# THE CONTINENTAL SHELF 1910-1945

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The problem of the progressive development of public international maritime law to take into account the "discovery" of the geographic entity called the continental shelf was formally introduced into international affairs with the issuance of the Truman *Proclamation Concerning the Policy of the United States with respect to the Natural Resources of the subsoil and Sea Bed of the Continental Shelf* on 28th September, 1945.[1] This act, the accompanying United States coastal fisheries proclamation of the same date, and the subsequent state practice of some twenty-four nations have raised very important issues in the law of maritime spaces. Not only was there a need for a legal regime to provide for the turning to account of the natural resources of the sea-bed and subsoil of the shelf, but also the classic and almost axiomatic principle of the freedom of the high seas and the troubled questions of the breadth of the territorial sea and of special rights for the coastal state in the fisheries beyond were brought to the fore. For practical purposes, these matters became and were treated as inter-related.

There has been much state practice, offiicial policy statements, doctrinal dissertations, and studies by professional bodies. The formulation of solutions to these problems comes to fruition under the auspices of the *UN*. They form a major area of discussion at the general international conference on the law of the sea opening in Geneva, February, 1958. Events in this field since 1945 have been discussed at considerable length in the literature of public international maritime law. The preliminaries to the introduction of the continental shelf into state practice prior to 1945 are important to an understanding of the course of subsequent state practice and the work of the conference. It is the purpose of this article to supply a reasonably full systematic historical survey to fill this need.

The continental shelf, referred to herein after as the shelf, is subsoil of the submarine areas contiguous to the coast extending to where the continental slope begins, approximately at the 100 fathom or 200 metre isobaths. There, the more or less gentle descent of the shelf changes to a more abrupt angle and falls off to the ocean depths.

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[1] 59 *US Stat. at Large* (1945), p. 884; and 1 *Laws and Regulations on the Regime of the High Seas*, UN Legislative Series (1951) (herein called *"UN High Seas Laws"*), pp. 38-9.

The shelf was first thought of about the turn of the twentieth century as the essential basis and limit of the important commercial coastal fisheries, indeed, the *conditio sine qua non* of their existence.

Smaller fishing nations were then becoming discontented with the pressure of foreign long distance trawling vessels off their coasts and consequently with the narrow traditional three-mile limit of the exclusive coastal fishery. These facts together with the physical continuity of the continental shelf with the adjacent emergent national land mass encouraged their aspirations to exclusive rights in the *demersal* or bottom free swimming species found in coastal waters above the shelf. The shelf, therefore, made its earliest appearance in international affairs through *indirect* employment in support of claims concerning the fisheries in superjacent waters, or simply to the waters above, including by implication also the fisheries.[2]

The legal concept of the shelf introduced in the 1945 Truman proclamation was, however, based on *direct* interest in the geographical entity itself because of its natural resources. It excluded the superjacent waters. It is the basis of the currently evolving legal doctrine of the continental shelf. The *indirect* fisheries interest, however, came first in point of time.

Portugal in 1910 prohibited trawling by steam vessels within the limit of the shelf as defined by the 100 fathom isobath, or within a minimum of three miles from the coast.[3] It was concerned with the depletion of fisheries resources above the narrow Portuguese shelf. The act marked the official introduction of the shelf into state practice. It was apparently used as both measure and basis of a claim of jurisdiction over trawl fishing. The shelf was said to be the birthplace and nursery of the young fish from which came the supply of fully developed fish found in waters deeper than 100 fathoms. The destructive effect of the trawl on the bottom environment near and on the bed of the shelf was implied the cause of concern.

Steam trawlers would be permitted to operate freely beyond the 100 fathom isobath. Restrictions applied within it. The decree would appear to imply its limited application to Portuguese trawlers only, although it would doubtless have been desired to apply it to foreign vessels. No record is available of any attempt to make it effective internationally.[4]

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[2]Gilbert Gidel noted the first contacts of the notion of the shelf with law were in connection with the fisheries. But its appearance in this particular field, as opposed to that of mineral resources of the subsoil, was said sufficiently discreet for the paternity of its introduction to cause uncertainty (*La plataforma continental ante el derecho,* Valladolid (1951), (hereafter called *"PC"*), pp. 29-30).

[3]*Decree Regulating Fishing by Steam Vessels,* 9th November, 1910, 2 *Colecao Oficial de Legislacao Portuguesa* (1910), p. 76; and *UN High Seas Laws,* pp. 19-21.

[4]Fulton wrote about the time of the decree that British fishermen trawled where Spanish and Portuguese fishermen were prohibited by their own laws. Although the local fishermen strongly objected to their presence within waters where they were themselves prohibited to trawl and it was stated that negotiations on the matter had taken

The act was significant as providing for 1) a type of coastal fisheries jurisdiction beyond the territorial sea based on the presence of a subjacent shelf, and 2) delimitation of this zone by the 100 fathom isobath, evidently intended as the definition of the shelf. The shelf had, however, not apparently then been thought to provide sufficient justification for a claim of right valid against foreign states. Thus in its first appearance the shelf had a limited municipal role only.

In 1918 Odon de Buen, later Spanish Director-General of Fisheries, urged the necessity of extending the territorial sea to include the whole of the shelf.[5] The basis of de Buen's interest in the shelf, the superjacent fisheries, and its application were similar to those of the Portuguese decree of 1910, save as to the international legal nature of the right suggested. The probable intention was the appropriation of the shelf fisheries. In 1910 the object was the ostensible preservation of the fishery for mature fish by protecting the breeding grounds of the young. The 1918 suggestion thus went a step further by advocating use by the shelf to attain exclusive economic advantage.

De Buen would also have appropriated incidentally the subjacent physical shelf, not apparently from any real immediate interest in its resources, but on the chauvinistic ground that it was "land of our land, a submerged part of our territory".

The origins of the employment of the shelf in the fisheries or *indirect* context were Spanish and Portuguese. Interest and official action based on this fisheries employment subsequently mainly shifted to Latin America. The traditional connnection and inter-change of ideas between the two regions doubtless facilitated this transfer.

Suggestion of the continental shelf as limit for the territorial sea was probably also, in part, a response to the renewed search for a suitable objective criterion to fix such limit. President Jefferson of the United States, in 1805, for example, suggested that limits of neutral waters be extended to the edge of the Gulf Stream adjacent to the United States as a "natural frontier".[6] Valin in 1760 suggested that the limit of the maritime belt be fixed at the point where a sounding lead and line ceased to touch bottom.[7] Sir Thomas Barclay, in 1894, noted a suggestion that the territorial sea should have a general minimum extent of three miles, and, where the depth of water so indicated, should extend beyond to

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place between London and Lisbon, they had not been ordered out: (Fulton, T. W. *Sovereignty of the Seas,* Edinburg (1911), p. 667). Successful protests were made during the earlier part of the present century by Britain against attempts by Portugal to extend its exclusive fishery rights beyond the three-mile limit.

[5]Azcarraga, J. L. de, *La plataforma Submarina y el Derecho Internacional,* Madrid (1952), p. 137.

[6]Gidel, Gilbert, *Le Droit International Public de la Mer,* Paris (1932), III, p. 48; and see Masterson, *Jurisdiction in Marginal Seas* (1929), p. 254.

[7]*Ibid,* p. 128. Gidel commented that Valin spoke of the "natural boundaries of the domain of the sea".

a maximum limit determined by the seven fathom isobath. It was suggested that this system was justified by the obligation of the coastal state to buoy non-uncovering dangers to navigation.[8]

Gidel reflected, in 1933, whether it would not be possible to find certain constant natural elements which would permit the tracing of limits of territorial waters by states freely fixing their own limits. Facts taken from hydrographic configurations had at times been considered.[9] With the failure of the traditional "philosophical formula" for the three-mile extent of the territorial sea, i.e., the range of cannon shot, considerations of this nature became of actual importance. Propositions similar to those of Valin, Madison and Sir Thomas, based on physical constants of a geographic-hydrographic-oceanographic nature, took on a new actuality. Knowledge of the shelf and of its importance for the coastal fisheries stimulated thought on the possibilities of the adoption of the outer shelf edge as limit, as suggested by de Buen.

In 1916 and 1918, two Argentine jurists, Storni and Suarez, seized on the importance of the shelf to the principal commercial fisheries and recommended that the adjacent state assert jurisdiction over the *epicontinental sea,* i.e., the waters above the shelf, to obtain control of these fisheries.[10]

The thinking of the "Argentine School" on these matters is important. In large measure it helped create the favourable attitude of a number of Latin American nations towards the indirect use of the shelf for fisheries purposes, as in the Argentine claim to the sovereignty of the adjacent epicontinental sea in 1946. Joinder of the questions of coastal fisheries conservation and exclusive appropriation with that of the limit of the territorial sea, and the basing of both on the shelf was characteristic of this school. This influence was evident in preparations for the *Hague Codification Conference of 1930.* Suarez, who acted as a subcommittee of one on the question of the exploitation of the resources of the sea, suggested on 6th April, 1925, that a special technical conference be convened, to draw up immediately, without regard to the three-mile limit, uniform regulations for the exploitation of the industries of the sea over the whole extent of the ocean bed forming part of the shelf, defined as the region along the coasts where the depth did not exceed 200 metres.[11] The existing legal tech-

[8]*Ibid,* p. 129. Meeting of the *Institut de Droit International,* Paris, 1894.

[9]*Ibid,* p .128.

[10]Storni, S. R., *Intereses argentinos en el mar,* Buenos Aires (1916), p. 38; and Suarez, J. L., *Diplomacia Universitaria Americana,* Buenos Aires (1918), pp. 155-8. See also Gidel, *op. cit.,* III, pp. 130-1.

[11]Suarez, J. L., *Report on the Exploitation of the Products of the Sea,* 20 AJIL (1926)), Spec. Supp., p. 231. The committee of experts did not accept this recommendation. Suarez held the result of international regulation had been the useful, but by no means sufficient, one of delaying but not preventing the extinction of some of the principal species (p. 232).

This disagreement as to the efficacy of international fishery agreements continues to the present day and is a fundamental point in understanding the support for the con-

nique of the fishery treaty was rejected as inadequate for the preservation of the fisheries from extinction and for the taking into account of biological, economic and general considerations.

Luciano H. Valette, then chief of the Fisheries Department of the Argentine Ministry of Agriculture, was cited as stating on Suarez' 200 metre isobath jurisdiction proposal that nonetheless he hoped, even if the European members of the committee at Geneva failed to realize its urgency, *it would triumph in the narrower but more congenial sphere of American interests.*[12] Valette's remark aids in understanding the current practice of a majority of the Latin American nations who have sought, as a desirable maximum, regional adoption of a right of sovereignty over the epicontinental sea or the 200-mile maritime sovereignty belt. It was not then by accidental or sudden decision that the Argentine, in 1946, was the first state to claim a right of sovereignty over both shelf and superjacent seas.

The chronologically second employ of the shelf in state practice came in an Imperial Russian pronouncement of 29th September, 1916. Allied and friendly powers were notified that certain specific islands and "others situated near the Asiatic coast of the Empire (are considered) an extension towards the north of the Siberian continental platform". Soviet Russia reaffirmed this claim on 4th November, 1924, holding the islands formed "the northern continuation of the Siberian continental plateau".[13] Later Soviet claims, however, relied on the "sector theory" instead.[14] The words *continental plateau or platform* were used in 1916 and 1924 by the Russians in a different sense and for a different purpose than in earlier fisheries jurisdiction and territorial sea contexts.[15] This

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cept of the indirect fisheries use of the shelf. The views of some Latin Americans on this matter would not appear to have changed a great deal since Storni's proposition in 1916 despite continued evolution and growth of the fisheries treaty as an instrument to effectively foster conservation of the fisheries concerned, and the large increase in the numbers of such agreements and of the countries participating therein. Attention has thereby been focussed more on appropriation considerations and away from conservation as motivation for the concern of these countries in the fisheries of the high seas above the shelf.

[12]*Ibid,* pp. 233-4 (my italics).

[13]Lakhtine, V. L., *Rights over the Arctic Regions,* Moscow (1928); and see also Lakhtine, *Rights over the Arctic,* 24 AJIL (1930), pp. 703-17. Lord Asquith in the *Abu Dhabi Arbitration Award* of 1951 concerning rights to Persian Gulf offshore areas of the Sheikdom of Abu Dhabi remarked in this regard in a footnote that the shelf made a fleeting appearance on the legal stage in 1916 but passed over it with "printless feet" (3 ILQ (1952) ). See also: *The Continental Shelf and the Abu Dhabi Award,* (1953), McGill L. J. 109.

[14]Lakhtine, *Rights over the Arctic, op. cit.,* p. 709; and Cooper, J.C., *Airspace Rights over the Arctic,* 3 Air Affairs (1950), p. 10.

[15]It has been suggested, it may be noted incidentally, that the shelf claims of the Argentine and Chile had such a secondary objective in mind, i.e., to reinforce their respective territorial claims to the Falkland Islands, and Antarctic zones, by use of notions of morphological and geological continuity and the claim of the superjacent seas above which would further link the mainland to the Islands and Antarctic zones.

usage of the shelf must be examined in relation to grounds allegedly creative of title to territory, particularly, to the *hinterland, watershed, sector,* and other similar notions based on geographic contiguity. Original acquisition of territory is essentially founded on discovery and effective occupation.

Special propositions have been used at times to support claims of right to territory over which there was only minimal, if any, effective occupation, but which was geographically contiguous to a zone which had been effectively subjected to territorial sovereignty. Oppenheim rejected these "fanciful assertions" as having no legal basis.[16] In the above Russian acts the mere fact of the islands being on the Siberian platform was apparently intended to result *ipso jure* in a vesting of sovereignty, without the necessity of "discovery" completed by "effective occupation". The more general "sector theory", of Canadian origin, later substituted, was essentially similar in principle to this platform-based claim.

The reasoning apparent behind the "platform" type claim would appear to have been impliedly rejected in the decision in the *Minquiers and Ecrehos Case* of 1953 between France and Britain. A French view very similar to that expressed in the Russian acts was entirely iguored. Judge Levi Carneiro, of the International Court of Justice, in an individual opinion commented: "The union of the islands with the Continent is a geological hypothesis having no further consequences."[17]

The Russian employ was a *sui generis* notion, the second in state practice, chronologically speaking, concerning the shelf.[18] It would appear clearly contrary to existing law. This use appeared next incidentally in state practice in negative form in confirmation of the existing law in the 1942 acts concerning the submarine areas of the Gulf of Paria examined later.

Attention continued in this early period to be focused on the relationship between the coastal fisheries and the shelf. Admiral Almeida d'Eca of Portugal wrote in 1921:

> "The outer limit of the territorial waters, as now recognized, does not, however, coincide with the greatest depth at which edible species of fish are to be found. For the edible fish the barrier is the drop from the continental shelf; they are not to be found beyond this line."[19]

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[16]*International Law,* London, 7th ed. (1948), I, p. 512; and see *Island of Palmas Arbitration, Reports of International Arbitral Awards,* II, 829; and 22 A.J.I.L. (1928), p. 867. The Arbitrator insisted on discovery and effective occupation. They are the *sine qua non* of original legal title to territory.

[17](1953) *ICJ Reports,* p. 99.

[18]For discussion of the Russian declarations see: Mouton, M. W., *The Continental Shelf,* The Hague (1952), pp. 240-1; François, J. P. A., *Report on the High Seas,* UN Doc A/CN.4/17, 17th March, 1950, p. 34; Azcarraga, *op. cit.,* pp. 93-6; Waldock, C. H. M., *The Legal Basis of Claims to the Continental Shelf,* Grotius Society Transactions (1950), p. 121; Lauterpacht, H., *Sovereignty over Submarine Areas,* 27 BYBIL (1950), p. 427; and Gidel, *PC,* p. 34.

[19]From a memorandum to the *Seventh International Fishery Congress,* as cited by the Portuguese jurist de Magalhæs in his observations on the Schucking report to the committee of experts (20 A.J.I.L. (1926), Spec. Supp., pp. 127-9).

He called for an extension of jurisdiction to the edge of the shelf because "by this method alone each country can really ensure the protection of the species". Professor Barbosa de Magelhæs, later chairman of the maritime law committee at the *First Hispano-Luso-American Congress of International Law* held in Madrid, in 1951, where this point of view received sympathetic attention, when discussing the Schucking report to the committee of experts preparing for the *Hague Codification Conference of 1930,* repeated the views of d'Eca, and elaborated on the especial productivity of waters above narrow shelves, concluding, that the narrower the shelf the greater the concentration of the fish population and thus that fishing was more sought after on narrow shelves.[20] He undoubtedly desired to stress the urgency of the special problems of the Iberian coastal fishery, in local opinion.

At the 1930 codification conference, Portugal advocated extending the territorial sea, and suggested 12, 15 or 18 miles as alternative limits, without mentioning the shelf limit. These would probably have largely accomplished the same desired result, in view of the narrowness of the shelf, of bringing adjacent coastal fisheries within Portuguese jurisdiction.

Gidel, discussing the reasons for the claims of various nations to different widths of territorial sea, observed, in 1933, that countries in whose neighbourhood the shelf, i.e., the place where the edible species of the marine fauna were claimed to gather, the ocean botton to a depth of 200 metres, was narrow, and that they would be tempted to make their territorial sea coincide as much as possible with the shelf.[21]

A special implied application of the shelf was made by Ceylon in 1925. The *Pearl Fisheries Ordinance* of 1925 provided for the exclusive control by Ceylon of the adjacent pearl fisheries within a defined area based in large part on the 100 fathoms isobath. The boundary followed the 100-fathom line for a distance of some 45 to 50 nautical miles.[22] The ordinance is still in effect. It clearly constituted a claim to at least part of the natural resources of the sea-bed, if not to the sea-bed itself, of that part of the adjacent shelf defined. Certain of the sedentary fisheries have recently been included within the general scope of the natural resources of the shelf by a number of authorities, chiefly including the

[20] *Ibid.* Modern fishery biology would not likely support these conclusions.

[21] *Op. cit.,* III, p. 142. He commented that the shelf was one of the political, military, geographic or economic factors which arose in the question of a limit for the territorial sea to give great diversity to the conceptions of the different nations on the question and to make the opposition of views very sharp.

[22] *Laws of Ceylon,* 1938 Revision, c.169. Part I of the First Schedule delimited the area in the manner mentioned in the text above. Its inner limit was the 3 or the 5 fathom line, varying from place to place.

The Ceylonese representative on the Sixth Committee of the General Assembly of the *UN* acknowledged on 12th December, 1956, the reference to the shelf in the 1925 Act stating "The Ceylonese Government had referred to it indirectly in 1925 in its pearl fisheries ordinance" (UN Doc A/C.6/S.R. 496, p. 89).

International Law Commission of the *UN*, in 1953. This policy has been disputed, particularly by Japan, and is one of the important controversial points in the legal concept of the shelf involving direct interests in its sea-bed and subsoil.

The 1925 ordinance marked a partial shift of interest from the free-swimming fisheries of the sea above to resources more closely identified with the shelf itself. It should not, however, be regarded as a precedent for claims based on direct interest in the shelf or its mineral resources. The 100 fathom isobath was probably adopted by Ceylon for reasons of convenience as a definition of the outer limit of a pre-existing claim based on entirely different considerations than those inherent in the new shelf concept. Nevertheless the ordinance was disinterested testimony of the utility of a chief feature of the continental shelf, a geographic isobath assigned as its more or less well-defined natural outer limit.

Perhaps the earliest published study of the problems posed by the then just apparent mineral resource potential of the sea-bed and subsoil of the shelf was by Cuban Jurist, Dr. Miguel Ruelas, in 1930. He foresaw the possibility of the discovery of oil in the shelf and sought to justify its claim by the adjacent state on grounds of physical connection.[23] The shelf was to be linked to the adjacent nation for purposes of appropriation of its natural resources, a most significant development. Hitherto, the indirect fisheries application of the shelf had predominated almost completely.

The chronological order of the three concepts' importance as effective legal concepts has been reversed. The earliest employ, the indirect fisheries interest, in 1958 ranks second in intensity of interests, and is clearly contrary to existing law, and the second employ chronologically, the territoriality of emergent islands situated on the adjacent shelf, receives virtually no support, and is also contrary to existing law. The third notion chronologically, that of direct interest in the shelf itself for the sake of its resources, and of the consequent need for appropriation of some form of jurisdiction, slowly gained ground as the economic possibilities became known and technology developed. It is today the most important of the three and the only one given general recognition.

During the preliminary period prior to 1945, however, there was no thought out differentiation of the three interests and the legal notions based on them, and no analysis of consequent legal problems. With the emergence by 1930 of the three notions of the utility of the shelf, however, all of the principal ingredients of the post 1945 controversy over the development of a determinate legal doctrine of the shelf had come into being. Events, legislation and writings after 1930 amplified and made firm the questions at issue and prepared the way for the

[23] *La Cornisa Continental Territorial*, IX Revista de Derecho International, Havana, t.XVII (1930). Ruelas apparently invoked the sedimentation theory of the creation of the shelf as the basis of the right of the coastal state. Running water was said to have carried from the adjacent land territory the deposits constituting the shelf. Thus reasons of equity and physical identity were suggested to create legal title.

heavy spate of post Second World War state practice. The nature of some of the problems which would arise was early evident.

The Department of State was asked in 1918 by United States citizens interested in obtaining oil rights 40 miles off-shore in the Gulf of Mexico, whether it was possible to acquire property or leasehold rights which would be protected by the United States. It was contemplated that an artificial island would be erected to exploit sub-sea oil. The State Department replied "the United States has no jurisdiction over the ocean bottom of the Gulf of Mexico beyond the territorial waters adjacent to the coast... it does not appear possible for the United States to grant to you the leasehold or other property rights in the ocean bottom which you desire".[24]

Positive interest in shelf resources developed early in the United States. For this reason, the contribution of this State to the initiation and the process of growth of the shelf notion based on direct interest in its resources is pre-eminent. Official scientific and economic interest in the shelf was first evidenced in the United States, in 1927, in a report of Dr. David White of the Geological Survey. He suggested that the topography of the entire bottom of the submerged continental shelf be surveyed by the then newly developed methods of sonic sounding, and directed attention to the fact that even out to 35 miles from the coast depths greater than 60 feet were rare and that in parts of the belt the water was not over 25 feet deep.[25]

Two draft bills put before the United States Congress in the mid-nineteen thirties figure prominently in the legal history of the continental Shelf. They exemplify the indirect interest of a fisheries orientation. Delegate Dimond and Senator Copeland, in 1937 and 1938, introduced Bills H.R.8344 and S.3744 in the House and Senate, respectively. Both bills arose out of a controversy between the United States and Japan over the Alaskan salmon fisheries of Bristol Bay. Neither bill was enacted. A *modus vivendi* between the parties settled the matter temporarily. The intended definitive post-war solution of the matter was

[24]Hackworth, *Digest of International Law,* II (1941). p. 680. Both Waldock and Lauterpacht referred to this enquiry (*op. cit.,* pp. 119 and 400, respectively). The State Department further commented that unless the creation of an artificial island interfered with the rights of the United States or of its citizens, or formed the subject matter of a foreign complaint, it would not be likely that any foreign government would interfere with the plan unless its rights or those of its citizens were harmfully affected. If the island was created, the United States, it was said, might possibly exercise some control over it.

[25]Wrather, W. E., Director of the Geological Survey, June, 1945, *Statement, Hearings,* Special Committee Investigating Petroleum Resources, United States Senate, 1945, 79th Congress, 1st Session, *pursuant to S. Res. 36, a resolution providing for an investigation with respect to petroleum resources in relation to the national welfare* (hereafter called *"Special Senate Petroleum Hearings, 1945"*), pp. 360 *et seq.*

contained in the Truman coastal fisheries proclamation of 1945, in which the shelf did not figure.[26]

The Dimond Bill provided for a special extension of jurisdiction for purposes of protecting the salmon fishery to four leagues generally and, in addition, to all waters adjacent to the Alaskan coast as far as the 100-fathom isobath, which might be proclaimed by the President to be "salmon fishery law-enforcement areas". The term "continental shelf" was not used. It was apparently impliedly invoked by use of the 100-fathom isobath.[27]

The term "continental shelf" was used in the Copeland Bill entitled *A Bill to Assert the Jurisdiction of the United States over Certain Portions of the Bering Sea and the Submerged Land Thereunder.* It was passed by the Senate on 5th May, 1938, but its enactment was not completed. Copeland held that the shallow depths of the Bering Sea must be regarded as a slightly submerged margin of the American continent. Geologists were said to have concluded that this part of the Bering Sea did not partake of the qualities of a true ocean basin. The "continental shelf" was said to be only another of the several old Alaska beach deposits. It would appear to have been intended to establish the factual and thus the legal similitude of emergent Alaskan territory and shelf. This explanation was somewhat similar to Ruelas' sedimentation theory. The need for protection of both mineral deposits, and fisheries and animal life in the shelf zone was recited.

Jurisdiction of the United States would, under the bill, have extended to all the waters and submerged land adjacent to Alaska and lying within the limits of the shelf, whose edge was said to have a depth of water of one hundred fathoms, more or less. All laws applicable to the Alaskan fisheries would have applied in the waters above. Vessels of the United States would have been authorized to board and bring to port any vessel found breaking such laws within the waters claimed.[28] As in the two separate 1945 United States shelf and coastal fisheries proclamations, the right claimed was not sovereignty, but *jurisdiction,* presumably exclusive in nature and including appropriation of re-

[26]Presidential Proclamation No 2668, *Concerning the Policy of the United States with respect to Coastal Fisheries in Certain Areas of the High Seas,* 28th September, 1945, 59 *Stats at Large* (1945), p. 885; and *UN High Seas Laws,* pp. 112-3. Waldock subsequently commented that the proclamation had affinities with the Dimond Bill and the *Anti-Smuggling Act, 1935,* in that it was to be exercised not in a contiguous belt along the whole length of the United States' coasts but in particular areas where United States interests are conceived threatened (*op. cit.,* p. 126).

[27]Jessup, P. C., *Pacific Coast Fisheries,* 33 AJIL (1939), p. 129. The Dimond Bill was said based on the view that the United States had a property right in salmon spawned and hatched in internal Alaskan waters.

[28]Jessup, *op. cit.,* p. 129. He cited Gidel on the general question of the failure to distinguish the two separate aspects of the fishery problem: i) whether the zone in which the state had a fishing monopoly should be augmented, and ii) whether a state should be given the right to enforce on the high seas measures of conservation designed to prevent exhaustion of the supply of fish. Jessup inferred, and it is evident, that the former right was intended to be claimed.

sources. The exact legal classification of the claim intended in the existing law of maritime spaces was not clearly apparent. The primary orientation of interest in the shelf was the fisheries, although the resources of the shelf itself were also dealt with.

Neither bill became law. Jessup pointed out, in 1939, that they would infringe on the freedom of the high seas, particularly as to exclusion of aliens from fishing and as to the extent of national jurisdiction outside territorial waters for the protection of coastal state vital interests. He held that the legal theory of the shelf, which appeared in the Copeland Bill, based on the shelf's indirect employ for fisheries purposes through claims to superjacent waters, would probably not have been defended by the United States in an international controversy.[29] Mouton held that the bills were important as primitive forerunners of the two 1945 United States shelf and coastal fisheries proclamations.[30] This would appear to be a generally correct conclusion. The solutions proposed in the bills were, however, in very important particulars, rejected in 1945.

A significant feature of the proposed Copeland legislation was the combining of the two principal employs of the shelf, indirect in respect of the fisheries of the seas above, and direct in respect of its resources, in the same act. This combined or "omnibus" approach was discarded in the two 1945 United States proclamations in favour of two separate legal devices, a concept of rights in the resources of the sea-bed and subsoil based on the shelf, and a fisheries conservation jurisdiction independent of the shelf. Considerations arising out of the regime of freedom of the high seas were doubtless the cause of this separation. After 1938 legal interest of the international community in the shelf shifted from the fisheries to the subjacent mineral resources. The former interest, however, continued to exert its influence upon a substantial number of governments.

The distingnishing of the two main employments of the shelf one from the other and their separate legal treatment were inevitable once the different nature of the state of the law and the national interests involved in each case became better appreciated. The two were early legal bedfellows only by almost simultaneous accidents of economic need, science and technology. The dis-

[29] *Op. cit.*, p. 131. He commented that if the bills had been enacted the United States could have expected reciprocal treatment, for instance, on the Newfoundland Banks, and off the British Columbia and Mexican coasts.

[30] He commented somewhat extravagantly "It is true that the bill never became law, but the strong protests of the United States to Chile and Peru, make us think of Gœthe who said when he saw a prison-wagon pass: 'Poor people what you have done, I had in mind'." (*op. cit.*, pp. 217-8).

The proposal by an individual legislator, even though approved by the Senate, should not be identified with government policy which was expressed in this instance in an exchange of notes between Japan and the United States providing for voluntary restraint on the part of Japanese fishermen for the time being. As this policy was an interim measure only, however, the two bills above could not help but influence foreign thinking on the ultimate United States policies expressed in the two 1945 proclamations concerning the shelf and the coastal fisheries.

covery of mineral resources in the shelf subsoil and of means to exploit them followed by only a few years the linking of the coastal fisheries with the existence of a subjacent shelf. There was in each case a number of states desiring exclusive appropriation of the resources concerned. The "discovery" of the shelf brought two otherwise entirely disparate economic interests together.

As the legal and economic consequences of an indiscriminate "omnibus" extension of territorial jurisdiction to the outer edge of the shelf to provide for the two kinds of resource interest became more fully evident, and fundamental oppositions of national interest in respect of each apparent, the process of legal distinguishing became operative. A substantial legal controversy over the future scope of the fundamental doctrine of freedom of the seas developed in the process. This was a most important result of the new problem.

Gidel, in 1950, thought the change in the role played by the shelf in the space of thirty years remarkable. The appropriation of the resources of the shelf in the Truman shelf act of 28th September, 1945, marked, he said, the replacement of the earlier fisheries oriented shelf notion.[31] He contrasted this shelf act with the companion Truman coastal fisheries proclamation which made no mention of the shelf. In our opinion, however, the chronologically earlier fisheries oriented shelf notion cannot be regarded as having been demoted in point of time of first official enunciation and immediacy of interest to second rank. It made its clear appearance in current state practice in the Argentine decree of 11th October, 1946, in the form of a claim of sovereignty over the epicontinental sea.

Two concepts using the continental shelf were then at the bar of justice of the international community, in 1946, each standing independently on its own merits for adoption or rejection as law. The basic general shift in orientation of interests in the thirty year period was, however, remarkable. The detailed steps in this evolution and transfer of primary interest to the mineral resources of the sea-bed and subsoil of the shelf are examined now.

The displacement of shelf interest away from the superjacent coastal fisheries was first officially suggested by the Anglo-Venezuelan *Treaty Relating to the Submarine Areas of the Gulf of Paria* of 26th February, 1942.[32] A partition of the sea-bed and subsoil beneath the high seas areas of the Gulf of Paria was arranged. Each state subsequently independently annexed its allotted portion. The shelf, as such, was not involved. This marked an intermediate stage in the development of the shelf concept based on direct interest in its resources. This is what is now familiarly termed the concept of the shelf. On 24th January, 1944, the term *epicontinental sea* was used in a subordinate role in an Argentine decree apparently concerning, however, only mineral resources of the shelf, despite

[31] *PC*, pp. 30-1.

[32] *UN High Seas Laws*, pp. 44-6; and *British Treaty Series*. No 10 (1942), CMD. 6400. Gidel observed the treaty signified the moment of change in the employment of the notion of the shelf and the beginning of its adaptation to the exploitation of mineral resources (*PC*, pp. 35-6).

a confusing reference to the superjacent sea.[33] Both the 1942 and 1944 acts are studied below. The development of physical and technological knowledge and economic need as related to the mineral resources of the shelf subsoil, the cause of these acts, and the shift of interest consequent thereon from the superjacent fisheries is outlined briefly first.

Accessibility of shelf mineral resources beyond the three mile limit, oil in particular, was so developed by 1945 that a special committee of the United States Senate investigating petroleum resources carefully surveyed shelf oil potential in June of that year. Concrete United States interest in the shelf in 1918 and 1927 were noted earlier. Geophysical surveys conducted in 1932 ultimately lead to the discovery in 1938 of the Creole oil field about a mile offshore from Cameron Parish, Louisiana, in the open gulf. A productive area of about one square mile was proved up. In 1941 the Sabine Pass field was discovered about two miles offshore adjacent to Jefferson County, Texas. Early geophysical surveys did not, however, extend beyond three miles from the coast.

Submarine charting operations west of the Mississippi Delta were conducted by the United States Coast and Geodetic Survey before March, 1937. A line of about 26 structural domes was reported along the outer edge of the shelf or on its slope beyond the 100 fathom line. It was suggested that they might be similar to those found under the adjacent land and under which oil had been found from time to time. The broad geologic relations noted were said to suggest that suitable oil traps were present as far out on the submerged shelf of Texas, Louisiana and Mississippi as submarine drilling was likely to be feasible in the then predictable future. The dip and succession of the sedimentary rocks beneath the shelf suggested that the productive horizons existing under the land continued under the sea and formed a large continuous basin.

Legal questions involved beyond territorial waters ceased to be hypothetical when early in 1944 the Superior Oil Company began a systematic seismographic survey up to 26 miles offshore from Cameron Parish, Louisiana. Systematic surveys of the entire continental shelf were found practicable, subject to special hazards such as sudden squalls far from shore.[34]

Sulphur in the cap rock of some salt domes was said to offer the only other mineral possibility of immediate importance. The practicability of marine drilling and oil production in the submerged areas was said to have been established, but its economics were another matter entirely.[35]

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[33]52 *Boletin Oficial,* No. 14,853 (17th March, 1944), p. 6; and *UN High Seas Laws,* pp. 3-4.

[34]Drilling experience was then being obtained on the California coast, in Lake Maracaibo, Venezuela, on the Gulf of Mexico itself, in the then Dutch East Indies and in British Borneo. Directional drilling and erection of well installations short distances at sea were carried out.

[35]Statement of W. E. Wrather, Director of the Geological Survey, *Special Senate Petroleum Hearings, 1945,* p. 360 *et seq.* Three statements covering technological information with regard to the exploration and development of the shelf were presented, that

Dr. W. F. Lee, of the United States Bureau of Mines, reported more specifically that the matter of the shelf had been taken up since about 1936 or 1937 with a Senator Scrugham. Lee said the matter had, however, been more or less quiescent until 1945 when he had spent by then about six years on it.[36] The technical branches of the United States government appear to have become seriously interested in the mineral resources of the shelf in the mid-nineteen thirties. Other countries were also then actively interested elsewhere.

The United Kingdom approached Venezuela on 26th August, 1936 with the suggestion that the two countries conclude an agreement defining their respective submarine interests in the Gulf of Paria. Oil possibilities were the reason.[37] Britain then regarded the submarine areas of the gulf as being *res nullius* susceptible to territorial sovereignty by a form of effective occupation. The 1936 proposal came to fruition in 1942. State practice claiming areas of sea-bed and subsoil situated beneath high seas waters was then initiated by the Anglo-Venezuelan *Treaty Relating to the Submarine Areas of the Gulf of Paria* signed at Caracas on 26th February, 1942.[38]

Previously, the only assertion of exclusive economic right generally recognized beyond the territorial sea and not arrived at by tunnel from shore had been to sedentary fisheries, and then only in certain limited cases based either on an historic claim or on effective occupation, or both. The sedentary species were, otherwise, generally classed with the free-swimming species of the high seas and subject to a like legal regime. The treaty was the first legal act whereby rights of a territorial nature were claimed over zones beneath the high seas as an exception to the general regime of freedom prevailing therein.

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of Mr. Wrather on its oil and mineral possibilities, that of Dr. F. W. Lee, Bureau of Mines, Departmeent of the Interior, on the physical characteristics of the world's shelves and on geophysical exploration of submerged areas on the shelf of the United States, and that of C. J. Moore, Senior Petroleum Engineer, Bureau of Mines, on methods of oil development and production under and beyond territorial waters on the shelf. The statements and papers presented collectively gave a good picture of the reasons for the new orientation of interest on the eve of the first official promulgation of the new concept by the United States in September, 1945, and a survey of the problems, possibilities and challenges posed and of the technological advances making the existence of the resources disclosed economically meaningful.

[36]*Ibid,* p. 381 *et seq.*

[37]Appendix to the message dated 19th April, 1941, of President General Lopez Contreras of Venezuela to the National Congress at its ordinary sessions of 1941 (a copy was furnished for the author by the Embassy of Venezuela to Canada under cover of letter No 913 dated 31st December, 1954—author's translation). The submarine area added to the Venezuelan "National patrimonim" was given as 3,700 sq. kms. The question of sovereignty to the Island of Patos was also regulated at the same time, as desired by Venezuela, by separate treaty which assigned it to Venezuela.

[38]See fn. 32 for its citation. The Treaty was given Venezuelan legislative approval on 15th June, 1942, and executive ratification on 30th July following.

The treaty determined the respective spheres of interest of the signatories in the submarine areas of the gulf.[39] The actual annexation of the submarine areas allocated opposable against third states was made by the parties by separate national unilateral instruments later in 1942.[40] The British portion was attached to Trinidad and Tobago.

No legal justification was given. There was an implication of title by occupation. The shelf was not invoked directly or indirectly.[41] The purpose and scope of the treaty was special, particular and unique, i.e., the resolution of the problem of the partition and appropriation of the sea-bed and subsoil of the gulf beyond the limits of the territorial sea, beneath a small, isolated and relatively untravelled body of water.

The 1942 acts, however, broke new ground and furnished analogies and an incomplete precedent for the regulation of the new interest in submarine oil. The concepts developed were essential in the preparation of a general theory applicable to all adjacent submarine areas, now usually designated by the term *continental shelf*.[42]

The treaty provided that the "status of the waters of the Gulf of Paria or any rights of passage or navigation on the surface of the seas outside the territorial

[39]The preamble recited "Desiring in a spirit of goodwill to make provision for and to define as between themselves their respective interests in the submarine areas of the Gulf of Paria".

[40]Britain issued the *United Kingdom (Trinidad and Tobago) Submarine Areas of the Gulf of Paria (Annexation) Order in Council*, 6th August, 1942, Statutory Rules and Orders (1942), Vol. 1, p. 919; and *UN High Seas Laws*, p. 46. The preamble noted in part "*And whereas* the Government of the Republic of Venezuela have annexed to Venezuela certains parts of the submarine areas of the Gulf of Paria: *And whereas* it is expedient that the rest of the submarine areas of the Gulf of Paria should be annexed to and form part of His Majesty's dominions and should be attached to the Colony of Trinidad and Tobago for administrative purpose". The order was broadly similar to the orders six and eight years later whereby the shelves of several other of the British island colonies in the Americas were annexed. The text of the Venezuelan act was not available and discussion, therefore, is based on the treaty and the British order. The order is analyzed in the text.

[41]Article I of the treaty defined the term "submarine areas of the Gulf of Paria" as the sea-bed and subsoil outside of the territorial waters of the parties to one or the other side of the demarcation line.

The gulf lent itself to special treatment by reason of its geography and its isolation from general high seas navigation. It is 70 miles long by 35 miles wide with openings at each end for navigation of 10 and six miles in width. It is almost entirely enclosed by British and Venezuelan territory, and is entirely so if the fact that the entrances are entirely within the territorial sea of the parties is taken into consideration. These factors doubtless influenced the scope of the treaty and annexation orders.

[42]Former Secretary of the Interior Chapman of the United States stated in 1948 that work had commenced on the solution of legal problems concerning the new oil interest in the shelf as a whole nearly four years before the Truman shelf proclamation of 1945, i.e., about the date of the treaty.

waters of the contracting parties were not to be affected.[43] Such existing rights were not to be closed or impeded by any works or installations which might be erected. A high seas status-preserving clause such as that cited at the beginning of the paragraph became standard in most later shelf acts, saving those also involving the superjacent waters where freedom of navigation only was usually stipulated as being continued. It was one of the essential basic features of the new concept exposed in the treaty. Its place and significance are developed shortly below.

Professor Edwin Borchard of Yale University in 1939, when advising upon the law applicable, sustained the power of the two states to extend their jurisdiction by treaty to explore for oil in the Gulf of Paria as being justified on 1) the theory of sovereignty over the shallow soil and subsoil as an extension of the land, 2) the theory of *terra nullius* implying the acquisition of property by effective occupation, leaving open the question how it was to be effected, and leaving foreign fishing and navigation rights unimpaired, and 3) the theory that all or part of the gulf was so shallow that the two states were justified in claiming it for themselves as national waters, including the subsoil underneath, subject to the surface rights of third persons. Any or all of these claims were said would involve the method by which sovereignty or property was acquired in international law, namely, an assertion of jurisdiction and acquiescence therein.[44]

The second theory was apparently the basis upon which the parties, or at least Britain, proceeded. Article 7 of the treaty referred to the "submarine areas claimed or occupied". Gidel and Waldock interpreted the treaty and consequent annexations in this sense.[45] The third theory was expressly rejected under the terms of the high seas status preserving clause.

Where a similar interest in offshore oil potential existed elsewhere and the geographical situation differed, for instance, where it was a matter of the open high seas as in the case of the Bahamas Islands, a different and more modest solution from the point of view of the law of maritime spaces was adopted by

[43]S. G. Olivos, a Chilean jurist, commented that while the liberty of navigation had been mentioned, the liberty of fishing had not. He wondered whether so notorious and reparable *(subsanable)* an omission corresponded to an indirect reserve of a right of exclusive fishing in such waters (*Mar territorial y derecho moderno,* Editorial Juridica de Chile (1955), pp. 63-4). This omission which later and more importantly was repeated in the United States shelf proclamation of 1945 and several other acts was regarded as significant in Latin America and was probably one cause of the misunderstandings that subsequently at times arose concerning the correct scope of the legislation. Its role in this regard was underlined by the amendment of the draft United States bill which later became the *Outer Continental Shelf Lands Act of 1953* to expressly add to the freedom of navigation the continued freedom of fishing in the superjacent waters.

[44]*Special Senate Petroleum Hearings, 1945,* pp. 142 *et seq.* Borchard was testifying at the time before the committee generally concerning the law applicable in his opinion to the shelf.

[45]Gidel, *PC,* p. 37; and Waldock, *op. cit.,* pp. 131-2.

Britain at this time. Municipal legislation controlling the indispensable onshore installations of companies carrying on adjacent offshore oil operations was held adequate to ensure effective jurisdiction over subsoil resources exploitation beyond the territorial sea limit.[46] The reasoning behind the Bahamas solution in fact was an essential basis of the shelf theory attributing jurisdiction to the riparian state, i.e., that offshore operations were effectively dependent on adjacent onshore facilities and collaboration. This factor would seem to make fears of a "rush and grab" policy by foreign interests operating from the high seas somewhat unreal. Such fears would, however, be more justified in the case of closely adjacent states sharing a common shelf where oil possibilities were real, e.g., the cases of the states about the Gulf of Mexico and the congeries of small states fronting on the Persian Gulf.

The British allocated portion of the submarine areas of the gulf was annexed by the *Submarine Areas of the Gulf of Paria (Annexation) Order* of 6th August, 1942. This order and the complementary Venezuelan annexation law of 12th July, 1942, were the internationally operative unilateral acts availing against third party nations.[47] The order was consitutive in nature and may be analyzed as follows:

a) the object was the "submarine areas of the Gulf of Paria" assigned to Britain. The zone was further defined as "the sea bed and subsoil situated beneath the waters, excluding territorial waters".[48] The term used was "submarine areas"; and

b) the right asserted was territorial sovereignty, as implied from the phrase "shall be annexed to and form part of His Majesty's dominions".

Special provisions ensured the limitation of the annexation to the sea-bed and subsoil. The order was expressly precluded from a) affecting or implying any claim to any territory above the surface of the sea, thus rejecting any possible application of the Russian notion noted earlier, or to any part of the high seas, and b) prejudicing any rights of passage or navigation on the surface of the sea. Regulations were to be made, as also required by the treaty, to ensure that the areas claimed would not be closed to navigation and that works or installations erected would be of such a nature and so constructed, placed, marked, buoyed and lighted as not to constitute a danger or obstruction to shipping. Pollution of coastal waters by oil, mud, etc., was also to be prevented.

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[46]Waldock, *op. cit.*, pp. 132-3. Bahamas *Petroleum Act* of 1945.

[47]The treaty was, however, frequently mentioned without reference to the annexing acts. It was of prime importance, for it set out the scheme and philosophy of the planned annexation in greater detail than, for example, the British annexation order. Its Venezuelan counterpart was not available for analysis.

The actual work of demarcation of the respective zones was carried out by a mixed commission provided for in Article 4 of the treaty.

[48]The system of delimitation of the zones of each party provided for in the treaty and given effect to in the order was apparently from an inspection of a chart of the completed partition, based on the principle of the median line.

As in the treaty, there was no express continuance of the freedom of fishing in waters above the area claimed, freedom of navigation alone being specified. But, the superjacent high seas were not to be affected. This would imply continuation of freedom of fishing.

Both treaty and order should be considered together in evaluating the Anglo-Venezuelan contribution to the shelf concept. Sir Cecil Hurst, in 1948, listed three essential features of the 1942 acts found in the 1945 Truman shelf act. These were:

1) restriction of the object of the claim to the submarine areas of the gulf, i.e., the sea-bed and subsoil outside of territorial waters. His second two points followed necessarily from this basic feature;

2) preservation in consequence of the status of the superjacent waters as high seas; and

3) prohibition of interference with navigation.[49]

These three factors suggested to Sir Cecil, the first to expressly develop the notion, a concept of a horizontal maritime territorial delimitation to answer the difficulties of a claim to an area beneath high seas waters. Difficulty has arisen in the development of the shelf concept over the application of the doctrine of sovereignty in what has been called its "classical" sense, i.e., as extending indefinitely both upwards and downwards above and below the seas, as on land. In Sir Cecil's view the sea boundary, instead of being a hypothetical continuing straight line projected from the centre of the earth through the outer limit of the territtorial sea and skyward to whatever the upper limit of the national airspace might be, would be a line projected from the bowels of the earth to the sea-bed at the defined outer limit of the submarine area (or the continental shelf) claimed, then coastward along the surface of the sea-bed to the outer limit of the territorial sea, and then vertically skyward again to the upper limit of the national airspace. The new boundary would thus form a "gigantic zig-zag". The result would be that the submerged land mass, though itself subject to state control, would be covered by a mass of water whose status would be that of high seas, and that of the superjacent airspace would be equivalent.[50] Sir Cecil held that the provisions of the 1942 acts would have to be read in this manner and concluded that, in theory, the same system might prevail in the legal concept of the shelf.

The United States shelf act of 1945 attempted to avoid the problem of the possible "classical" application of sovereignty by claiming a right to *natural resources* only, and further limiting the claim to a right of "jurisdiction and

[49]*The Continental Shelf*, 34 Transactions of the Grotius Society (1948), p. 164. Sir Cecil listed another characteristic, the clause preserving the status of islands, rocks and territorial waters around them from any effect of the acts. Sir Cecil found the 1942 acts "curiously similar to the United States Proclamation" in the features in the text above.

[50]*Ibid*, p. 164.

control" only. However, it would seem that whatever the technical legal form of the claim, there would be in fact and in law a "horizontal delimitation", whether or not it was also a national "territorial" frontier. This system of delimitation then would appear to be a fundamental contributing notion of the essence of the new shelf concept, or of a claim as limited in the 1942 acts. It was the most important contribution of the 1942 acts to the development of that new concept.

The Anglo-Venezuelan submarine areas acts were not protested by other nations. Gidel observed that objections founded on the freedom of the seas which might have arisen were foreseen and eliminated by the geographical configuration of the spaces, the object of the treaty and by the precautions which were taken as to the future exercise of the rights claimed as they would affect third parties.[51] The general acceptance of the 1942 acts, or at least the absence of objection, was also probably due to such additional factors as, the state of war existing at the time distracting attention from its potential application as a precedent for other perhaps more sweeping encroachments on the zone of the high seas itself, the fact that no vital interests of third party nations were immediately and acutely affected, the isolation of the area, its smallness, and the absence of heavy general "through" international navigation, all of which tended to set the gulf apart as a special case.

Detailed provisions concerning control, marking and lighting of installations and of pollution evidenced an acute concern for the continuing freedom of the high seas and the restriction generally of nuisance to third parties. Such concern developed increasingly after 1945 as the ramifications of the new shelf notion appeared with the growth of state practice and were explored, and objections in general and in particular found public voice. There was a reaction against what was regarded by most as an excessive disregard of the freedom of the high seas found in claims of sovereignty over the epicontinental sea and the 200 mile maritime zone starting in 1946 and 1947, respectively. In part the detailed provisions specified in 1942 strengthened and gave substance to the horizontal delimitation essential to the later legal concept of the shelf. It was natural that Britain, the traditional champion of the freedom of the high seas, and in 1942 the party most interested in the continuing freedom and convenience of navigation in the Gulf of Paria, should show a high degree of concern on this point.

The parties in 1942, having made territorial annexations, were apparently satified that a "classic" operation of the notion of sovereignty could be effectively excluded by express provision and thereby the high seas status of the waters and airspace above preserved. This was a prime point of legal difference between the 1942 acts and the 1945 Truman shelf proclamation which asserted a right of "jurisdiction and control" over natural resources only. The difference of opinion on the right exercisable later became one of the liveliest areas of doctrinal controversy on the shelf concept. The United States did not

[51] *PC*, p. 37.

demonstrate the same confidence in the efficacy of "zig-zag" delimitation so as to accept without misgivings the claim of a right of sovereignty. For this reason it refrained from a claim of sovereignty in either its 1945 shelf proclamation or in the 1953 *Outer Continental Shelf Lands Act.* The 1945 Truman shelf act generalized the 1942 concept of appropriation of submarine areas and gave it a new theoretical grounding by basing it on the shelf. However, before this occurred a further preliminary act intervened.

*Decree No. 1386 Concerning Mineral Reserves* of 24th January. 1944, of the Argentine Republic, invoked the shelf indirectly in an obscure and confusing manner. It provided, *inter alia,* that pending the enactment of special legislation, the zones at the international frontiers of the national territories and the zone on the oceans coasts, as well as the zones of the epicontinental sea of Argentina, were deemed to be temporary zones of mineral reserves.[52]

Presumably the "mineral reserves" intended were those of the sea-bed and subsoil beneath the epicontinental sea. It would be difficult to conceive that when "zones of the epicontinental sea of Argentina" were designated a mineral reserve the operation of the decree was intended to apply to minerals *in* and not *beneath* such waters.

The term "epicontinental sea" was not defined in the decree. The expression had been made familiar in Argentina legal literature by Storni, Suarez, Nagera and others and would appear to have been used to designate generally the whole zone beyond the traditional limit of the territorial sea, without distinction as to waters, sea-bed or subsoil or the resources of any of these, as far as the outer edge of the shelf. The term by itself, however, would make a fisheries and seas orientation seem implied.

Extension of its meaning beyond the literal sense of the seas only to cover the sea-bed and subsoil would further seem implicitly premised on the "classical" application of the concept of territorial sovereignty, i.e., according to the Latin maxim *cujus est solum ejus est usque ad cœlum et ad inferos.* Such a legal interpretation of sovereignty expressly invoked a number of times after 1946 by Latin American jurists and officials of some states in support of their contention that the superjacent seas necessarily fell within the scope of a territorial claim to the subjacent shelf. Inclusion of at least the minerals of the sea-bed and subsoil in the Argentine claim would appear to be the only construction of the bare words of the text which would give positive effect to its apparent intention.

Venezuela and Britain had expressly acted in 1942 on the premise that sovereignty was horizontally divisible. Argentina in 1944 apparently premised its action, at least in the absence of treaty stipulation to the contrary, on the understanding that its incidents were legally indivisible. The establishment of a "mineral reserve" could not be interpreted as an assertion of sovereignty, although it would be an assertion of one of the incidents thereof. It would be

[52]For citation see fn. 33.

unwise, however, to attempt to draw firm and precise legal conclusions in view of the sketchy nature of the pertinent clause of the act.

Three tentative and general conclusions are hazarded i) the term "epicontinental sea" was used as a term of legal art to include the sea-bed and subsoil beneath, ii) the act, and also probably the meaning of that term, implied the "classical" application of the notion of sovereignty, although that right was not claimed, and iii) Argentine interest in the first official although indirect invocation of the shelf in state practice was *prima facie* in the minerals of the physical shelf to the exclusion of the fisheries of the superjacent sea. The decree may be regarded as another indication of the shift of attention towards the mineral resources of the shelf which characterized the first half of the decade of the nineteen forties and of the severability of this orientation from that towards the high seas and living resources therein above. It was the second piece of legislation of this kind, the 1942 acts being the first, and the first oriented about the mineral resources of the shelf as a whole.

The Argentine government three years later in its *Decree Concerning National Sovereignty Over the Epicontinental Sea and the Argentine Continental Shelf* of 11th October, 1946, asserted that by its 1944 act it had "issued a categorical proclamation of sovereignty over the 'Argentine continental shelf' and the 'Argentine epicontinental sea', declaring them to be 'transitory zones of mineral reserves' ".[53] This would seem something of an over-statment. The 1944 act could not be used as a legal precedent for the 1946 decree to the extent claimed. It should best be regarded as an indication of national interest in the minerals of the shelf and as suggesting the three tentative conclusions above.

By 1945 national interest in the shelf had clearly evolved from a purely indirect fisheries orientation to a position reflecting the growing awareness of its petroleum resource potential beyond the territorial sea and of the practicality of its recovery. It was by then clearly centred on two distinct zones physically horizontally separable, the waters above the shelf, the usual habitat of the coastal fisheries, and the subjacent shelf on account of its oil potential. The latter interest had become the immediate one. State practice was evolving so as to treat them as legally separable.

The careful manner in which any direct or indirect indication of support of a policy of coastal state rights in the waters above the shelf was excluded in the Anglo-Venezuelan acts of 1942 was characteristic of the approach of the major maritime powers to the appropriation later of the resources of the sea-bed and subsoil of the shelf beneath the high seas. The question of the conservation of the high seas fisheries was proposed to be treated separately. An international legal controversy of the first magnitude, however, began with the introduction into state practice in the above Argentine decree of 1946 of claims to sovereign-

[53] *UN High Seas Laws*, pp. 4-5.

ty of the epicontinental sea, including necessarily the fisheries of its waters. The precise differentiation made in the 1942 acts between the high seas and the subjacent sea-bed and subsoil supplied the foundation of the legal concept of the shelf by demonstrating a means to avoid infringement on the freedom the high seas consonant with acquisition of rights sufficient for the exploitation of the natural resources of the shelf. The distinction, happily, was also based to a degree on existing law.

Established law provided for freedom of navigation and fishing on the high seas, among other incidents, of the general regime of freedom. The rules on the subjacent sea-bed and subsoil were less fully developed. In the absence of previous immediate interest in this region, the regime of freedom of the superjacent high seas had been attributed to the sea-bed and subsoil largely by default as appropriate to the then existing needs and the undisturbed continuance of the superjacent maritime regime. Minor exceptions occurred where exclusive appropriation of a very small part of such region or of its product had been generally recognized, e.g., certain sedentary fisheries and zones of the subsoil mined by tunnel from within existing territorial limits. The appropriations made in 1942 might also be classified as additional minor exceptions. The 1944 act was *sui generis* and unclassifiable. The essential limitation of the significance of the 1942 acts was that they operated and were probably intended to operate very large within the framework of existing, inadequately formulated, law as minor exceptions to a high seas oriented regime.

Interest in the fisheries of the waters above the shelf officially originated about 1910 and in the petroleum of the subsoil of that region about 1930. The 1942 and 1944 acts showed the relatively increased and dominant weight of the latter interest and the advent of a pressing need for legal regulation of the matter. The 1944 decree completed the formal shift by basing interest in the mineral resources of the subsoil beyond the territotrial sea on the adjacent shelf. The two interests in the shelf, the direct and the indirect, however, continued and were reflected in subsequent state practice. The United States shelf act of 28th September, 1945,[54] based on the direct interest was the first piece of state practice in the current series of that of some 25 nations. It had been comprehensively discussed in the literature of the field. The preliminary phase of the development of the legal concept of the shelf was thereby terminated.

[54]For citation see fn. 1. For a discussion of the act see the articles referred to herein by Gidel, Hurst, Lauterpacht and Waldock.

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