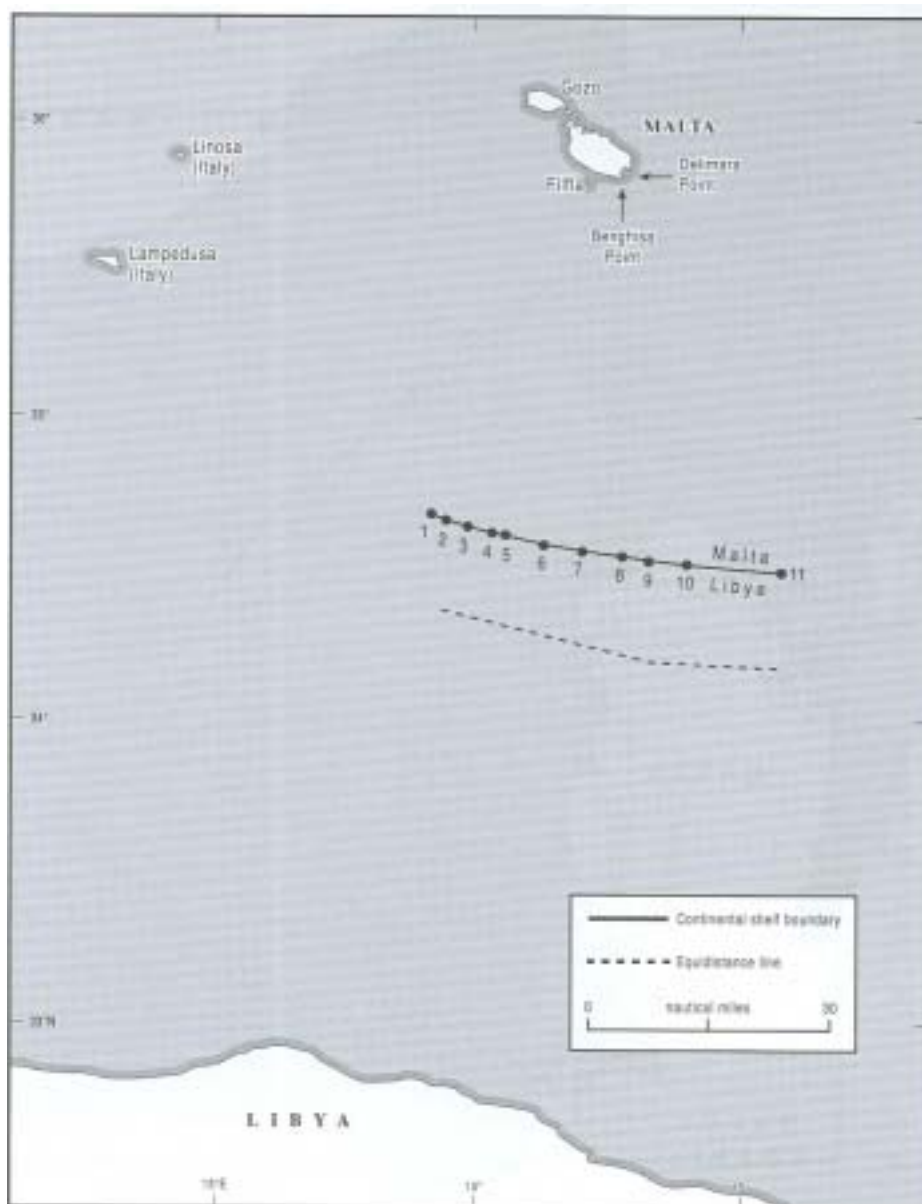


Figure 7 The Malta-Libya continental shelf boundary

Source: Carleton, C.M. (1990). The role of the territorial waters officer and the problems associated with the delimitation of the UK continental shelf, in C.E.R. Grundy-Warr, ed., *international boundaries and boundary conflict resolution*, Durham: IBRU. p. 16.

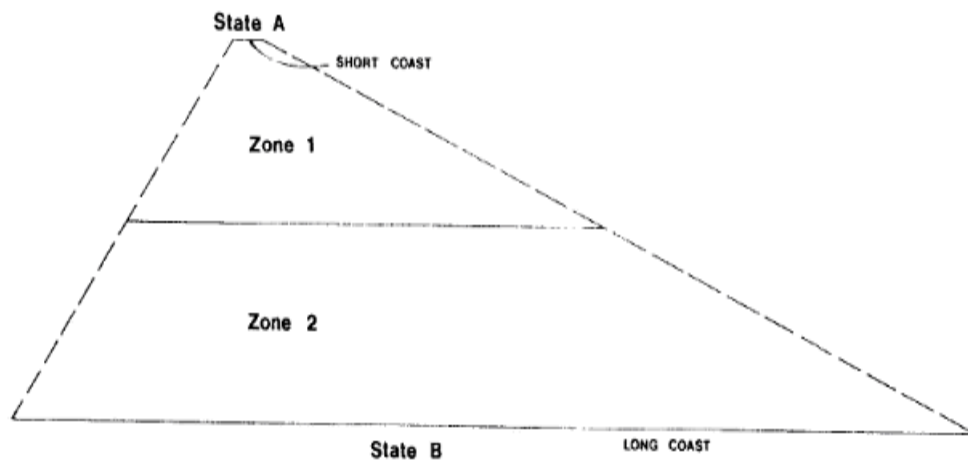


Figure 8 Zone 1 +Zone 2: Areas of overlapping natural prolongations, as between States A and B

Sources: Yoshifumi T., (2001). "Reflections on the Concept of Proportionality on the Law of Maritime Delimitation", *The International Journal of Maritime and Coastal Law*, Vol 16, No 3, p. 442.

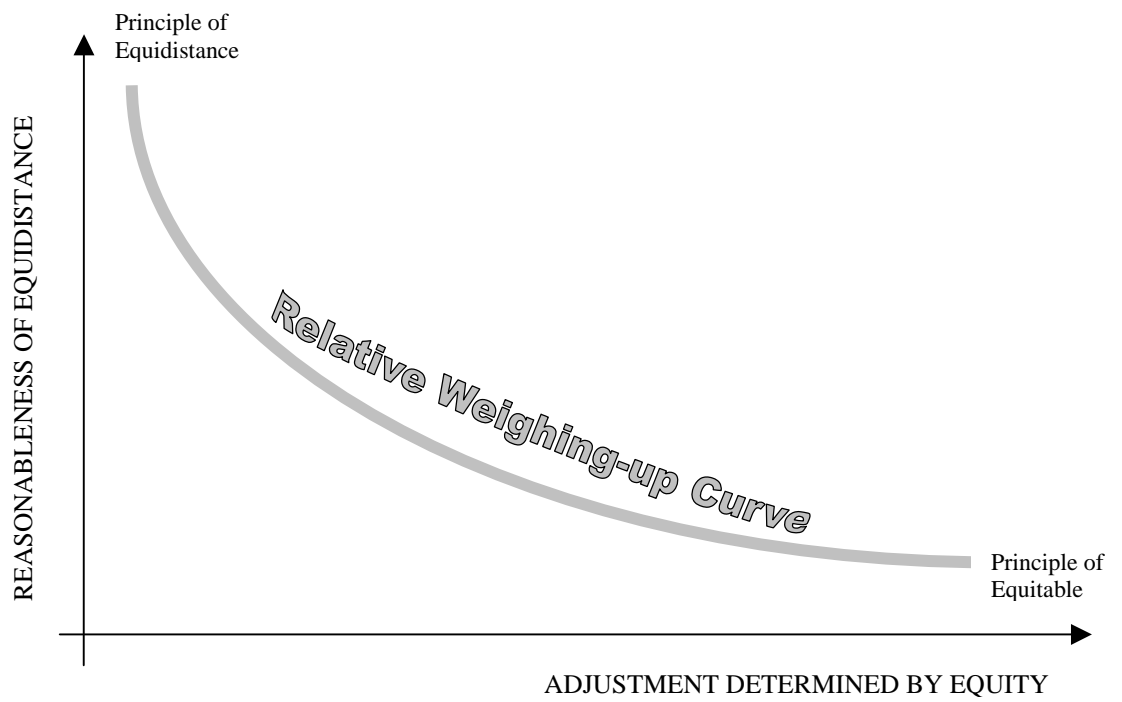


Figure 9 Principle of Equidistance vs. principle of equity

Source: Antunes, N. M. (2003), *Towards the Conceptualisation of Maritime Delimitation*, Boston: Maritime Nijhoff Publish. p. 244.

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