MARITIME GEOGRAPHICAL TERMINOLOGY RELATING TO THE VARIOUS HYDROGRAPHIC SUBDIVISIONS OF THE GLOBE.

ESSAY ON THE GENERAL AND SPECIAL NOMENCLATURE CONCERNING THE OCEAN AND THE EMERGED LAND. VOCABULARY OF TERMS EMPLOYED OR SUGGESTED.

by

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The methodical study of the seas of the globe, the submarine depths, their configuration, their subdivisions, the articulations of the littoral in general and the emerged land with the islands, leads to a classification of the various forms encountered in the thalassographic features under appelations which are widely different and sometimes even controversial.

The definitions concerning the forms have been discussed in certain of their details, but never, so far as we know, in their totality as a whole.

In a Treatise submitted on the Third Germinal, Year VII of the French Era to the "Institut National des Sciences et des Arts", Citizen C.P. Claret FLEURIEU, Member of the "Bureau des Longitudes" raised this issue and listed the various accepted features, both of the portions of the ocean as well as their sinuous conformations in the vicinity of the coasts.

Since that time various authors have treated in more or less detail the question of a standard terminology which should be applied to the various forms of the seas and the shores and the scientific definitions which should be given the latter to characterize the submarine features and the coastal topography employed either in oceanographic works or in the preparation of charts and sailing directions.

A standardization in this field is in fact even more desirable to permit a choice in the various languages of the well-defined word corresponding to each of these standard definitions, and to determine, without ambiguity, the equivalent terms which should be employed in the maritime cartographic transpositions, especially at the moment when the echo soundings permit a better predication of the submerged forms.

Following the 7th International Geographical Congress convened in Berlin in 1899, the Wiesbaden Commission, presided over by the Prince of Monaco, adopted for the nomenclature in oceanography of the sub-oceanic forms, the terms and definitions chosen by Dr. SUPAN in his bathymetric chart (v. Petermanns Mitteilungen 1899 and 1903, "Terminologie der wichtigsten unterseeischen Bodenforme"). This choice was ratified by the 8th International Geographical Congress at Washington in 1904. (German terms due to Dr. SUPAN; English terms to Dr. Hugh Robert MILL; translated into french by Professor THOULET and reproduced in Bulletin N° 21 of the Oceanographic Museum of Monaco, 25 December, 1904).

In 1906 Captain Leonardo CATTOLICA reproduced in his "Traité d'Hydrographie de l'Académie Navale" published by the Hydrographic Institute of Genoa, a tentative terminology proposed by Professor Arturo ISSEL for the horizontal configuration of the emerged land and the maritime depths — "Terminologia geografica relativa alla configurazione orizzontale della terra emersa, al mare e alle profondità marine" (Annali Idrografici, Vol. IV, 1903-04).

In 1910, the French Committee established the french terminology to be employed on the 2nd edition (1912) of the "*Carte Générale Bathymétrique des Océans*" (ref/ Publication du Cabinet Scientifique de S.A.S. le Prince de Monaco, fasc. II, Paris, 1912). In the same year Professor Ramos da COSTA, in his "Noçoes Geraes de Oceanographia" supplied the equivalent portuguese terms.

Reviving the proposals of Dr. Dantin CERECEDA in his "Nomenclatura Espagnola de las formas del modelado submarino", Dr. Rafael de BUEN y LOZANO gave, in 1923 in his pamphlet "Modelado Submarino" the equivalent terms in Spanish reproduced from his "Tratado de Oceanografia" Madrid, 1924.

The Italian terms for the sub-oceanic nomenclature, based on those which were given in the Annali Idrografici Vol. IV (1903-04) have been submitted to the various Conferences and in particular to the Congress of Genoa in 1924 by Professor G. RICCHIERI, according to his work on the "Terminologia Geografica Italiana dei fondi oceanici" (Riv. Geogr. Ital. 1906 and 1908 and the Rivista Marittima 1924) and adopted the same year by the Italian Committee at Milan, presided over by Captain Luigi TONTA, subsequently Director of the International Hydrographic Bureau (Rivista Marittima, January 1926).

This Committee decided to promote an international agreement for the definition of the denominations for the various forms of the oceanic depths, in accordance with the guiding principles laid down by the International Geographic Congress at Rome in 1913.

The International Hydrographic Bureau of Monaco, in Circular Letter N° 21 H. addressed on 5 July 1924 to all its Members, attempted to collate all data concerning the terminology of submarine relief in the various languages employed by hydrographers.

In 1925, the 11th International Geographical Congress at Cairo, invited the various nations to reply favorably to the invitation of the International Hydrographic Bureau for the Maritime Geographical Nomenclature, adopted in the various languages, which should correspond as nearly as possible to a common series of clearly defined primary and secondary forms. The results of this investigation by the International Hydrographic Bureau were analysed in an article by Rear-Admiral A.P. NIBLACK, Director of this Bureau, published in the "Hydrographic Review" Vol. V, N° 2, Monaco, November 1928 page 9, with various observations and comments. This served as a basis in the preparation of the table of designations published in January 1932 by this Bureau as N° 22 C of its Special Publications (with corrections in March 1938 and February 1939) furnishing a complete list of the terms adopted for the designation of the submarine relief by 30 Maritime States.

However, this work and investigation, although presented to the Fourth International Hydrographic Conference of 1937 has not as yet been sanctioned by a Resolution of the Conference and various reservations have been formulated both with respect to the definite adoption of the terms as well as the definitions.

In 1939, Professor Giovanni PLATANIA published in Vol. VIII of the "Annali del R. Istituto Superiore Navale" a study entitled "Terminologia dei fondi oceanici" which brings out several discrepancies, generally of a secondary nature, between the definitions of the I.H.B. and those of various previous authors.

In September 1936 the Assembly of the International Association of Physical Oceanography at Edinburgh took up this question of the Nomenclature and appointed a Committee of Experts on Oceanography and Hydrography to study the Criteria and the Denomination of the Major Divisions of the Ocean Bottom. This Committee submitted a Report in 1940 which was the subject of Scientific Publication N° 8 of the Association of Physical Oceanography and the International Union of Geodesy and Geophysics; University of Liverpool, 1940. This Report was submitted to the Assembly at Washington in September 1940 and certain of its details have been analysed in the *Hydrographic Review,* Vol. XIX, Monaco, July 1942, page .

With a view to a more complete study of the problem and in order to assemble all the material which it will be necessary to present for discussion at the next Conference, we have attempted in the few lines which follow to collate all the elements necessary for a general and special nomenclature pertaining to the configuration of the emerged land and to the seas; to classify the various standard forms by groups and to distinguish them as far as possible by means of definitions satisfying each of them.

Utilizing for this purpose the various definitions of the data employed in the different treatises on oceanography or maritime geography available to the International Hydrographic Bureau, we have undertaken to collate as far as possible, in the same form as the vocabularies already published by this Bureau on other subjects, the equivalents employed by the different countries.

The terms are classified under the following rubrics :

I. *Seas and maritime depths.*
II. *Emerged Land and Islands.*
III. *Littoral in general.*
IV. *Various Articulations of the Littoral.*

Note. The terms marked by an asterisk have already been made the subject of discussions in so far as their definitions are concerned, and, for each of them, we have adopted, to the greatest extent, those already discussed and tentatively accepted.

We have attempted to furnish, as far as possible, the equivalents in the following order :—

French — German — Spanish — Portuguese
Italian — Dutch — Greek — Japanese.

The International Hydrographic Bureau of Monaco will be pleased to received from competent persons interested the missing equivalents or corrections.

I. OCEANS AND SUBMARINE DEPTHS.

a) Forms relating to depths.

(Primary or first magnitude forms).

1 — Ocean = Vast expanse of salt water bordered by the continents and covering the greater part of the terrestrial globe.

Océan — Ozean — Océano — Oceano
Oceano — Oceaan — Okeanos — Dai Yô

* 2 — Trough = A long and broad portion of the deep ocean bordered by the continental shelves or the great ocean rises.

Dépression — Mulde — Hondonada — Depressão
Avvalamento — Inzinking — Ufaloflon — Syûzyôkaibon.

* 3 — Basin = Large submarine cavity of more or less round or oval form.

Bassin — Becken — Hoya — Bacia
Bacino — Bekken — Ufalolekani — Kaibon

* 4 — Trench = A long narrow oceanic depression with relatively steep sides.

Fossé — Graben — Foso — Ravina
Fossa — Treg — Ufalokaradra — Kaikô

* 5 — Deep = Area of relatively small dimensions and the deepest zone in a submarine trough or basin.

Fosse — Tiefe — Fosa — Fossa
(Fondo abissale), Fossa, Imo — Diep — Ufalotafros-Kaien.

* 6 — Sea = A mass of salt water more or less confined by portions of the continent or by chains of islands and forming a basin distinct from the great masses of water.

Mer — See — Mar — Mar —
Mare — Zee — Thalassa — Kai, Nada, Umi.

* 7 — Archipelago = An expanse of water studded with islands, slightly separated from each other; group of islands.

Archipel — Inselmeer — archipélago — archipel Archipelago — Eilandzee, Archipel — Arkipelagos — Sôto.

(Secondary or second magnitude forms).

* 8 — Submarine Valley = Submarine prolongation of a terrestrial valley in the continental shelf or the insular talus.

Vallée sous marine — Thal — Valle, Ria — Vale — Valle sommersa, Vallone — Vallei — Ufalokoilas-Kaikoku.

* 9 — Furrow = Fissure penetrating into the continental shelf or insular talus in a direction more or less perpendicular to the coast-line.

Sillon — Furche — Caño, Surce — Sulco, Rego — Solco — Geul — Ufalaflax — Kaikyo.

10 — Canyon = Fissure with abrupt sides in the continental shelf in a direction more or less normal to the coast-line.

Cañon — ..... — Cañon — ..... — ..... — ..... — ..... — .....

11 — Sac = Indentation in the contour lines of equal depth showing the submarine relief; analogous to a gulf on the surface.

Sac — Bucht — Hoya — Saco — Sacca — Inbochting — Ufalokolpos — Teiwan.

* 12 — Caldron = Deep of small dimensions of circular or elliptical shape, forming an irregularity in the ocean bed.

Gouffre, Trou — Kessel — Caldera — Caldeira — Conca, Caldaie — Ketel — Ufalokoni — Kaibu.

13 — Submarine well (pit) = Uneven cavity on the bottom of the sea.

Puits sous-marin — Brunnen — Pozo — Poço — Pozzo — Put — Phrear — Ido.

14 — Submarine spring = A spring of water welling up from the ocean bottom.

Source sous-marine — Quelle, Brunnen — Fuente — Fonte — Sorgente, Polla Sottomarina — Bron, Spring — Piggi — Izumi.

15 — Lagoon = Sheet of salt water of shallow depth, bordering the coast and separated from the sea by a strip of land or interspersed with islets.

Lagune — Lagune, Haffe — Laguna — Lagôa — Laguna — Lagune — Limnôthalassa — Kankô.

16 — Pond = Sheet of shallow water, generally without outlet located in the interior of the land :— the salt ponds communicate directly with the sea.

Etang — Teich — Estanque — Tanque — Stagno — Poel — Limni — Ike.

17 — Lake = Large sheet of water surrounded by land on all sides.

Lac — See — Lago — Lagô — Lago — Meer — Limni — Kô.

b) Forms of Submarine Relief.

(Primary or first magnitude forms).

* 1 — Rise = A long and broad elevation which rises gently from the ocean bottom.

Seuil — Schwelle — Loma — Soleira — Dorsale, Soglia — Verkeffing, Drempel — Ufalafkin — Kaibô.

* 2 — Ridge = A long and narrow elevation with steeper sides than those of a rise.

Dorsale — Rücken — Espinazo — Dorso — Dosso — Rug — Ufalorakis — Kairai.

* 3 — Crest = A narrow rise of irregular longitudinal profile which constitutes the top of an elevation of the sea-bottom.

Crête — Kamm — Cresta — Crista — Cresta — Kam — Spathi — Kaihô.

* 4 — Plateau = Elevation with more or less flat top rising steeply from the ocean bottom.

Plateau — Plateau — Meseta — Planalto — Platéa, Altipiano, Rialto — Plateau — Ufalonisos, Ufaloropedion — Kaidai.

* 5 — Continental Shelf = Immersed zone bordering the continents running from the line of low water to a place where there is a marked declivity towards the ocean depths, in general at a depth of about 200 metres.

Plateau continental — Kontinental Schelf — Planicie continental — Planalto continental — Piattaforma continentale — Vastelandspiat — Ipeirotiki Ufalokripis — Rikuhô.

* 6 — Insular Shelf = Immersed zone bordering an island or archipelago running from the line of low water to a point where there is a marked declivity towards the ocean depths, in general at a depth of about 200 metres.

Socle — Inselschelf — Planicie insular, Zôcalo — Planalto insular.
Piattaforma insulare — Eilandsplat — Nisiotiki ufalokripis — Tôhô.

* 7 — Talus (continental or insular) = The declivity from the lower edge of the continental shelf into deeper water.

Talus — Kontinental (Insel) Abfall — Talud continental (insular) — Talude continental (insular) — Scarpa continentale (insulare) — Vastelands (Eilands) glooiing — Ipeirotikon (Nisiotikon) Ufalopranes — Rukuhôgai Tôhôgai.

8 — Sea-mount (volcano) = Elevation rising from the sea-bottom with relatively small dimensions in the form of a mountain, peak, dome or volcano.

Montagne sous-marine, Volcan sous-marin — ..... — ..... — ..... — ..... — ..... — .....

9 — Submarine Peninsula = An excrescence in the contour lines indicating the submarine relief of a form analogous to the land peninsula (contrary of the "sac").

Péninsule sous-marine — ..... — Cordón — Cordão — ..... — ..... — Ufalokersonisos — Kaitei, Hantô.

10 — Submarine Isthmus = Submarine elevation joining two continents or islands and separating two basins or depressions by a depth less than that existing in the said basins.

Isthme sous-marin — ..... — ..... — ..... — ..... — Drempel — Ufalisthmos — .....

1 — Bank (1st magnitude form) = Elevation of any kind or dimension above which the water is relatively shallow but sufficient for surface navigation, somewhat analogous to the insular shelf, but without any island or archipelago rising from it to the surface of the sea. In its first magnitude form it may serve as as support for secondary formations dangerous to navigation, such as shoals and reefs.

Banc — Bank — Banco — Banco — Banco — Bank — Stithos — Tai.

(Secondary or second magnitude forms).

*12 — Shoal = A detached area the depth over which creates a danger to surface navigation and which may be of any material excepting rock or coral. Generally submerged, but may be uncovered at low water.

Haut-fond — Grund, Untiefe — Bajo — Baixo Secca — Ondiepte — Ufalonisos — Su.

13 — Flat shoal = Shoal on which the waves of the sea may break but which does not uncover.

Basse, batture — Watt — Bajo — Baixo — Bassa — Droogte — Vrakéa — Asaki, Asase.

*14 — Reef = A rocky or coral elevation which is dangerous to navigation and which may uncover.

Récif — Riff — Arrecife — Recife, Cachopo — Scoglio — Rif — Koirades, Spilades — Syô.

14 (a) — Group of reefs = Group of rock or coral elevations dangerous to navigation which may uncover, in the form of chains or masses.

Groupe de récifs — Riffenreike — Formigas, Farallon — Parcel — Formiche, Scogliera — ..... — ..... — Sone.

15 — Ledge = Long submarine reef projecting slightly above the surface of the water.

Chaussée — ..... — Arrecife — ..... — ..... — ..... — ..... — .....

16 — Bank (Secondary form) = (of sand, mud, gravel etc.). Conglomeration of sand, mud or gravel rising from the bottom of the sea or bed of a river and forming a rise which may be dangerous to navigation.

Banc — Bank — Banco — Banco — Banco — Bank — Stithos — Tai.

17 — Bar = Submarine obstacle formed at the mouth of a river or at the entrance to a port, generally sandy and mobile, and forming a rise which renders the passage of ships difficult or even dangerous.

Barre — Barre — Barra — Barra — Barra — Drempel — Kumatogi — .....

18 — Spur = Point under a salient projecting into the sea in the of a spur, consisting in general of a mass of sand or gravel.

Eperon — Ausläufer — Cuña — Esparâo — Sprone — Spoor — Ufalemvolon — Senkô.

* 19 — Knoll (Dome) = An elevation with a small ground area and steep slope.

Dôme — Kuppe — Domo — Cupola — Cupola — Koepel — ..... — .....

20 — Pinnacle = Rocky submarine formation rising from the bottom in the form of a pyramid or sharp cone; which may sometimes uncover.

Aiguille — Spitze — Aguja — Agulha — Guglia — Klip — Ufalovelos — Sensyô.

21 — Covered rock = Submarine rock, constituting a danger to surface navigation which does not uncover at low water.

Roche couverte — Blinde Klippe — Roca sumergida — Rocha submarina — Scoglio somerso — Blinde Klip — Vrakéa — Bossu.

22 — Flats = A broad uniform substratum.

Platin — ..... — ..... — ..... — ..... — Plaatje, Wlakte — Butos isos — .....

23 — Shallows = Substratum of small depth; shallows.

Bas-fonds — Untiefe — Bajo — Baixo — Basso fondo — Droogte — ..... — Tai, Asase.

24 — Ripples = Folds in the ground on the ocean bed.

Ridens — Riden — ..... — ..... — ..... — ..... — ..... — .....

II. EMERGED LAND AND ISLANDS.

1 — Continent (Terra firma) = Vast expanse of land in one single piece which can be traversed without crossing the sea.

Continent (terra firma) — Festland, Kontinent — Continente — ..... — Continente — Vaste land, Continent — ..... — ..... —

2 — Land = Country of a certain expanse bearing a definite name.

Terre — Land — Tierra — Terra — Terra — Land — ..... — .....

3 — Island = Piece of land surrounded by water on all sides and with a superficial area not exceeding 5×10^6 sq. km.

Ile — Insel — Isla — Ilha — Isola — Eiland — Nisos — Sima.

4 — Islet = Small island, with superficial area between 100 and 10 sq. km.

Ilôt — Inselchen — Isleta — Ilhote — Isoletta — Eilandje — Nissis — Tô.

5 — Small Islet = Very small island with area between 10 and 1 sq. km.

Ilet — ..... — Islote — Ilheu — Isolotto — ..... — Nisidion — Tâo.

6 — Archipelago = Group of islands more or less adjacent to each other and arranged in groups covering portion of the sea.

Archipel — Archipel — Archipielago — Arquipelago Arcipelago — Archipel — Arkipeagos — Sôtô, Guntô.

7 — Wreath of islands = Series of islands in lines or on arc of a circle.

Chapelet d'îles — ..... — ..... — ..... — Serie d'isole — ..... — ..... — Rettô.

8 — Atoll = Madreporic island in the form of a ring more or less continuous around an interior lagoon.

Atoll — Atoll — Isla madreporica — Atol — Atollo — Atol — Nesis Koralligienis, Atolli — Kansyô

9 — Key = Low and rocky islet, surrounded by coral reefs and often covered with mangroves.

Caye, Key — ..... — Cayo — ..... — ..... — ..... — ..... — .....

10 — Vigie = Small islet which barely uncovers at low water and of doubtful position.

Vigie — ..... — Vigia — ..... — ..... — ..... — Skopi — .....

11 — Emerged bank (Sèche) = Shoal or bank which remains dry at low water.

Sèche, banc émergé — Watt — ..... — ..... — Secca, Banco emerso — Wad — ..... — .....

12 — Reef = Rock, reef or bank awash and dangerous to navigation.

Ecueil — Riff — Escoglio, Abrojo — Escolho, Abrolhos, Penhasco — Scoglio — Rev — Skopelos — .....

13 — Breakers = Reef at water level over which the seas break.

Brisants — Brandung — Rompientes — Rebentação — Frangenti — Branding — Spilas — Harô.

14 — Rock awash = Isolated rock dangerous to navigation.

Roche (à fleur d'eau) — Klippe — Vela — Rocha a flor d'agua — Rocca a fior d'acqua — ..... — ..... — Sengau.

15 — Rock (steep rock) = Prominent, isolated rocky formation rising above surface of the sea with an area of less than 1 sq. km.

Rocher — Felsen — Roca — Rocha — Rocca — Klip — Vrakos — .....

16 — Chain of rocks = A series of prominent rocky formations in line rising above the sea-level.

Chaîne de rochers — ..... — ..... — ..... — ..... — ..... — ..... — .....

III. LITTORAL IN GENERAL.

1 — Littoral = Emerged area situated along the coast.

Littoral — Litorale — Litoral — Littorale — Litorale, Lido — Kustland — Kostiera — Umibata.

2 — Coast = Edge of the terra firma in immediate contact with the sea.

Côte — Küste — Costa — Costa — Costa — Kust — Aktai, Kosta — Engan.

3 — Coast-line = More or less indefinite and irregular line as a result of meteorological or other conditions, along which the terra firma makes contact with the sea.

Ligne de côte — Kustenstrich — ..... — ..... — ..... — ..... — ..... — .....

4 — High tide shoreline = Line bearing the indications of the highest water reached at high tide.

Ligne de baisse de haute mer — ..... — .... —
..... — Hoog waterlijn — ..... — .....

5 — Shore = Strip of land bordering the sea comprising all the portion which covers and uncovers at the time of the highest tides.

Rivage — Strand — Ribera, Orilla — Beiramar — Riva, Sponda — Strand — Aigialos — Hama.

6 — Bank = Strip of land bordering a river, lake or pond.

Rive — Ufer — Margem — Margem —
Riva — Oever — ..... — .....

7 — Foreshore (strand) = Part of the flat and sandy shore comprised between the line of high and low water which covers and uncovers alternately.

Estran, Estrand — Trockenfallend — Desplayar, margem — Zona lavada —
Greto, Spiaggia morta — Droogvalling — Ayalos, Plesialon — Kansitutai.

* 8 — Low tide shoreline = Space which the sea uncovers at each low water. This is the zone uncovered by the low tide.

Laisse de basse-mer — ..... — ..... — ..... — ..... — Laagwaterlijn — ..... — .....

9 — Beach = Flat uncovered shore of the sea, sandy or muddy, with gentle slope continuing under the sea to the shallows.

Plage — Strand — Playa — Plaga, Marinka — Spiaggia — Vlak, Strand — Spiantza — Hama.

10 — Gravel beach = Beach of sand and gravel.

Grève — Sandstrand — Arenal — Praia —
Arenile — Zandige Oever — Psifoti — .....

11 — Back shore = Relatively narrow zone on the littoral on which the waves break.

Battant — ..... — ..... — ..... —
Battente di mare — ..... — ..... — .....

12 — Offshore = Prolongation of the shore towards the sea and constituting a continental terrace of the abrased material.

Front côtier — ..... — ..... — ..... —
..... — ..... — ..... — .....

13 — Levees = Banks above water of loose material like peeble or gravel formed parallel to the coast and enclosing between them and the littoral the lagoons which communicate more or less with the sea.

Cordon littoral — Nehrungen — Cordón littoral — ..... —
Cordoni litorali — ..... — Aktotairia — .....

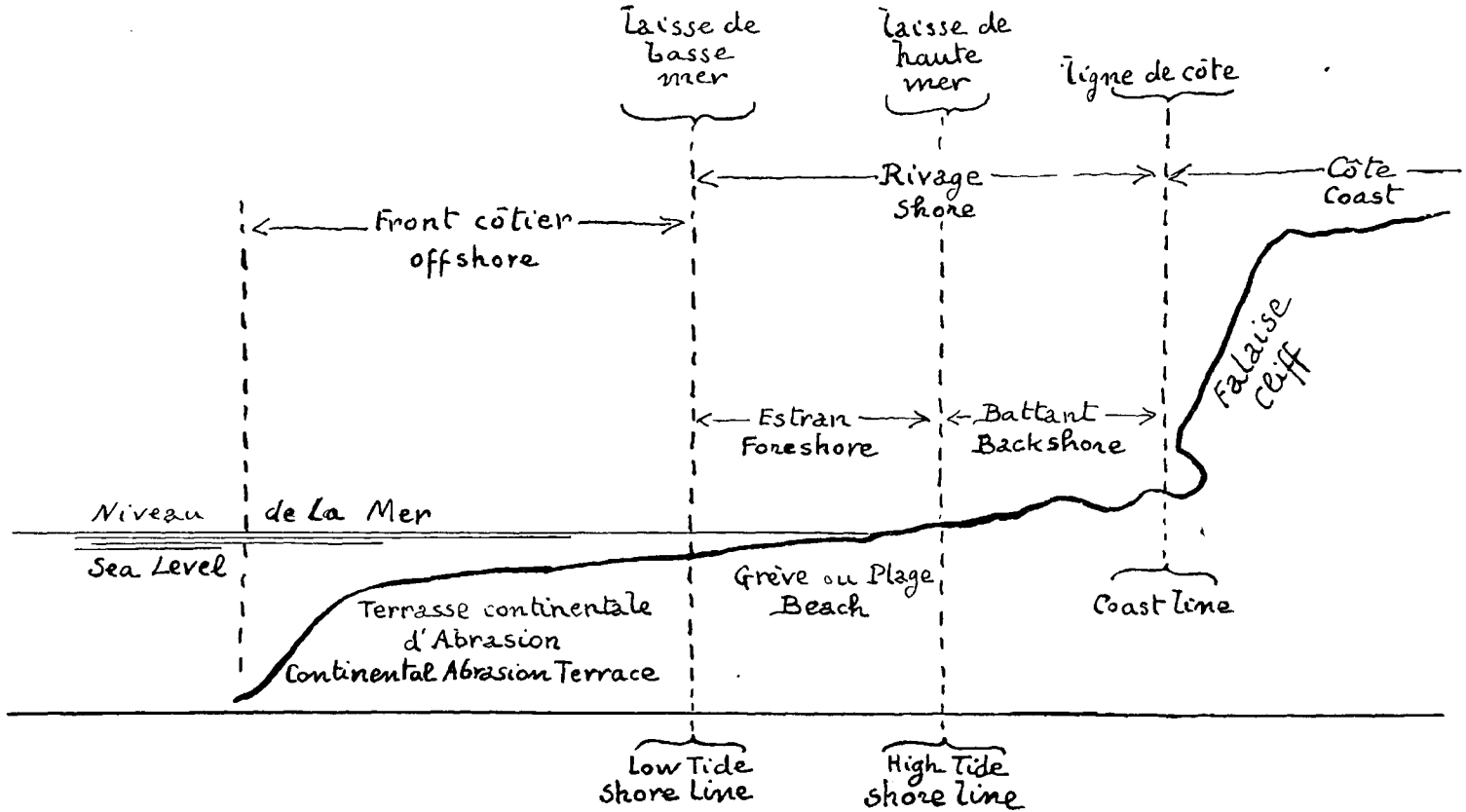
laisse de basse mer
laisse de haute mer
ligne de côte
Rivage
Shore
Côte
Coast
Front côtier
offshore
Falaise
Cliff
Estran
Foreshore
Battant
Backshore
Niveau de La Mer
Sea Level
Terrasse continentale d'Abrasion
Continental Abrasion Terrace
Grève ou Plage
Beach
Coast line
Low Tide shore line
High Tide shore line

PLATE I.

14 — Cliffs = A sharp declivity of land on the edge of the sea.
Falaises — Steilabhang — Peñasco — Escarpa — Ripa — Steilte — Rigmin — Gake.

15 — Dune = Masses of sand in hilly form piled up by the wind, found sometimes along the shore or in the deserts.
Dunes — ..... — Medano — Duna — Dune — Duin — Tines — Sunayama.

16 — Polder = A piece of low-lying land reclaimed from the sea.
Polder — ..... — ..... — ..... — ..... — Polder — ..... — .....

17 — Marsh (Swamp) = Kind of swamp or insalubrions land on the edge of the sea, of a lagoon or at the mouth of a water-course communicating temporarily with the sea.
Marais, maremme — Sumpf — Pantanos — Mantano Maremma, Palude — Moeras — Elos — Numa.

18 — Salt marsh = Flat basins or compartments opened up on the sea-shore for the circulation of sea water to make it give up its salt.
Marais salants ou salines — Salzsumpf — Salinas — Marinha —
Salina — Zoutpan — Aluki — Kata.

19 — Enrockment = Series of rocks adhering to the shore or artificially placed along the moles or dykes or also the madre-porous formations.
Enrochements — ..... — ..... — ..... —
Scogliera — ..... — ..... — .....

IV. VARIOUS ARTICULATIONS OF THE LITTORAL.

1 — Gulf = Vast expanse of the sea which penetrates into the interior of the land; in general the entrance is wider than its length.
Golfe — Golf — Golfo — Golfo —
Golfo — Golf — Kolpos — Kaiwan.

2 — Bay = Penetration of the sea into the coast; wider in the middle than at the entrance.
Baie — Bucht — Bahia — Baia —
Baia — Baai — Ormos — Wan.

3 — Cove = Very small gulf in the sand or gravel beach.
Anse — Kleine Bucht — Ensenada — Enseada —
Insenatura — ..... — Ankali, Uformos — Ura.

4 — Creek = Small narrow bay generally forming a natural port at the mouth of a river at tide-water and serviceable as an anchorage for vessels.
Crique, Calanque — Kriek — Cala, Caleta — Angra, Caleta —
Cala, Calanca — Kreek — Ormiskos — Ho.

5 — Sherm (arabic) = Small shallow gulf bordered by emerged coral reefs.
Scherm — ..... — ..... — ..... —
Scerm — ..... — ..... — .....

6 — Fjord = A long deep and narrow arm of the sea running into the coast, often with ramifications deeper in the central part than at the mouth where there is a submarine rise, and prolonged on land by a valley or watercourse draining a lake.

Fiord — Fjord — Fiord — Fiord — Fiord — Fjord — Fiord — Irie.

7 — Inlet = Narrow arm by means of which the sea water penetrates into the land; whether subjected to tidal influences or not.

Entrée, impasse — Einfahrt — Entrada — Entrada — Entrata — Ingang — Eisodos — Irie.

8 — Ria = Enlarged mouth of small coastal river, the depth of which increases regularly and corresponds to a synclinal fold; often prolonged by submarine valley.

Ria — ..... — Ria — ..... — ..... — ..... — Ria — .....

9 — Marsa = Bay of lesser extent and shallower than the "ria" and formed by the end of a small eroded submarine valley.

Marsa — ..... — ..... — ..... — ..... — ..... — ..... — .....

10 — Estuary = Indentation in the coast formed by the mouth of a large river.

Estuaire — Mündung — Estero — Estuario — Estuario — Monding, Zeegat — Ekbolai potamon, Potamokolpos — Kakô.

11 — Mouth = Mouth of a river — Straits.

Bouches — ..... — Embocadura — ..... — Bocca — Mond — ..... — .....

12 — Embouchure = Entrance of a river into the sea.

Embouchure — Mündung — Desembocadura — Embocadura, Foz — Foce, Imboccatura — Riviermond — Stomion — Kuti, Guchi.

13 — Delta = Triangular island, generally very low, formed by the double mouth of a river.

Delta — Delta — Delta — Delta — Delta — Delta — Delta — .....

14 — Liman = Estuary progressively isolated by a strip along the littoral which closes leaving a narrow passage.

Liman — ..... — ..... — ..... — ..... — ..... — Limen — .....

15 — Roads = Large natural or artificial basin having an outlet to the sea where vessels may anchor in safety. The open roadstead is exposed to the winds from the sea. The closed roadstead is well sheltered either naturally or by construction.

Rade — Reede — Rada — ..... — Rada — Reede — Ormitérion — Hakuti.

16 — Anchorage = Locality in the sea favorable for anchoring.

Mouillage — Ankerplatz — Fondeadero — Ancoraduro, Fondeaduro —
Ancoraggio — Ankerplaats — Ankurobolion — Byôti.

17 — Harbour = Natural port or one closed by a jetty.

Hâvre — Hafen — Abra — Angra —
..... — Haven — Ormos — Minato.

18 — Port = Shelter in the sea-coast formed or improved by man to afford protection for vessels and permit embarcation.

Port — Hafen — Puerto — Porto —
Porto — Haven — Limen, Porto — Ko.

19 — Wet-dock (Inner basin) = Inner basin of a port.

Darse — Dock — Darsena — Darsena —
Mandracchio, Darsena — Binnenhaven — Lekami —
.....

20 — Sea-arm = Stretch of the sea comprised between two bodies of land quite close together and having a certain length.

Bras de mer — Gat — Brazo de mar — Esteiro —
Braccio di mare — Zeegat — Amfigeion — .....

21 — Channel (Bosphorous) = Large arm of the sea with convergent banks terminating at one of the extremities in a Strait or narrow passage.

Manche, Bosphore — ..... — Bosforo — ..... —
Manica, Bosforo — ..... — Diekplous — .....

22 — Strait = The drawing together of two banks in a relatively short space (Oxford Dict. "A comparatively narrow water-way or passage connecting two large bodies of water").

Détroit — Strasse, Sund — Estrecho — Estreito —
Stretto — Straat — Stenon, Portmos — Kaikyô.

23 — Passage = Narrow navigable passage between two banks of or islands.

Passe — Pass, Seegat — Paso — Passo —
Passo — Passage — Poros aulax — Suidô, Seto.

24 — Narrows = Constricted navigable passage.

Pertuis — Öffnung — Garganta — ..... —
Faro — Naüw — ..... — Hori.

25 — Channel = Deep and narrow passage accessible to vessels.

Chenal — Fahrwasser — Canal — Canal —
Canale — Vaarwater — Diolos — Suidô.

26 — Canal = 1°) Portion of the sea enclosed between two banks.
2°) Artificial water communication between the sea, lake or river, which may comprise basin locks or mill-leats.

Canal — Kanal, Graben — Canal — Canal —
Canale — Kanaal — Diorux — Unga.

27 — Inlet = Narrow entrance leading to a roadstead or port.

Goulet — Rinne — Freo — ..... —
..... — Geul — ..... — .....

28 — Race, Tide-race = Very constricted passage in which a strong tidal current flows.

Raz — ..... — ..... — ..... — ..... — ..... — ..... — Shio.

29 — Promontory = Protuberant peninsula or elevated cape projecting into the sea.

Promontoire — Vorgebirge — Promontorio — Promontorio — Promontorio — Voorgebergte — Akrotérion — Kokaku.

30 — Cape = Extremity of a point of land projecting into the sea.

Cap — Kap — Cabo — Cabo — Capo — Kaap — Kavos, Kephalé — Misaki, Saki.

31 — Point = Protuberance of land projecting as a salient into the sea and less pronounced than a peninsula.

Pointe — Huk, Spitze — Punta — Ponta Punta — Punt, Spitz — Akra — Saki.

32 — Tongue of land = Low sandy or pebbly peninsula.

Langue de terre — Landzunge — Lengua de Tierra — ..... — Lingua di Terra — Landtong — ..... — .....

33 — Spit = Sandy tongue forming a salient into the sea.

Epi, flèche — ..... — Puntilla — Restinga, Espigão ..... — ..... — ..... — .....

34 — Peninsula (Large) = Peninsula of large dimensions.
(A piece of land almost an island of large dimensions).

Péninsule — ..... — Peninsula — Peninsula — ..... — ..... — ..... — .....

35 — Peninsula =

Presqu'île — Halbinsel — Península — Peninsula — Penisola — Schiereiland — Kersonesos — Hanto.

36 — Isthmus = A narrow tongue of emerged land constricted confined between two bodies of water and connecting bodies of two lands.

Isthme — Isthmus — Istmo — Isthmo — Istmo — Landengte — Istmos — .....

37 — Tombolo (Spanish) = Formation consisting of an islet connected to a point on terra firma by an arrow (narrow tongue) of sand or other composition.

Tombolo — ..... — ..... — ..... — ..... — ..... — Tompolo — .....

RECAPITULATION.

I. SEAS AND OCEAN DEPTHS.

a) Forms relating to depths.

1. First Magnitude.

1 — Ocean.
* 2 — Trough.
* 3 — Basin.
* 4 — Trench.
* 5 — Deep.
6 — Sea.
7 — Archipelago.

2. Second Magnitude.

* 8 — Submarine valley.
* 9 — Furrow.
10 — Canyon.
11 — Sac.
*12 — Caldron.
13 — Submarine well.
14 — Submarine spring.
15 — Lagoon.
16 — Pond.
17 — Lake.

b) Forms of Submarine Relief.

1. First Magnitude.

* 1 — Rise.
* 2 — Ridge.
* 3 — Crest.
* 4 — Plateau.
* 5 — Continental Shelf.
* 6 — Insular Shelf.
* 7 — Talus.
8 — Sea-mount.
9 — Submarine Peninsula.
10 — Submarine Isthmus.
11 — Bank (First Magnitude).

2. Second Magnitude.

*12 — Shoal.
13 — Flat shoal.
*14 — Reef.
15 — Ledge.
*16 — Bank (secondary magnitude)
17 — Bar.
18 — Spur.
*19 — Knoll.
20 — Pinnacle.
21 — Covered rock.
22 — Flats.
23 — Shallows.
24 — Ripples.

II. EMERGED LAND AND ISLANDS.

1 — Continent (or terra firma).
2 — Land.
3 — Island.
4 — Islet.
5 — Small Islet.
6 — Archipelago.
7 — Wreath of islands.
8 — Atoll.
9 — Key.
10 — Vigie.
11 — (Sèche).
12 — Reef.
13 — Breakers.
14 — Rock awash.
15 — Steep rock.
16 — Chain of rocks.

III. LITTORAL IN GENERAL.

1 — Littoral.
2 — Coast.
3 — Coast-line.
4 — High-tide shoreline.
5 — Shore.
6 — Bank.
7 — Foreshore (strand).
* 8 — Low-tide shoreline.
9 — Beach.
10 — Gravel beach.
11 — Back shore.
12 — Off shore.
13 — Levees.
14 — Cliffs.
15 — Dunes.
16 — Polder.
17 — Marsh (Swamp).
18 — Salt marsh.
19 —

IV. VARIOUS ARTICULATIONS OF THE LITTORAL.

1 — Gulf.
2 — Bay.
3 — Cove.
4 — Creek.
5 — Sherm.
6 — Fjord.
7 — Inlet.
8 — (Ria).
9 — (Marsa).
10 — Estuary.
11 — Mouth.
12 — Embouchure.
13 — Delta.
14 — Liman.
15 — Roads.
16 — Anchorage.
17 — Harbour.
18 — Port.
19 — Wet-dock.
20 — Sea-arm.
21 — Channel (Bosphorus).
22 — Strait.
23 — Passage.
24 — Narrows.
25 — Channel.
26 — Canal.
27 — Inlet.
28 — Race; Tide-race.
29 — Promontory.
30 — Cape.
31 — Point.
32 — Tongue of land.
33 — Spit.
34 — Peninsula (large).
35 — Peninsula.
36 — Isthmus.
37 — Tombolo (spanish).