

THE STRATEGICAL PROBLEM
OF THE ADRIATIC

THE
STRATEGICAL PROBLEM
OF THE ADRIATIC

A Popular Explanation of Italy's Defensive Needs

BY
COMMANDER G. RONCAGLI, R.I.N.

WITH AN INTRODUCTORY LETTER FROM
ADMIRAL THAON DI REVEL
Chief of Italian Naval Staff

PUBLISHED BY THE
ROYAL ITALIAN GEOGRAPHICAL SOCIETY

1919

CONTENTS

	PAGE
Letter from Admiral Thaon di Revel, Chief of Italian Naval Staff	vii
Preface	ix

CHAPTER I

PRINCIPLES AND DEFINITIONS	15
(a) Naval Bases	15
(b) Strategical Characteristics	17
(c) Tactical Characteristics	20
(d) Organic Preparation	28
(e) Temporary Stations	29
(f) Errors to be Avoided	30

CHAPTER II

THE MILITARY IMPORTANCE OF THE TWO SHORES COMPARED	38
(a) The Eastern Shore	38
(b) The Western Shore	47
(c) The Problem of the Strategical Centre	50

CHAPTER III

WAR LIMITED TO THE ADRIATIC	56
(a) First Hypothesis—The Italian Boundary at the Watershed of the Dinaric Alps..	58
(b) Second Hypothesis—Italy obtains only a few Islands off the Dalmatian Coast ..	63

CONTENTS

CHAPTER IV

	PAGE
WARFARE EXTENDED BEYOND THE ADRIATIC ..	72
(a) The Consequent Strategical Situation ..	74
(b) Defence of the Otranto Channel	77

CHAPTER V

A SINGULAR ASPECT OF THE PROBLEM	83
--	----

CHAPTER VI

INFLUENCE OF MODERN WARFARE ON THE DEFENSIVE ORGANISATION OF THE ADRIATIC	89
---	----

CHAPTER VII

CONCLUSION	97
--------------------	----

Maps

	<i>Facing</i>
The " Bocche di Cattaro "	18
Brindisi	32
Vallona	34
Venice and its Lagoons	36
Pola	46
Sketch-map of Dalmatia—The harbours of Spalato and Traù	64
Sketch-map of the Maritime Basin of the Adriatic	100

LETTER

*From H. E. Admiral COUNT PAUL THAON
DI REVEL, Senator of the Kingdom, Chief
of Italian Naval Staff.*

ROME, June 25th, 1918.

DEAR RONCAGLI

I have read your treatise on the defence of the Adriatic with the greatest pleasure; and I am very delighted to find how that harmony of thought which has existed between us for nearly half a century now finds our opinions in that same concord in which they were during the early days of our career at the naval school, on board the old *Vittorio Emanuele*.

I am especially glad that you have succeeded in treating the maritime problem of the Adriatic in such a way as to make it intelligible to the general public, which was precisely the task to which you set yourself. You are right in complaining that up to the present what has been written on naval matters has not the merit of being intelligible to the masses of the people; and I fully agree with you that the lack of a popular explanation of problems essentially connected with the defence and safety of the national

LETTER

territory has sometimes been responsible for the formation and publication of erroneous opinions which it is afterwards difficult to correct. That is what has actually happened in regard to the maritime defence of Italy. But while we deplore the lack of popular instruction on this point, we must at the same time admit that to supply that lack is one of our most difficult problems ; because it not only requires a certain elevation of thought, which is certainly not lacking in Italy, but it requires above all a mastery of one's subject and a clarity of vision, qualities which are not easily found associated and well balanced, one with the other, when there is question of such a specialised theme.

You have developed your treatment of the subject with your usual ability. That has been precisely because of the exact mental grasp of it which you possess ; and the manner in which you have expressed your mind could not be clearer. Therefore I am fully confident that your excellent essay will produce the desired result. It will have a beneficent effect, because it will throw light on some fundamental principles and will spread abroad a knowledge of them, which none but a superficial observer could deem to be of secondary importance.

Always your affectionate Friend,

P. DI REVEL.

PREFACE

BETTER than any other of our experiences, war teaches us the need for a knowledge of geography. In saying this I have not in mind the popular notion of geographical knowledge, but rather its real and scientific nature. I am not thinking of the advantages to be gained by teaching descriptive geography or merely bare nomenclature, for the purpose of satisfying passing curiosity; but rather a knowledge of geography which will enable one to trace the root causes of the events which happen in war and to judge of them in their relations to these causes.

Military science, in so far as it is a study of the preparation which warfare demands, looks to geography as the foundation on which its plans are built. Geographical knowledge of the theatre of war, taken in the broadest sense of the word, is an essential condition for the laying of plans, as it is also a condition of the subsequent conduct of operations. And the Great War, which for over four years has held the world in a catastrophic

PREFACE

convulsion such as has never been known in history, shows that when one speaks of geographical knowledge of the theatre of war one does not merely allude to the *terrain*, that is to say, to physical geography, but also to the inhabitants, that is to say, to human and social geography.

Military geography is but a special interpretation of the facts of physical and human geography that affect a given region which is or may become a theatre of war. It is a special interpretation, because it is based on a particular point of view, namely, that of turning these facts to the greatest possible advantage in conducting and maintaining a military or naval campaign.

The interest which warfare awakens, the rivalry of every kind that it arouses, the violent changes which it brings about, even sometimes in individual relations, force many people to take a passionate interest in the phenomenon. They are drawn into such an exceptional whirl of unusual and violent impressions, and are oftentimes so torn hither and thither by conflicting sentiments, that they must need speak and write of them in order to relieve their souls. It is but natural that many should rush into print, simply following the lead of their impressions, without having sought to obtain that special knowledge which would enable them to measure the value of their own impressions, to

PREFACE

choose between the import of one and another, and to bring them all under the guidance of an instructed mind. Many, either by reason of temperament, or because they have contracted the habit of following a set order of ideas and applying a fixed mode of reasoning, fail to control their impressions and allow themselves to be dominated by them.

In the same way it happens that many think themselves possessed of sufficient knowledge to throw light on the most intricate questions of actual warfare, to discover its laws, to set forth its consequences and to make far-reaching prognostications. But from the practical point of view there are few who are qualified to speak and write about warfare in a manner which may be helpful to themselves and others. Very often, indeed, the flood of opinions and prophecies and deductions, which appear logical enough but are really paradoxical, engulfs the multitude, and the result is that, where a clear vision of the true state of things ought to prevail, confusion reigns supreme.

For obvious reasons the Adriatic question has passionately interested and still interests a large number of people. And many think that they need only logic and common sense to qualify them for the discussion of the problems to which it gives rise.

PREFACE

Therefore there are people even of high education who think that they are in a position to express their opinions on the complex problems of the Adriatic; and not only that, but even to pass sentence on the case and to lay down the strategical lines that ought to be established, with the result that the unenlightened mass of readers are inclined to accept these opinions, which as a matter of fact are entirely out of harmony with the military realities.

Under a certain aspect, the military problem of the Adriatic is of a more peculiar character than the general problem of the maritime defence of Italy, of which it forms an integral part. It is a problem absolutely dependent on natural and immutable causes, of which geography is the key. The narrowness of the maritime basin, its geographical position, the special formation of the land that surrounds it, the depth of its waters, etc., are all elements that have their part in the solution of the general question. Only by means of a knowledge of these factors, together with a knowledge of the indestructible and fundamental laws of maritime warfare, can one form a proper estimate either of the natural and human characteristics of the sea itself or of the best way in which these factors may be utilised in the conduct of a war.

In Italy geography has had and still has good

popular exponents. Of military science the reverse is true. This book is an attempt to explain the military problem of the Adriatic to the general public, to give a general idea of the theoretical principles which are necessary to an understanding of the question in its real nature, and also necessary in order to follow intelligently its developments and understand it in all its aspects. It is a book which has been written for the public at large and it aims at supplying them with the means of estimating for themselves the import of certain facts which could otherwise be but imperfectly understood.

I am indebted to Mrs. Louisa Piovanelli Heyland for having accepted the task of translating this book from its Italian original. Owing to the technical character of the subjects dealt with, her task was not an easy one, and I am pleased to acknowledge here that she has accomplished it in a satisfactory way.

G. RONCAGLI.

ROME,
June, 1918.

CHAPTER I

PRINCIPLES AND DEFINITIONS

NAVAL BASES

BEFORE coming to the vital part of the general problem, it is well to define with precision some of its elements and clear the ground of error and misconception.

People generally imagine that a good harbour, or even any port upon which art and nature have conferred the possibility of being a safe refuge for shipping, is for that reason alone a good naval base, or at least lends itself to become one. And it is often taken for granted that wherever a maritime arsenal has been raised there must necessarily also be a base for fleet operations.

The public generally consider a naval base to be any place in which a fleet can, in case of need, drop anchor, sheltered from the winds and the fury of the sea. Possessing no technical knowledge, laymen have no idea of the conditions on which a port, roadstead, or any other anchorage,

THE STRATEGICAL PROBLEM

whatever its hydrographical characteristics may be, is suited to be used as a base for a naval force destined to operate in a determined strategical field. Therefore the public, having no guide except its natural criterion, which is nearly always inadequate, is often led to a false conception of the facts.

A port or harbour in which a fleet or part of a fleet can stay as long as necessary and have, if needed, the factors of its autonomy restored¹ is a real naval base, provided that it is so situated with regard to the enemy and his bases as to allow the fleet to do all these things in the best possible strategical conditions. This means that the fleet shall be allowed to do that while keeping ready to sail, at a moment's notice, for any part of the strategical field that it commands as soon as the necessity arises. "The base of operation," writes Bonamico, "is the brain that unites and harmonises the distinct functions of the entire body."²

In order to simplify the study of this question naval technology has defined the requirements to be kept in view in choosing a naval base, and has

¹ Coal or other combustible, water, food, ammunition, slight repairs, etc.

² D. Bonamico, "La difesa marittima dell' Italia," Rome, 1881, p. 36.

OF THE ADRIATIC

grouped them into two classes, under the denominations of *strategical characteristics* and *tactical characteristics*. At first sight these terms may appear abstruse, but it is easy to explain them and to show that they only mean things generally known or easily understood by everyone ; nothing, in other words, which cannot be described in the language of everyday use.

STRATEGICAL CHARACTERISTICS

These are all summed up in centrality with regard to the maritime basin that the base ought to serve, that is to say, in its geographical situation as regards the coast-lines of the basin and in the distances which separate it from the most important points of the basin itself. These points are the enemy's bases, the passages giving access to other basins, the zones of the enemy's shore which lend themselves to facilitate the possibility of invasion or simply the landing of troops to create a diversion, if the base is to be used as a central point of attack, and the similar zones of the national shore if the base is of a defensive character.

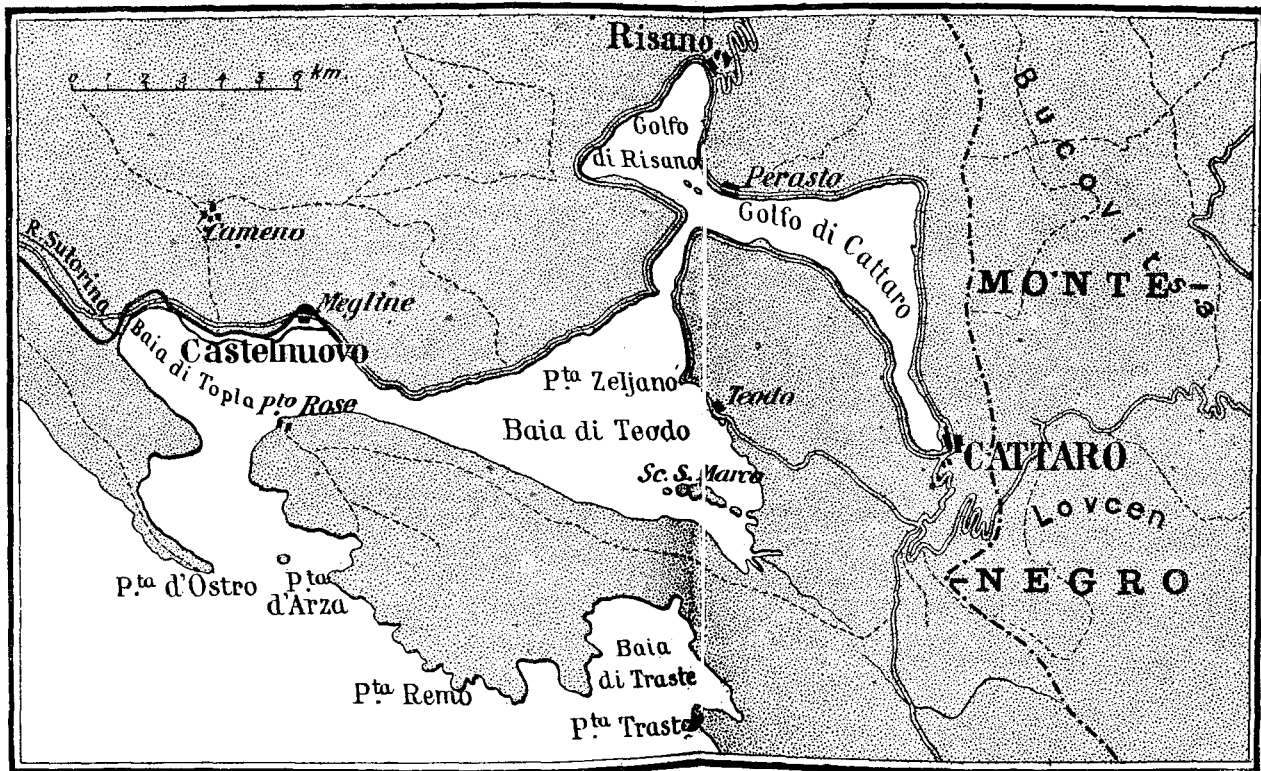
Centrality is most important, because, by considerably shortening the time necessary for the naval forces to sail to wherever the events of the war may call them, it indirectly increases their strategical capacity so far as it directly

THE STRATEGICAL PROBLEM

increases their autonomy. History teaches us that very frequently victory or defeat has been decided chiefly by time, which is the main element of autonomy.

Lissa, Spalato, Sebenico, for example, *from a strategical point of view alone*, are excellent as naval bases in the Adriatic; not so Venice, Brindisi, Vallona, and still less Taranto, on account of their very excentric situation with regard to the geographical formation of the maritime basin.

It is only with great difficulty, however, that the maritime defence of a determined basin can be based on a single centre. More frequently, indeed, the strategical imperfection of a naval base that under other aspects would be advantageous may be corrected by choosing subsidiary bases, so as to constitute, with the principal one, a *system* of bases. This solution, which is an adaptation of the theoretical to the practical, is much more useful to-day, because in modern warfare the scale, so to say, of the warlike means which enter into play is most extended. It reaches, in fact, from the gigantic Dreadnought, loaded with guns of every size, to the small torpedo-boat, the submarine, and to that great variety of small craft employed to combat submarine ambush.



THE "BOCCHÉ DI CATTARO."

OF THE ADRIATIC

The principal base of a system derives, from its co-ordinative functions, the name of strategical centre.

Had that superb group of ports, the "Bocche di Cattaro," been situated on the eastern shore of Italy, for instance between the Tronto and Sangro rivers, together with Venice and Brindisi it would have given Italy in her eastern sea an excellent defensive system of wide radius. Nature, however, in denying her the strategical pivot, has denied her the entire system, because as that pivot is wanting, the subsidiary centres lose a great part of their value as bases for a naval force, were it only by reason of the difficulties affecting their strategical intercommunication.

The strategical characteristics which are necessary in a site destined to serve as a complementary or subsidiary base are, with respect to the conformation, extension, etc., of that part of the hydrographic basin which this base ought to serve, the same as are required for a principal base. With regard to the latter, the essential conditions are: relative vicinity, facilities for communication, or, so to say, a way free of obstacles between the two, and the relative security of these lines of intercommunication, so that they may not be exposed to the risk of falling under the control of the enemy.

THE STRATEGICAL PROBLEM

It is clear that the strategical characteristics which a port or other anchorage ought to have, so as to serve as a naval base in a given maritime basin, are essentially geometrical and chorographical (typical of the country).

TACTICAL CHARACTERISTICS

The so-called tactical characteristics are almost exclusively topographical, or, to be more exact, hydro-topographical. We shall merely consider the principal characteristics, as these are numerous and varied and also in a certain way dependent on the class of ships to which the base is to offer refuge.

In former times, before the submarine took part in naval warfare, to deprive of nearly all its value that kind of naval operations called "*tactical blockade*" (that is, a blockade supported with a sufficient number of ships in the waters of the blockaded zone, so as to prevent its being forced by intervening immediately wherever the necessity might arise), one of the principal characteristics was, as Bonamico so well puts it, that of "allowing the ships on the defensive the power of eluding and forcing the blockade and rendering more difficult any siege operations which the enemy might undertake."¹

¹ *Op. cit.* p. 43.

OF THE ADRIATIC

To-day, when, besides the great facilities for laying minefields, the appearance of the submarine has almost entirely relegated to the past the "tactical blockade," it might seem that the above characteristics have lost the importance they previously possessed; but this is not so. The substance remains, that is, the part relating to the possibility of ships sheltered in a given base sailing out to sea when necessary, taking from the very beginning an advantageous position as regards the enemy. This characteristic, therefore, has changed the motive, but not the degree of its importance.

Now, this freedom to manœuvre ships according to the convenience of the moment whilst leaving a port, roadstead, or any other place of refuge, depends principally upon the conformation of the latter, and especially on the plurality of the outlets from the inner basin to the open sea, which allows the choosing of the most convenient way of exit. The more numerous these outlets and the more they are segregated one from the other, each being sufficiently roomy and perfectly practicable, the better will they answer the requirements of a given tactical situation; and these advantages will be enhanced if the topographical conditions are such as to hide the movements of ships from outside observation. To-day, as we know, this

THE STRATEGICAL PROBLEM

latter condition has little value, owing to the new methods of aerial warfare. An enemy's naval force in the vicinity of a base, if accompanied by squadrons of aircraft, can easily inspect, especially in daytime, the movements of defensive forces. To this new state of affairs, which certainly renders less important some of the tactical characteristics of a naval base as understood from a technical point of view, there is nothing systematic to oppose. Clever devices for manœuvring the ships can only, up to a certain point, neutralise the effects of the enemy's aerial vigilance; but the comparative liberty that aircraft enjoys in the work of observation will continue until anti-aircraft guns and marksmanship are so improved as to render the low flying necessary for efficient exploration extremely dangerous. We may therefore conclude that, apart from the conditions of plurality of the outlets to the sea, and their other characteristics as regards their relative situation, size, etc., the tactical value of these outlets will always be of great importance at night, or when observation from flying machines is impracticable; whilst in full daylight this value is limited or almost nil if enemy aircraft is active.

Having called attention to this question of the enemy's aerial observations, I shall not take it

OF THE ADRIATIC

into consideration in the general treatment of the subject and shall refer to it only when occasion arises; that is to say, when it is necessary to point out how far aerial observation may affect the tactical value of the hydro-topographical characteristics of a naval base.¹

To speak of a fleet taking refuge in a naval base implies nothing more or less than the necessity of defending it from eventual actions on the part of the enemy, even though the base be particularly used for offensive purposes. The fact of a base being more or less easy to defend depends almost entirely upon its hydrographical and morphological conditions. A gulf the shores of which are very indented, with numerous creeks and inlets penetrating deeply inland between high mountains, is the type that offers the best means of defence. The subdivision of the surface of the inner waters into different parts, all well protected, may allow of a useful distribution of the vessels and of all the services which must be concentrated on the spot to maintain their efficiency. The height of the shores and their orographic conformation may add to the defensive value, inasmuch as these

¹ The group of the Maddalena islands together with the adjacent coast of Sardinia is one of the most perfect types of a naval base with many openings; the same can be said of Pola with the Brioni islands opposite.

THE STRATEGICAL PROBLEM

characteristics facilitate observation seawards, and favour the construction of fortified works, of anti-aerial batteries, etc. These natural conditions comprise another of the principal tactical characteristics of a naval base.

We must not forget that, notwithstanding external defensive works of every kind, and the submarines with which the commander of the base may be able to threaten an advancing enemy, the latter may show himself in full force in front of a naval base and oblige the defending ships to make a sortie. This contingency, which for motives of prudence must not be forgotten, although there is little probability that it may occur, leads us to consider how important it is that on leaving their base the forces of the defence should be enabled to form before the enemy into the most advantageous line of battle. It is impossible to foresee what this line shall be, as its choice will depend upon that taken up by the enemy. The local hydrographical conditions should therefore permit the defensive forces to form according to circumstances on their setting out to sea.

The plurality of outlets, although practically increasing the tactical value of the defending fleet, may not suffice, as above stated, to ensure it full liberty, unless their outermost zones are

OF THE ADRIATIC

so wide apart as to allow of its manœuvring, possibly in hidden waters, and taking a tactical initiative before the enemy takes or interferes in it. This means that the possibility of the defending fleet facing the enemy on a pre-arranged battle-line depends entirely on the hydrographical conditions of the base.

A squadron, for example, that had to set to sea from the inner basin of Venice in the circumstances we have just mentioned, forced as it would be to follow the fixed lines of the lagoon canals, would find itself in a greatly inferior tactical position as compared with the enemy, quite free to manœuvre, awaiting it outside. Nor would this inferiority cease until, once out of the canals, and all submarine defences overcome, without having been seriously damaged, the squadron could form into a suitable line of battle. But it is not to be supposed that a shrewd enemy, if sufficiently strong, would not take advantage of his tactical pre-eminence, even if merely momentary, so as to prevent his adversary from getting out of the canals. On the contrary, a naval force which, in similar circumstances, had to sail out of the estuary of the Maddalena would find, in the different and more or less ample ramifications of the canals of that archipelago, favourable conditions for attempting to ensure for itself that initial tactical

THE STRATEGICAL PROBLEM

superiority over the enemy's forces which comes from being able to take an advantageous position in time.

A strategical centre ought to be capable of receiving, when necessary, the entire fleet, when required to serve as a base for it. But to-day, when we speak of a fleet, we no longer mean simply an assemblage of big ships, but rather a vast and complicated organism, composed of a number of elements, most varied as regards size, type, and the special functions assigned to each. The number of units requires a corresponding amplitude of inner basin practicable for them, and their variety makes the indentations of the shores particularly useful for their rational distribution. These, however, are not necessary, because there are other ways of providing for a systematic distribution of the different type of vessels composing a fleet.

The amplitude of the inner basin is, then, another of the principal tactical characteristics of a naval base.

The extensive use that modern warfare makes of aircraft, and the consequent falling away of the protective efficiency afforded by the plastic conditions of the ground surrounding an anchorage, have rendered it necessary to set up anti-

OF THE ADRIATIC

aircraft batteries sufficiently powerful to create around a closed basin that serves as a refuge for ships one or more screens of fire through which it would be difficult for the enemy's aircraft to penetrate uninjured. The position of these batteries is necessarily dependent on the character of the ground on which they are to be emplaced. As a natural consequence, in considering the tactical value of a naval base, its morphological conditions form an important element, and the nature of the shores of the inner sea acquires a correspondingly tactical importance.

To sum up what has been said, the principal tactical characteristics required so that a port, a gulf, a roadstead or other anchorage, can be utilised as a naval base are :

- (1) The number, amplitude, and conditions of the openings to the sea, their situation and relative distances, and natural protections ;
- (2) Indentations of the shore and pronounced heights ;
- (3) Amplitude of the inner basin that is to be used as anchorage.

As a rule, when the sheltering of a naval force in a given base, principal or subsidiary, proves convenient from a strategical point of view,

THE STRATEGICAL PROBLEM

the tactical characteristics of this base, if suitable to receive a group of battleships, will be sufficient also to shelter small craft of every kind that must necessarily accompany it. There are cases, however, in which, whilst the strategical convenience for sheltering battleships in a given base is lacking, nevertheless it can be utilised as a centre for small craft. In these cases, whilst characteristics (2) and (3) (indentations of the shores and surrounding heights, and amplitude of the inner basin) are less important, that of the large number of openings (1) with their accessory characteristics, as described above, would retain all its importance.

Thus we see how the lagoon of Venice—quite unsuited to shelter, except temporarily, large units—lends itself remarkably well, on account of its tactical characteristics, to a concentration of torpedo-boats and other craft.

Insufficient elevation of the surrounding ground, which as regards big ships would doubtlessly constitute a remarkable defect, is no longer so with regard to small craft, so widely used in modern warfare.

ORGANIC PREPARATION

In the summary definition we have given of a naval base we stated that a naval force using

OF THE ADRIATIC

it should be allowed to restore, if necessary, the elements of its own autonomy. It is not, however, necessary that an arsenal should be erected there. A naval base need only be provided with fuel, provisions, ammunition, materials, etc. There should be plenty of water, and means for quickly supplying vessels with all these things, and the necessary works to carry out repairs not necessitating ships being put into dry dock. The organic preparation of a naval base consists in providing for all such requirements. The arsenals, the great centres of naval production, are adapted rather to serve as places in which ships withdrawing from the field of battle may take refuge for repairs or other work requiring some time to execute. From this point of view Brindisi and Vallona, with Taranto as a refuge-port in their immediate vicinity, constitute a complete organic system.

TEMPORARY STATIONS

Naval bases, either principal or subsidiary, and refuge-ports are the supports on which the fleet should always be allowed to rest as long as necessary according to circumstances of war; but they are not the only places where a naval force can find temporary refuge. It may be

THE STRATEGICAL PROBLEM

that the national shore, on account of its orographical conformation and hydrographical characteristics, presents other suitable places where ships can take refuge for a short time in case of urgent need. For these special shelters strategical and tactical characteristics are not necessary, neither are special organic conditions. The question of selecting such places will depend on the course of events. The exigencies of the moment, and the possibility of preparing ships for defence with their own appliances during their short stay, are the only conditions to be depended upon.

The only necessary tactical characteristic that temporary refuge stations need possess is the possibility for the ships to avoid being discovered by the enemy's searching service.

ERRORS TO BE AVOIDED

If there are subjects for study that deserve to be qualified as "positive," among these certainly is the organisation of the national territory for defence by land or sea.

Strategy, taken in the widest sense of the word, is not an exact science with real laws of its own. It is a science in which common sense and a practical sense of things nearly always preponderate. But these special attributes of human intelligence are not sufficient to bring



OF THE ADRIATIC

out good points in the field of military art, which is an eminently technical field, unless they are accompanied by technical preparation and by suitable experience. We must then always be on our guard against free and easy judgments which are always the result of impressions, and which due consideration will nearly always dismiss. We must guard against being misled by imaginary and rhetorical phrases or comparisons, which are frequently resorted to by writers little, if at all, qualified to discuss questions and problems of this kind. The eloquence of an image, the appropriateness of a comparison, often result in leading the uninitiated, and sometimes also even experienced people, astray if they are not naturally endowed with the habit of reflection. Frequently through imaginary and inappropriate comparison false ideas are set afloat in public opinion, the influence of which may be felt even during the course of official studies.

The Adriatic—unlike the Mediterranean, which, on account of obvious political reasons, scarcely interested outsiders—has attracted many writers, some of undoubted merit, and has led them to spread ideas in a field that is erroneously considered open to all. In most cases these incautious trespassers in naval-military science have spread errors. The periodical press also, by publishing, in a general way and without properly

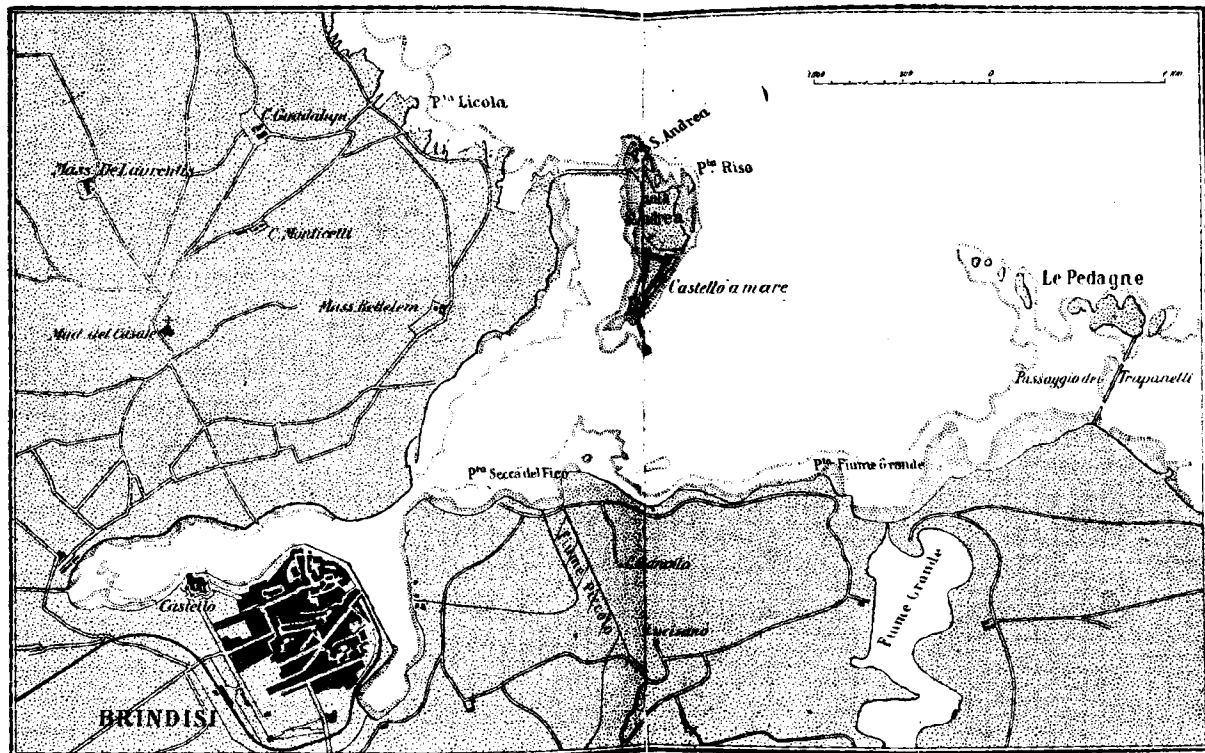
THE STRATEGICAL PROBLEM

examining them, articles written by persons of little or no authority, or articles merely improvised, has contributed largely towards spreading errors, thus helping a deplorable confusion of ideas to penetrate amongst the public.

“The Adriatic is a sack: it is only necessary to hold the opening and we shall be its masters.” This statement, which is altogether wrong, is founded on an illusion, and has unfortunately led public opinion to accept the erroneous idea that Brindisi and Vallona, as naval stations, command the Adriatic. The exaggerated importance that many give to Vallona as a naval base for the Adriatic has originated chiefly from the sentence quoted.

The Adriatic is a sack only in physical geography, because it is a maritime basin entirely surrounded by land, without any other opening except that afforded by a channel about 40 miles wide. But leaving aside physical geography and considering human and social geography, we soon see the sack presenting a long rent on its eastern side, that reaches from the Austro-Italian pre-war frontier to Vallona. That rent allows the entrance of other peoples, who, for the moment, possess the whole of that shore and take full advantage of it.

Consequently, Brindisi and Vallona are not *the keys of the Adriatic*, as it has pleased many people



BRINDISI.

OF THE ADRIATIC

to call them. They are two sentinels guarding the channel of Otranto, or rather the two posts of the gate which, if necessary, can close this channel. But, as regards the basin of the Adriatic, they are nothing more than two naval stations, the importance of which does not reach any farther than the southern part of it. The closing of the Otranto Channel during a war with the Austro-Hungarian Monarchy most certainly would result in intercepting Austro-Hungarian traffic with the ports situated outside the Adriatic. It would also mean intercepting the route for Austrian warships trying to get out of this sea, or, still better, prevent them from returning if they had succeeded in getting out; but by no means would it give uncontrolled power over the enemy's fleet, nor even weaken the enemy by depriving him of some of his naval bases.

The Austrian naval programme has always been of an offensive character against Italy. Conceived and developed in opposition to the treaties of Campoformio and of Lunéville—"scraps of paper" according to Austria's conception—both of which forbade Austria to erect fortifications on the eastern coast of the Adriatic and build warships, that programme was developed and carried out to its present extent even whilst the Triple Alliance was

THE STRATEGICAL PROBLEM

in full swing. The closing of the channel of Otranto would affect the naval resistance of Austria-Hungary only in case of a war in which the Dual Monarchy was politically isolated and forced to depend solely on itself for provisions. But as we refer to the present war, we are forced to recognise that this influence, if not entirely nil, is nearly so, because Austria provides for the necessities of her existence by other channels, all of them inland.

The importance of Vallona, as regards Italy's interest in the Adriatic, is derived consequently from one necessity only, and a very clear one, namely, that of preventing others from taking possession of it and using it against herself. This, in its frank simplicity, is both the definition and the measure of the strategic value of that bay in reference to the Adriatic basin. Beyond this there is nothing but imagination and error.

And following in the track of errors, let us now talk about Venice.

Who is there who does not remember how many discussions there were, even in Parliament, on the question of upholding, on the strength of its historical memories, glorious but now deprived of all value as regards naval and military matter, the reputation of the magnificent Queen of the Lagoons as a naval base for the Adriatic? The seafaring

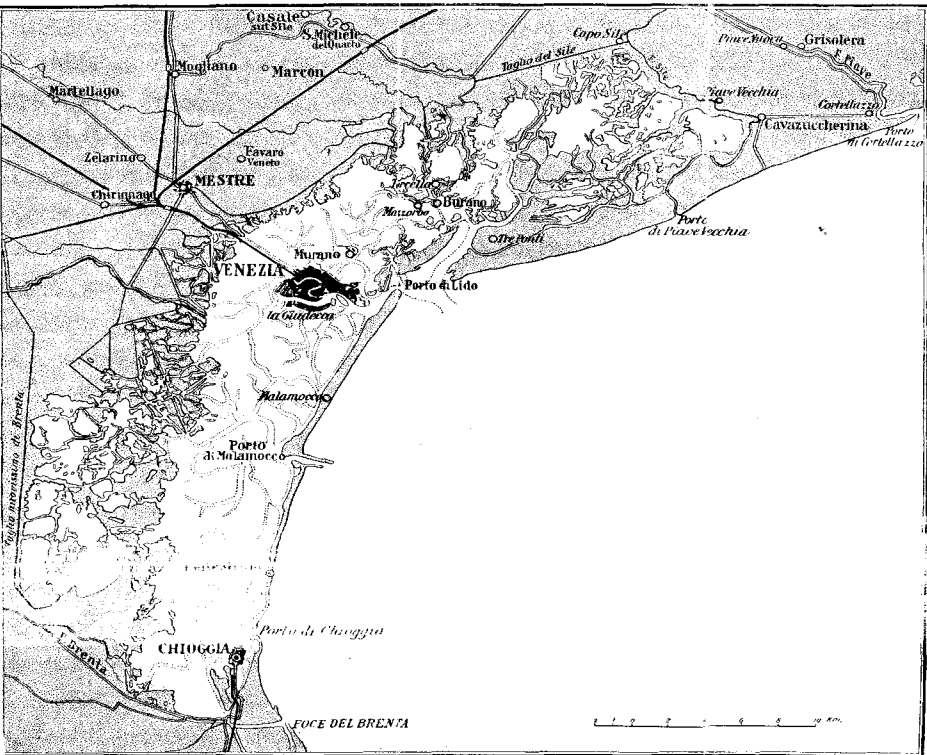
R.I.G.S.

G. Roncagli. The Strategical Problem of the Adriatic.



VALLONA.

To face page 34



VENICE AND ITS LAGOONS.

OF THE ADRIATIC

glory of the Venetian Republic, the presence of the historical arsenal, the fascinating network of its canals, have all resulted in giving credit to the false belief that Venice, formerly a first-class base for the fleet of the Serenissima, has not lost its outstanding importance, notwithstanding the progress of time and the changed conditions of things. It seemed to many quite impossible that, as in the past Venice added the honourable ensign of a great naval power to the other magnificent gems in her crown, she should have no means to-day for upholding that power.

So far back as 1881, Commander Bonamico declared that Venice should be considered as a maritime frontier fortress, just to give room to an offensive operating fleet, rather than to a defensive one;¹ and elsewhere, speaking of the defensive organisation of the Adriatic, he assigned to her merely the function of *defensive centre*, meaning by this a place capable of giving room to and keeping in perfect safety "all vessels of no use in warfare."² But Bonamico's masterly works are known only to technical students of naval matters. They were never published in a popular form. Technical students would not even deign to explain in intelligible terms all the principal rules for the military defence of their Motherland. How many errors, how many

¹ *Op. cit.* p. 215.

² *Op. cit.* p. 54.

THE STRATEGICAL PROBLEM

false beliefs, would have been avoided, above all, how much time would have been saved, if those who were in a condition to do so had understood in time the importance of putting this knowledge within the reach of all! Unhappily, public opinion has never been taken sufficiently into account in military circles. We should not be in the position in which we now are, whilst the most atrocious war is raging, and daily events show us more and more the impelling importance of the Adriatic question, of trying little by little to enlighten the confused ideas now prevailing, all of them to our evident prejudice. But let us return to the point, begging of the reader to forgive this digression.

To-day not even the character of a defensive centre is left to Venice. There are no longer vessels useless for warfare to be stored away in safety, because there is hardly a barge afloat that cannot be utilised for war purposes; and war from the air, by partly depriving anchorages of their defensive characteristics, has made it necessary to avoid as much as possible agglomerations of naval material.

But above all, when we speak of Venice we must make a clear distinction between the city and the lagoon. As a city, Venice is no longer of any military importance. It is an open city, just as Milan, Florence, and Palermo are open

OF THE ADRIATIC

cities. On the contrary, the lagoon, in the whole of its extension, is a real entrenched maritime camp, having also the character of a frontier station, where ships of a suitable size could, in case of necessity, be kept ready to carry out important operations on the right wing of an army advancing east of the Isonzo river. We had an example of this fact during the present war, before the retreat in October, 1917; and we still see the utility of the lagoon of Venice as the extreme support towards the sea of an army drawn up in line of battle along the Piave river, and a refuge for the fleet operating along the coast in support of the troops. Consequently, the lagoon holds a secondary place in the defensive system of the Adriatic, specially adapted, however, as we have already said, for sheltering a large number of smaller craft and torpedo-boats; but it can never become a strategical centre for the defence of the Adriatic. We shall see further on where Nature has fixed this centre.

CHAPTER II

THE MILITARY IMPORTANCE OF THE TWO SHORES COMPARED

THE EASTERN SHORE

A DEFENSIVE system for the Adriatic in the present political conditions, that is to say so long as the eastern shore is in the hands of a strong military adversary, has now become a problem almost impossible to solve. I say "has become" because formerly, that is before the undersea snares, with mines and submarines, so generally employed, had greatly increased the tactical importance of the labyrinths on the Dalmatian coast, all to the advantage of Austria, there was a certain possibility of solving this problem.

Salvatore Barzilai, commemorating our naval hero Nazario Sauro, at the Augusteum in Rome, on April 21st, 1917, in the presence of the *élite* of the city and important representatives of the Royal Navy, very aptly quoted the words with which this simple but experienced sailor expressed the strategical value of the eastern

shore according to his idea: "High shore of a channel which dominates the low shore opposite." This is a specimen of realistic imagination full of practical meaning, not a flight of rhetoric.

Art, science, and technical skill, applied to warfare as broadly as we actually see, have considerably improved these undeniable natural advantages. It is in the power of the State which rules over Dalmatia to render its sea labyrinths absolutely inaccessible to the enemy's ships, and to turn them into so many inviolable centres for lying in wait, to spy on and ensnare those on the opposite coast. On the contrary, on the Italian coast no art, science or technical skill can succeed in raising anything whatsoever that could afford defensive importance to the monotonous uniformity of our flat shores, utterly wanting everywhere in every natural defence, and consequently of no strategical or tactical value.

The obvious conclusion is that the destruction of that bulwark of the enemy opposite is a vital necessity for Italy, and there is only one way to accomplish it, and that is to reconquer and strongly maintain that other shore. By no other means can Italy ensure a complete naval defence of the Adriatic.

Consequently, what we have already said with regard to Vallona applies to this case also. The

THE STRATEGICAL PROBLEM

necessity that Italy is under of ensuring for herself a strong position on the eastern shore of the Adriatic arises directly from the necessity of preventing its being occupied by others.

By the mere fact of possessing that coast, any Power that was hostile to Italy would hold in its hands the most formidable means of dominating her.

This, however, is but the *prima facie* view. We must now show how positive reasoning confirms it. Still more, we must show how positive reasoning, above all, leads to the above conclusion. We have not laid it down from a wish to force logic, but merely because intuition precedes reasoning.

In the military problem of the Adriatic, the territory of Dalmatia is of the utmost importance; but in order to view the problem in its proper light we must consider this territory in its whole complex of lands emerged from the sea west of the Dinaric watershed. It is neither helpful nor practical to treat, as some writers have done, its continental and its insular parts separately. In considering Dalmatia from the standpoint of military defence, we cannot study the shore with its islands except as a continuation of Istria, and of the islands that, geographically speaking, belong to it.

OF THE ADRIATIC

From the Quarnero to the Bocche di Cattaro, this territory presents itself as made up of two parts clearly distinct as regards their different tactical value in naval warfare. A dividing line might be traced, more or less, to the south of Spalato, so as to leave the islands of Brazza, Lésina, Lissa, Cùrzola, and the smaller ones of this group, to the south. This is not an artificial or in any way conventional division: it is a real morphological division founded principally on the horizontal configuration (outlines) both of the mainland and of the archipelago in front of it.

To the north of that line the principal continental block of land is to be found, as well as an archipelago of numberless islands. These islands as a whole, and with the numerous maritime channels they enclose, constitute an oro-hydrographical system characterised by the parallelism of the coast-lines, both between themselves and in regard to the Dinaric Alps, and the minute insular fractions. The curve of the Dalmatian coast from Spalato to the island of Pago, and the more accentuated one of the Liburnian arch, from the end of the Canale della Morlacca to Fiume, are both closely accompanied by the chains of islands that run along them, including numerous channels all parallel to one another, and practically closed westwards, on

THE STRATEGICAL PROBLEM

account of the sea penetrating between the islands only through very narrow passages.

To the south of this line the coast is much less indented, and the insular fractions less pronounced. Those chains of small islands which form, so to say, breakwaters protecting the inner waters, and are at the same time magnificent screens hiding the channels, are not to be found there. In this second part the islands are few and they are nearly all large, with wide open channels between them, and above all no longer strictly parallel to the coast, but in a curve which detaches itself from the mainland near Ragusa, and turns definitely towards the Italian coast, more or less in the direction of the Garganic region. From Ragusa to Antivari the eastern coast faces the open sea without any screen of islands.

The indented character of the shore, both on the mainland and on the islands, is more pronounced in the northern than in the southern zone.

Following the coast upwards from Spalato to Quarnero, and penetrating into the archipelagoes, beyond the marvellous natural ports of Spalato (Baja Castelli with Salona), Traù (with Bossoglina and Saldona) and Sebenico, to mention only the principal ones, there is no channel between the islands, or roadstead or gulf that opens into

OF THE ADRIATIC

the high coast of these or of the mainland, in which a ship could not take refuge. Big ships, as well as small ones, can easily, if necessity arises, not only anchor everywhere, sheltered from bad weather and out of sight of the enemy, but can also sail along inside channels the whole way between Punta Planca and Fiume, that is to say, over 140 miles. Better conditions could not be hoped for, either for the purpose of escaping pursuit or for manœuvring according to the movements of an enemy cruising outside the insular barriers, and, in case of need, getting out to sea by one of the many passages between the islands, choosing the outlet according to the tactical convenience of the moment. And there is no gulf, bay or creek, small though it may be, where depots, works, hangars, and buildings of one kind or another for the use of the fleet, and generally of the Navy, cannot be erected. There need be no hesitation in saying that in all the Mediterranean there is not another place that can furnish so many excellent tactical characteristics or organic possibilities distributed with a nearly perfect uniformity over so extensive a sea area.

On the other hand, south of Spalato the tactical importance of the anchorages and other positions is greatly diminished, on account of the smaller number and different situation of the islands and

THE STRATEGICAL PROBLEM

the fact of the channels being much wider and running in quite a different direction. Whilst in the northern zone it is the common characteristic for the principal channels to have their openings to the north-west and the south-east, that is to say, on lines parallel to the principal axis of the Adriatic, in the southern one the channels open straight out to the west, that is, to the open sea. This condition, together with their wider openings, is certainly less favourable for hiding the strategical movements of a naval force intending to create or modify a given tactical situation to its own advantage.

We have not taken into consideration the depth of the sea (subaqueous morphology) because in both zones any ship can safely sail whatever her draught of water may be. There are very few spots where an elevation of the submarine soil forms a dangerous bank ; and the few existing obstacles of this kind are all well known and do not detract in any way from the strategical and tactical importance of this so singularly fortunate shore.

It will be well, however, to consider more attentively the characteristic of vertical morphology, because this proves that in all the great Istrian-Dalmatian archipelago, nearly as far as Ragusa, there is no land emerging from the sea

that cannot serve as a screen for any ship whatsoever, thanks to its elevation. To mention only a few of the lowest islands, there is the small but now glorious Premuda (270 feet), which acts as outside edge to the Selve channel, and there are Selve (240 feet) and Ulbo (216 feet), which have the additional advantage that one of these islands hides the other from the view of any observer on the open sea. And whilst the extreme point of the island of Cherso is only 150 feet in height—sufficient to hide ships coasting on the eastern side—there is Lussin, rising up in front of it, with elevations that vary from 1,800 feet at the northern extremity to little more than 300 feet in the central part, rising again to 600 feet at the south. Lussin, which, with Asinello to the south, forms the other dyke closing the Selve passage to the north, looks as if it had been purposely placed there by nature so as to continue with Cherso the strategical and tactical defence of the Quarnerolo Channel.

This example is one of thousands that could be mentioned in describing the marvellous natural military works along the eastern side of the Adriatic.

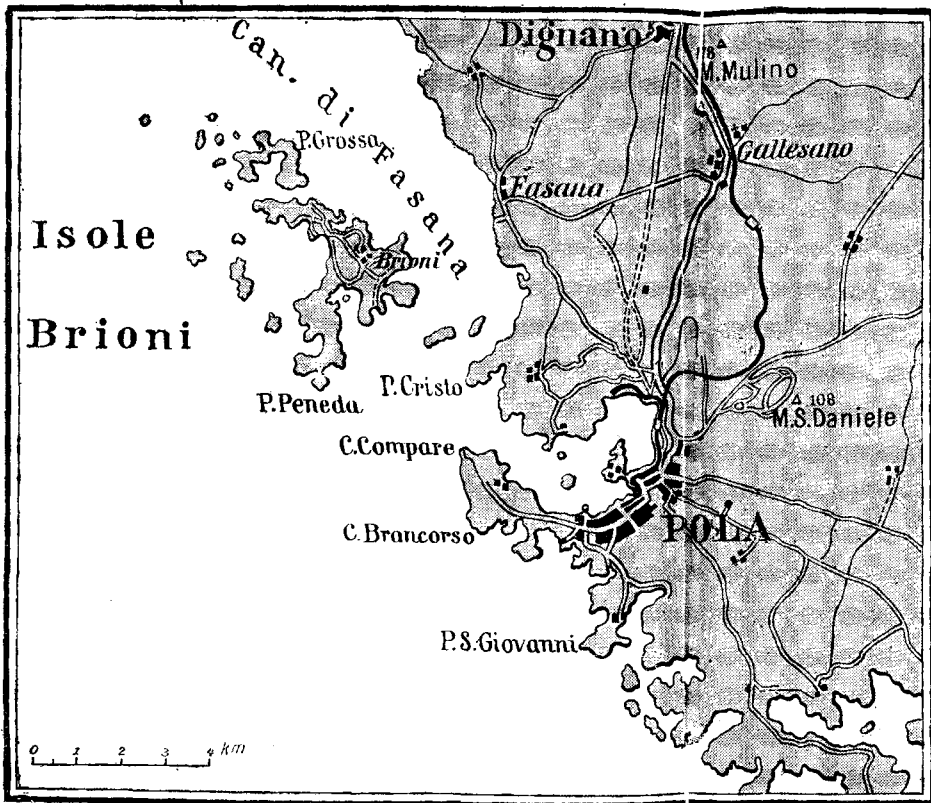
Moreover, if we study more closely the relative situations of the different chains of islands, each group, and each island in a group, we shall

THE STRATEGICAL PROBLEM

find that there is hardly any point out at sea from where, approximately between Punta Planca and Cape Promontore, the eye of an observer, placed no higher than the top of an ordinary mast of a big ship, can penetrate beyond the outside barrier of islands. Only aerial exploration, when practicable, can penetrate inside these natural barriers.

One must not conclude, however, that in the southern zone, between Spalato and Cattaro, similar characteristics are not to be met with. The difference between the two zones consists in this, that these characteristics are less accentuated in the south; they are distributed at longer intervals and are, above all, wanting in regard to their tactical function, which is to hide from outside view the movements of ships manœuvring in the inner channels.

With this description, which might be lengthened indefinitely without being obliged to modify it in any substantial way, we have placed in a perfectly clear light the great and singular military value of the eastern shore of the Adriatic, considered—as we promised it should be—in all its length, from the Quarnero to the Bocche di Cattaro, and its mainland and insular whole. Further on we shall consider its strategical value.



OF THE ADRIATIC

In all the rest of the shore not belonging to Italy only the peninsula of Istria presents morphological characteristics of any military importance. In the numberless breaches of its Carsic conformation, from Trieste to Fianona, it can shelter ships of all sizes. And Pola, with the group of the Brioni islands, constitutes beyond doubt an excellent base perfectly well fitted from every point of view to cover Trieste and favour the carrying out of operations in the upper Adriatic. But from Cattaro downwards, as far as Vallona, the coast is nearly everywhere low, entirely lacking in natural defences. The ports of Antivari, San Giovanni di Medua, and Durazzo are of no military value; and with regard to Vallona, there is nothing to add to what has been said above.

THE WESTERN SHORE

Taken as a whole, the opposite, that is to say the Italian, shore, when compared with the eastern one, might well be called a cruel joke of nature.

From the pre-war boundary as far as the Cape of Santa Maria di Leuca, it consists of a uniform line, without a break inland, with hardly any relief to the monotony of its conformation. Mount Cònero of Ancona, the Gargano, and

THE STRATEGICAL PROBLEM

the table-land of the Puglie, reliefs which—irony of nature—belong geologically to Dalmatia, have none of the magnificent characteristics of the horizontal morphology of the opposite shore. The very gulf of Manfredonia is too wide and open to be of any military importance. The only exception is the small break at Brindisi, in a most excentric position with regard to the Adriatic basin, and with very insignificant tactical characteristics, which have been slightly improved by artificial means during the last two years. All along this shore there is not a single island, with the exception of the small and, as regards military purposes, almost useless group of the Trèmiti. There is not even one of those grand subaqueous archipelagoes that in other geographical regions constitute formidable means of natural defence; not even a sandbank, nothing. Everywhere open shores, upon which the sea breaks, but where, so long as the wintry north wind is not blowing, or the sirocco is not too strong, any kind of ship can always approach near enough to carry out actions against us. I do not even speak of the facilities for landing. So long as the weather is not too bad anyone can land wherever he likes.

But almost as if these conditions of military inferiority, as regards the opposite shore, did not suffice, Nature has done her best to accentuate

OF THE ADRIATIC

them in every way. Taking into consideration the direction that both shores take, perceptibly parallel one to the other, a singular fact, to our disadvantage, is verified, the importance of which can be appreciated at its real value only by experts in navigation—a fact to which the present war, with its special strategical and tactical play, only adds special importance.

Both shores run in a somewhat north-west to south-east direction. In consequence of this, and taking into consideration the distance between the two shores and the speed of modern ships, it happens that an expedition which leaves the eastern coast during the night to carry out any kind of surprise action against our shore, on arriving just before dawn in view of the mainland, will always have the sun at its back, thereby finding itself in the best possible position for action. On the contrary, an expedition sailing from the Italian shore for a similar object, to carry out which it would be necessary to await daylight, would always have the sun in its face, and would thus be placed in the worst possible tactical conditions from this point of view.

Furthermore, the following physical characteristics of the Adriatic Sea should be remembered, owing to the peculiar influence they have upon naval warfare. During north-easterly winds—

THE STRATEGICAL PROBLEM

which prevail especially in winter—the sea remains sufficiently calm all along the eastern coast. On the contrary, along the western one (Italian), navigation often becomes dangerous, if not altogether impossible. Off the Dalmatian coast the depth of the sea everywhere causes great difficulties to be met with in laying mines, whilst shoal waters everywhere along the Italian coast make it very easy for the enemy to do so to our disadvantage. On the other hand, on the Italian side the water is always more or less muddy, so that Italian aircraft cannot easily succeed in discovering mines laid by the enemy. On the contrary, off the Dalmatian coast the water is nearly always perfectly limpid, so that the enemy can easily discover and remove at once any mines we may lay there. Finally, the direction of the currents gives the enemy excellent facilities to send drifting mines to our shore, whilst we cannot do the same against him. Considering these natural facts, nothing more is wanting to convince us that the Italian peninsula has been unfairly handicapped by Nature on its Adriatic side.

THE PROBLEM OF THE STRATEGICAL CENTRE

If we now consider the relative position of the two shores, after having made quite clear, by

OF THE ADRIATIC

this rapid analysis, the tactical value of both, we are more than halfway on the road to understand also their relative strategical value. Yesterday, as to-day, but to-day without doubt more than yesterday, on account of the changed strategical, tactical, and organic conditions in which naval warfare can be carried out, the strategical value of the Italian coast is little more than nil, whilst that of the opposite side in general is very great, and particularly so that of the Istrian-Dalmatian coast from the Gulf of Quarnero to Cattaro.

In dealing with the strategical characteristics of a naval base, we have seen that the most important of these is centrality with regard to the strategical basin; and we have explained why it is so. By merely glancing at a map of the Adriatic one can see that a coast like that which we have been considering, situated just opposite the Italian shore, which runs parallel to it from the mouth of the Po as far as Brindisi, is, as a whole, a strategical centre as regards the latter; all one base, in fact.

In 1881 our great naval writer, Commander Bonamico, wrote as follows:

“The basin of the Adriatic presents in itself particular varieties of naval warfare worth studying with care, on account of the impelling necessity, in a war both defensive and offensive, of choosing

THE STRATEGICAL PROBLEM

as base of operations some point on the enemy's coast advantageously situated as regards the principal object of the campaign. As, however, the position of the Italian strategical centre is liable to change whilst that of the Power that will probably be our enemy is permanent, and as this relative position will radically modify the naval operations, according as these would gravitate towards the north or the south of the parallel of Fasana and of Pola, it is not possible for me to take into consideration a question so complex and so delicate, both as regards politics and from the point of view of our maritime future, and which can only be studied in a competent manner by a special committee"¹; and farther on he says:

"The Adriatic basin offers no strategical position on the Italian shore. The absolute necessity of securing one, as our defensive centres are lacking, would make it advisable to outline roughly from this very moment the most likely schemes, choosing from among the numberless positions that the east coast offers those that would best answer to the kind of war we shall have to fight.

"Consequently our strategical centre is on the eastern coast."²

With these just considerations Bonamico very

¹ *Op. cit.* p. 113.

² *Op. cit.* p. 215.

OF THE ADRIATIC

clearly stated, even at that time, the necessity of establishing a base on the Italian, that is the eastern, side. But this distinguished writer, whilst treating the problem in a general manner, without any reference to any exact political situation, did not go beyond fundamental laws; and whilst he was very far from considering the case of a world conflagration, yet without actually saying it, and with the necessary prudence (we must remember that he was writing at the time of the Tunisian question, that is to say, shortly after Italy entered into the Triple Alliance), he clearly followed the hypothesis of a war against Austria alone. On that account he foresaw the eventuality of naval strategic pressure being localised to a part only of the Adriatic Sea. That under such conditions he thought it advisable not to go beyond a general indication ("some point on the enemy's coast advantageously situated as regards the principal object of the campaign") in pointing out the necessity for choosing a base is only a matter of course. In any case, however, on account of this indefinite expression, people might clearly understand that all the eastern shore presented a large field of choice.

Presently, as we are not now prevented, as Bonamico was, from discussing this problem more openly, we shall consider the question in full,

THE STRATEGICAL PROBLEM

as he certainly did, although keeping within prudential limits in writing for the public.

Supposing that we should have to wage war in the Adriatic against a naval Power ruling over the eastern coast, no matter whether this war was localised to this sea or not, the necessity urged by Bonamico (and recognised afterwards by all who wrote on the subject) of choosing our strategical centre on the eastern coast would be as imperative as it formerly was. Still the technical conditions of actual naval warfare are such as absolutely to prevent us from acting in accordance with it; and the future will certainly not prove, from this point of view, a return to the past. The relative strategical situation in the Adriatic is now—and would be in future so long as the present political situation is unchanged—the following: On one side the widest possible field of choice for more or less important strategical centres in a war against Italy, should it either be of an offensive or of a defensive character; on the other side, the impossibility of procuring a good strategical position to make it a base of operations.

Thereby the necessity of changing the political situation with regard to the eastern shore, so as to alter the relative strategical situation in case of war, appears thoroughly evident. And to

change the political situation with that view can mean nothing else than to establish an Italian political dominion there. We shall now only consider where and within what limits this Italian dominion ought to be established so as to correspond in a satisfactory manner to military requirements. This is the most difficult and most controversial part of the question, as it excited and still excites the fervour of popular writers. But as popular writers are nearly always inspired by political and social idealism, the conclusions they draw are very frequently in contrast to the real military necessities, too often generally ignored or neglected by those who are not endowed with technical knowledge.

CHAPTER III

WAR LIMITED TO THE ADRIATIC

IT should be constantly borne in mind that we are discussing the defensive problem of the Adriatic, not that of an offensive war. That in a defensive war it may be also necessary to carry out offensive actions is clearly understood ; but such a strategical necessity would never alter the general defensive character of the war.

Keeping this principle in mind, we shall be in a position to understand the defensive value of the eastern shore of the Adriatic with regard to the western one.

In speaking of Zara, of Sebenico, of Spalato, of Cattaro, and of the Istrian-Dalmatian archipelagoes as naval bases, and insisting on their strategical and tactical importance, we merely call attention to the good fortune of anyone who, possessing those positions, looks at the opposite shore as upon an enemy whom he will be obliged to deal with some day or other. This is the case of Austria as regards Italy.

THE ADRIATIC PROBLEM

But would that good fortune remain the same in case those positions passed under Italy's dominion, and if they were eventually menaced from the line of the Dinaric Alps, instead of from the Italian shore? This is the question that we must put, if we wish to place the problem of Italy's naval defence in its proper light. And this is the first question that we must answer.

General Perrucchetti, in an article he wrote barely twenty months ago, the last, perhaps, by that great military writer, very wisely said—what thinkers and writers of great authority on this subject had frequently expressed before as the only conclusion they could arrive at—“If Italy does not dominate the Adriatic, she herself is dangerously dominated by it.”¹

The answer to the question just mentioned lies in this sentence; and it is interesting to see how the conclusions arrived at by trained minds and the clear intuition of the simple sailor both agree. “The Adriatic can be dominated only by its elevated shore,” Nazario Sauro used to say; and substantially this is the same as the saying of Perrucchetti.

But let us consider the question independently and examine its merits.

¹ General Perrucchetti, “Trieste e l'Adriatico,” in *Giornale d'Italia*, August 21st, 1916.

THE STRATEGICAL PROBLEM

FIRST HYPOTHESIS—THE ITALIAN BOUNDARY AT THE WATERSHED OF THE DINARIC ALPS

If the Italian boundary were fixed at the watershed of the Julian and Dinaric Alps, as far as and beyond Cattaro, that would mean the driving of Austria from the Adriatic. Then, both shores being Italian, the defensive problem of that sea, and consequently of the peninsula from that side, would be quite different from the present one and would, moreover, partly become a problem of territorial warfare.

I certainly do not wish to put myself forward as an authority, as there are many others better able to suggest in what way Italy ought to provide for the defence of the new continental frontier. To keep strictly within the limits of naval defence, my only desire is to base the discussion upon the most unfavourable hypothesis, and I shall do so on the supposition that the enemy, from the Balkans, crosses the Dinaric Alps, rushes into Dalmatia, and reaches the sea-shore. I am not considering the supposition of a descent from the Julian Alps by the classical pass of Nauporto, the military importance of which was well known to the Romans, who erected a strong fortress to close it. I shall not take this consideration into account because I propose

OF THE ADRIATIC

to exclude altogether the territorial problem of the defence of Italy, so as to remain as strictly as possible within the limits of this discussion.

We shall not then take into consideration the coast of Liburnia, nearly everywhere steep, and consequently quite unsuited for any military operations whatsoever, or the western shore of the channel of the Morlacca, where the supposed enemy could never hope to accomplish anything important. Let us suppose only that, having come down into Dalmatia between the valleys of the Zermagna and of the Narenta, the enemy has arrived as far as the rear of Zara, Sebenico, Spalato, and the smaller towns on the shore. This hypothesis presupposes that the army, beaten on the mountain line, has been obliged to fall back and take refuge in the fortified places on the coast—clearly a far-fetched supposition.

An invading army could not stand up for long under such conditions. Dalmatia lives upon the sea. If cut off from it, an army would have to decide sooner or later to recross the Dinaric Alps, supposing it to have passed over from there. History affords no example of a military Power, master of the sea, having been obliged to retreat before an army compelled to remain stationary on the shore and entirely deprived of sea-power. It has always been the contrary. The maritime Power, sooner or later, has always

THE STRATEGICAL PROBLEM

overcome the land force. After more than a century of struggle, and sixty-three years of actual warfare, Rome finally vanquished Carthage, thanks to her fleet. Napoleon's power failed because he had no hold over the sea. In the same way any military Power that were to come down from the Dinaric Alps into Dalmatia would sooner or later be sure to fall; and it would fall even though we did not take special advantage of our sea-control to drive it away.

But excluding altogether this extreme supposition of an invasion by that route, the history of the Turkish irruptions into Dalmatia will suffice. Commencing in 1463, favoured by the Slavs as well as by the political conditions of the territories then in the hands of different seigneuries, which, with the exception of Venice, never offered any resistance, the Turks invaded Dalmatia, but did not succeed in driving out the Hungarians until the year 1521, when they came within reach of the Venetian towns of the coast. Venice, mistress of the sea and of the islands, resisted for two centuries and won the day. At the beginning, almost without an army, she kept clinging to the coast, resisting all attacks of the Turks on Zara, Sebenico, and Cattaro until the time came when she could raise a large army during the great war of Candia. Later, when, with

OF THE ADRIATIC

the aid of allies, she was in a condition to take the offensive, the whole Venetian forces marched up the valleys of the rivers, and succeeded in establishing the dominion of the Republic as far as the watershed of the Dinaric Alps.

Italy, mistress of Dalmatia and of the sea, a State of almost 40 millions, would have to face no difficulty that could not easily be overcome in the defence of her new territorial frontier, which is in itself a bulwark. The Dinaric Alps are not a chain of mountains, as we generally imagine them to be, that is to say, with two slopes descending more or less gently towards the plain, radial valleys and practicable passes; they are a steep ledge which precipitates from the high table-land of Bosnia towards the west. A natural obstacle of that kind cannot be gone through anywhere one pleases, especially by modern armies with their heavy artillery.

History does not say what route the Turks followed in their first irruptions. It seems, however, that they came only by the valley of the Narenta, and perhaps by the opening of Pròlog (or Bilibrig), through which the road that leads from the interior to Spalato now runs. Of the other passes through the Dinaric Alps only that at the head of the valley of Butisgnizza (Buttisin), through which the Sebenico-Tenin (Knin) railway now passes, can be considered

THE STRATEGICAL PROBLEM

practicable.¹ But the fact that the Turks, once they were driven away from Dalmatia, never attempted again to reconquer it seems to show that they knew what enormous difficulties they would have to overcome in order to vanquish Venice on her new frontiers.

It is not therefore I who will make the statement; I will leave it to others more competent than myself to say that it would not be beyond Italy's strength to close up that route.

Most certainly, however, the problem of the defence of the Adriatic, which is eminently a naval problem, would be bound up with another, of a territorial nature; but the importance of the latter with respect to the general problem is so slight that we may absolutely consider it as absorbed in the former. To make out of this accessory problem a prejudicial question would be to invert the main problem itself, as the defence of Dalmatia is principally maritime, for the reasons we have already given. Continental Dalmatia is protected principally by its islands, which form one whole with it. That Daedalus of channels between the islands is nothing else but a network of arteries through which the State which possesses these archi-

¹ According to a report made by Dandolo to Napoleon (1806), this was the only open passage between Bosnia, Croatia, and Dalmatia.

OF THE ADRIATIC

pelagoes can freely display its sea-power so as to make it reach as far as the mainland, in perfect safety, at the back of an army ranged for the defence of the mountain passes. The free and unchallenged dominion of the sea will always permit the supplying of that army with everything, and, in case of need, the conveying of fresh troops—to prolong, if necessary, the resistance indefinitely.

The enemy, on the contrary, would be in great difficulties on account of the poorness of the land and the extreme difficulty of transport from the more productive regions inland. That, in short, is clearly and fairly the truth of the matter.

SECOND HYPOTHESIS—ITALY OBTAINS ONLY A FEW
ISLANDS OFF THE DALMATIAN COAST.

The hypothesis we have just been considering excludes any sharing in the military dominion of the Adriatic. But in view of the future political settling of Europe we must also take into account the possibility of some other State establishing itself on the Adriatic, and sharing with Italy that Austro-Hungarian heritage which is the fundamental premise of this discussion. We shall not stop to examine the political problem, which would take us off the track of our special subject. But as the study of a defensive system

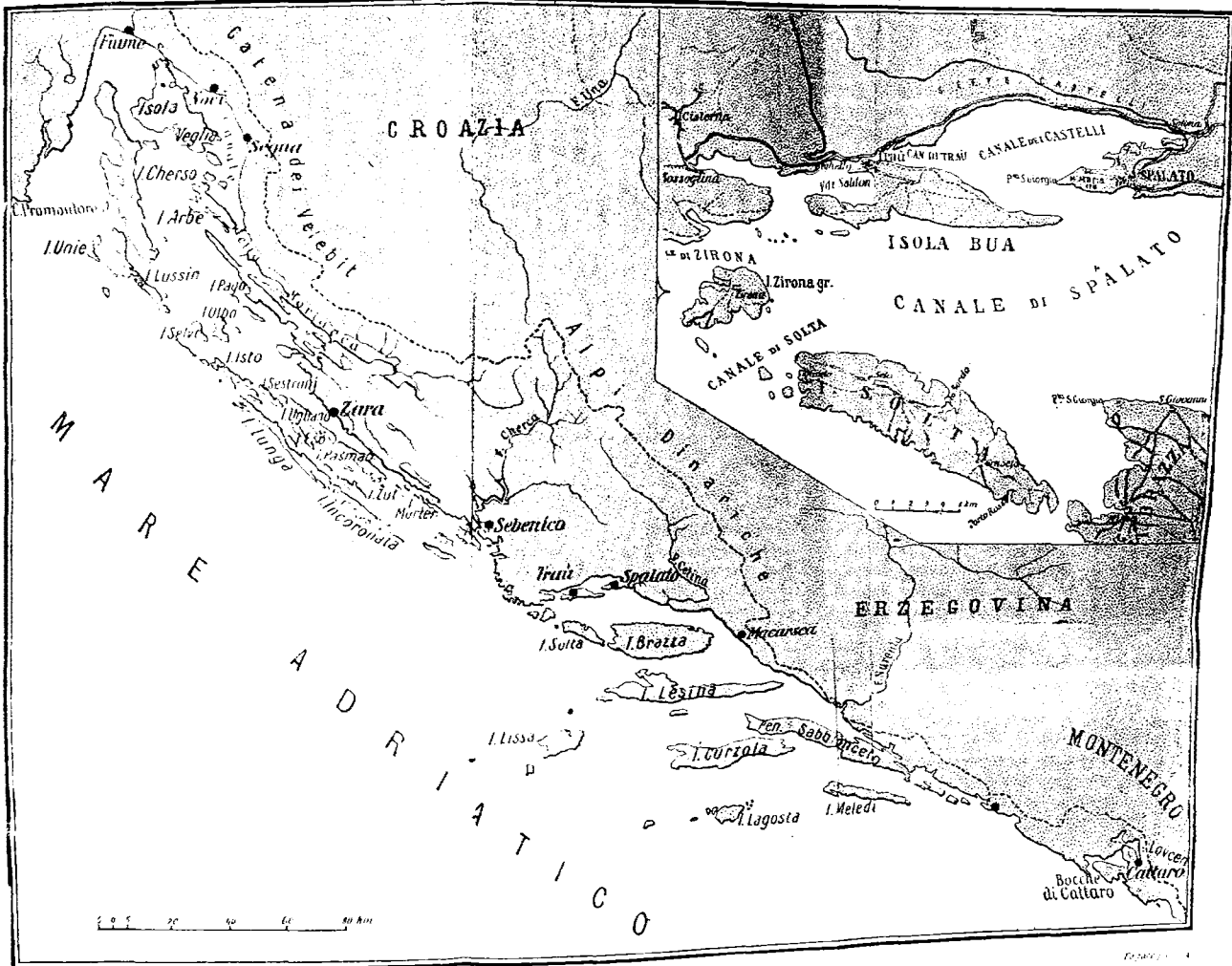
THE STRATEGICAL PROBLEM

cannot be made without starting from a determined political situation, let us consider this extreme hypothesis. We will suppose that Italy has been refused her natural Dinaric boundary, and that only a few islands of the Dalmatian archipelago have been conceded to her, together with Trieste and Istria. This would evidently suppose Italy to have been diplomatically beaten, and forced to renounce almost entirely her aspirations regarding the eastern coast. As a territorial expression of this hypothesis, we shall suppose that Italy has only obtained possession of those islands off the coast that were the subject of discussions between Rome and Vienna before the declaration of war.

The military situation of the Adriatic would then appear to be settled in the following manner.

Italy would possess Venice and Pola in the Upper Adriatic; Brindisi and Vallona in the Lower; the islands of Lissa with S. Andrea and Busi, Lésina with Spalmadori and Tòrcola, Cùrzola, Làgosta with the smaller islands near Cazza, Mèleda, and Pelagosa—the group, in fact, which, taking the name from Cùrzola, we might, for the sake of brevity, designate as the Cùrzolan islands. All the remaining lands fall into the hands of other Powers.

To complete the situation on which the new problem is to be placed, it must be added that



SKETCH-MAP OF DALMATIA—THE HARBOURS OF SPALATO AND TRAU

we are not taking into account any eventual neutralisations, prohibitions to fortify or build warships, or offer them shelter, if they come from outside. These diplomatic expedients, based on nothing else than good faith and good will, are of no value as regards the study of a question in military science; it would, in fact, be very dangerous to trust them in any way. If the experiences of the past were not sufficient, the present ought to warn us, as we must remember that paper, when it is only paper, may always become at a given moment a "scrap of paper."

Let us then exclude altogether the hypothesis that the State which has become master of the eastern shore might neglect to fortify its positions there, and also to become a naval Power; for that is the only logical way of looking at the matter. Indeed it would seem out of the question to suppose that a State which, on account of the natural conditions of its territory, is a maritime State, in the most emphatic sense of the expression, should decide not to be also a naval Power. This is, in fact, the line of reasoning that led Austria to forget the treaties of Campoformio and of Lunéville. It is more important than ever to-day to carry this out, inasmuch as, given the narrowness of its maritime basin, an Adriatic State could, in case of necessity, quickly turn itself into a naval Power by merely building

THE STRATEGICAL PROBLEM

or borrowing submarines and torpedo-boats—those small craft, in a word, by means of which the effective dominion in a narrow field of war may be secured and maintained, as proved in the present war. Yet to insert any special political postulate into a military question, with a view to prevent natural resources being made use of for military purposes, would mean to change it into a mere political question, and we would no longer be interested in it.

In such a case, Italy, forced by necessity, would be led to place her strategical centre for the defence of the Adriatic in the Cùrzolan group of islands.

It is not our business here to make a special study of those islands in order to arrive at some particular choice. After what we have said with regard to the strategical and tactical characteristics of the entire Istrian-Dalmatian system, it is evident that, even though excellent tactical characteristics were to be found in the place chosen, certainly these do not exist in any of the islands in question; these would inexorably become valueless on account of their unfavourable strategic position. Let us better explain this point. In treating of the reciprocal strategical relations between the different naval bases (principal and subsidiary) of a maritime basin,

OF THE ADRIATIC

we touched upon the necessity of ensuring the strategical lines of intercommunication. Without this security no strategical system could subsist. The bases would remain isolated stations, within a more or less limited radius of action. And rather than represent a force capable of exerting pressure on the enemy's strategical system they would represent a weakness of which the enemy might easily avail himself by merely keeping a hold on those communications.

Let us suppose, simply as an hypothesis, that the Italian naval base was established on the island of Lissa.

Lissa is—we may say—the geometrical centre of the Adriatic. Moreover, it is situated about halfway between the Quarnero and Cattaro; a position which might be called excellent, if we could consider it by itself. But when we consider it, as we must do, in reference to Pola and Venice, which means, in other words, in relation to the defensive problem of the Upper Adriatic, we at once see how impossible it is for Lissa to form a strategical system with those positions. Dalmatia and the Istrian-Dalmatian archipelago, taken as a whole, will always, on account of their superior strategical and tactical characteristics, constitute such a powerful offensive-defensive natural base against Italy as to place at the mercy of the State ruling the archipelago

THE STRATEGICAL PROBLEM

all communications between Lissa and the Gulf of Venice, thus most seriously jeopardising the defence of the Upper Adriatic.

During the present war we have had frequent examples of Austrian naval incursions on our shore. Although these turned out to be rather ineffectual, still they had a certain influence in the general balance of operations. It was precisely on account of these incursions that Italy was compelled to create a special system of defence all along the coast, which now gives most satisfactory results. This will suffice to show that an enemy, master of the splendid Dalmatian positions, might easily dominate the communications between Lissa, Pola, and Venice in such a way as to render them impossible.

The same course of reasoning can be applied if, in place of the Lissa-Venice-Pola strategical system, we take into consideration that of Lissa-Brindisi-Vallona, even supposing that some additional refuge for small craft could be established in one or other of the Cürzolan islands, and perhaps also on some point of the Italian coast.

If in the latter case the enemy would not be in a position to take advantage of the Istrian-Dalmatian system, he could always dispose of the Bocche di Cattaro, with its environments (Canale di Calamotta, etc.)—a most important

OF THE ADRIATIC

strategical centre. And it is not necessary to point out that the strategical situation would always remain to his great advantage.

It is therefore clear that even a defensive system of the Lower Adriatic would be compromised.

When Commander Bonamico states that "the position of the Italian strategical centre is liable to change whilst that of the Power that will probably be our enemy is permanent,"¹ he points out a fact of the greatest importance, inasmuch as, by stating that the choice of that centre must be subordinated to the events of the war, he clearly emphasises the necessity of Italy being in such a position as to be able to make her own free choice on the eastern coast.

If she were to acquire the Cùrzolan islands only, this fundamental condition would be entirely wanting, because, owing to modern means of warfare, it is quite impossible even to think of establishing an occasional naval base in some of the enemy's positions while war is being waged.

To suppose that Italy comes into possession of the Cùrzolan islands only is certainly, from a political point of view, the most unfavourable hypothesis that can be made, as we have clearly shown what would be its military consequences.

That group of islands would almost entirely

¹ *Op. cit.* p. 113.

THE STRATEGICAL PROBLEM

be deprived of its strategical value because it would be enfolded—so to say—between the Dalmatian coast and the archipelagoes to the north, and Cattaro and its neighbouring coast to the south, all in the hands of an enemy Power. The Cùrzolan islands have no strategical value except as a continuation of the Istrian-Dalmatian system to which they naturally belong. Military science ceases to be a science and becomes an artifice—a very dangerous thing when interests of such great importance are at stake—if it does not follow the laws of Nature, or, still worse, if it dares to thwart them. A central position in the midst of others belonging to a possible enemy may be compared to a man handcuffed under guard of policemen. This comparison shows, better than any description that might be made, what in the case under consideration would be the strategical value of the Cùrzolan group. It also shows that whatever might be the island or group of islands that Italy would obtain, the result would always be the same. No selection can be made without reproducing the situation of the handcuffed man, the geographical laws being inexorable in regard to this fundamental military question.

In discussing the problem on the hypothesis of Lissa becoming a strategical centre we have given the natural solution of it. Any other

solution that might be attempted could but lead to still more unfavourable conclusions, if for no other reason than because the centrality of the position, which has always a certain value, would be entirely wanting. And it is certainly of no use to take other problems into consideration when we know *a priori* that they cannot lead to any other satisfactory solutions.

The necessity stated by Bonamico, of having free choice as regards the strategical centre on the eastern coast, shows by itself two things: first, the immense strategical superiority of a Power which is free to make that choice, and secondly, the impossibility of adopting a different procedure if this freedom of choice is lacking.

CHAPTER IV

WARFARE EXTENDED BEYOND THE ADRIATIC

HITHERTO we have examined the general question from two points of view which must be considered as extreme, because they are founded on extreme political hypotheses. The first view was taken on the supposition that Italy had come into possession of all the eastern coast, from the Quarnero to Cattaro; and the second view on the supposition that, with the exception of Trieste, Istria and the group of the Cürzolan islands, nothing else had been allotted to her. We might also study the problem on the basis of some intermediate hypothesis; but this would prolong the task unduly without profit and to the detriment, perhaps, of a clear understanding of the general situation.

As regards those natural reasons which were fully explained when dealing particularly with the strategical and tactical characteristics of Dalmatia and of the archipelagoes, there can be no intermediate hypothesis which does not

THE ADRIATIC PROBLEM

imply a complete annihilation of the strategical value of the positions which, in that hypothesis, might be allotted to Italy. The Istrian-Dalmatian system cannot be broken up without depriving of its military value the part that politically would be added to the Italian State. And if that was always true, the more so is it now, owing to the subaqueous and aerial means of modern warfare which allow the enemy not merely to lessen but to destroy completely the military value in question.

The subject, however, has been dealt with on the hypothesis of a war which, as regards cause and development, is to be kept within the geographical limits of the Adriatic. In other words, in the study of the Italian defensive problem we have supposed one enemy only, in the east; in the first case a territorial State, without openings to the sea; in the second case, a maritime State, in the possession of Dalmatia and of the archipelagoes, under naval organisation.

With regard to the second situation there are two different aspects to be considered, namely, whether the enemy be alone or allied to some other naval Power that we suppose to be extra-Mediterranean. As to the first case, we have already dealt with it fully in studying the military situation of the Adriatic, on the hypothesis that

THE STRATEGICAL PROBLEM

Italy had only obtained the Cùrzolan islands. We must therefore consider the other.

THE CONSEQUENT STRATEGICAL SITUATION

Evidently the foremost necessity would be that of defending the Otranto Channel, so as to prevent the junction of the two enemy fleets. But in such strategical conditions as described above, Italy would have to face great difficulties, seeing that she would be compelled to defend simultaneously both that channel and the Upper Adriatic. The enemy, in fact, relying on the powerful Istrian-Dalmatian system, could always, by employing small forces, threaten the Upper Adriatic, thus preventing any displacement of Italian forces from the upper to the lower basin of that sea. On the contrary, however, the enemy would be perfectly free to displace his own forces in a corresponding manœuvre. Moreover, as the result of the enemy assembling in great force at Cattaro, the two supporting stations for the defence of the Otranto Channel, Brindisi and Vallona, would be in permanent danger of being cut off from the Cùrzolan islands and consequently from the Upper Adriatic. Finally, the connection with Taranto might also be seriously compromised, as we must logically suppose that the naval force allied to our Adriatic

OF THE ADRIATIC

enemy, before deciding to take part in the conflict, would have made sure of some good base in the vicinity of the Otranto Channel, sufficiently large at least to provide accommodation for small craft and submarines.

In order to give the greatest probatory value to the consideration of the naval situation that would result from this state of things, we will consider the problem in the most favourable hypothesis with regard to Italy. If by so doing we succeed in showing that Italy would find herself in very difficult circumstances, we shall have proved it *a fortiori* if the initial hypothesis were to be altogether unfavourable.

Let us then suppose that Italy also has allies on her side; that the relative strength of the opposing forces in the Adriatic, allies excluded, gives Italy a remarkable preponderance; finally, that the forces of our allies are in a position to hold in check the allies of the enemy outside the Adriatic, at least for a certain time.

We shall see in due course what influence any naval events caused by the presence of opposing forces outside the Adriatic might have upon the development of operations in this sea.

The resulting military situation in the Adriatic would be a great splitting up of the Italian forces;

THE STRATEGICAL PROBLEM

still more, a dangerous dispersion of them. Whilst we should be obliged to subdivide them into two principal sections, located respectively in the Upper Adriatic, with bases at Pola, Venice and Lissa, and in the Lower Adriatic at Lissa, Brindisi and Vallona, the enemy in the Adriatic would never have to submit to similar conditions. Indeed, it is quite logical to suppose that, in view of a possible combined action with his Mediterranean ally, having the Otranto Channel as objective, the enemy should be able in time to concentrate the greater part of his ships at Cattaro, perhaps even before the opening of hostilities, leaving in the Upper Adriatic, relying on the strong positions of Dalmatia, merely smaller craft, torpedo-boats, and submarines, so as to maintain the strategical command of our communications.

I am not considering the case of a part of our forces, initially located at Taranto, having been cut off from the Adriatic during the course of events. On the contrary I take it as a matter of course that all the national forces were able to assemble in time in this sea; and thus I am keeping strictly within the field of the most favourable hypothesis in regard to Italy, as it was my intention to do. Therefore the general situation would result in a forced dispersion of naval power on our side, whilst on the contrary

OF THE ADRIATIC

471

our enemy would be perfectly free to assemble his forces under the most advantageous circumstances.

It is not necessary to enter more fully into this analysis to show the great strategical inferiority in which Italy would be in the Adriatic, even though she had placed her strategical centre in the geometrical centre of the maritime basin.

DEFENCE OF THE OTRANTO CHANNEL

A Mediterranean Naval Power allied with Italy's enemy in the Adriatic would have the choice of two methods whereby it might come to the aid of its ally. It might intervene directly, by attempting to force the Otranto Channel; or it might decide to carry out important diversive actions elsewhere against our coast outside the Adriatic. The purpose of this latter move would be to draw off part of our mobile forces from the Adriatic theatre, and thus assure to our enemies in the Adriatic a preponderance in the relative naval situation in that sea.

In the first case the logical forecast would be as follows: At an opportune moment the enemy's naval forces would be concentrated in the lower Adriatic (base at Cattaro) so as to facilitate the forcing of the Otranto Channel and to join hands with their allies coming up from the South.

THE STRATEGICAL PROBLEM

For this purpose they would take up their position between Lissa and the channel, so placing between two fronts the Italian forces at Brindisi and Vallona, and there would be no possibility for the Italians, coming from Lissa, to threaten the enemy's rear. Even supposing that in this first phase of the war Italy were to succeed in detaching from the Upper Adriatic a part of her forces concentrated there, the position of her forces organised for the defence of the Otranto Channel would be even still extremely difficult, because in this case the forces of the adversaries, working together, would almost certainly preponderate. The further fact that Italy's forces would have to fight on two opposite fronts at the same time would oblige them to divide themselves, a measure which of itself would place them in a position of strategic inferiority. On the contrary, wireless telegraphy would allow the two sections of the enemy's forces to regulate their movements in such a way as to ensure a simultaneous attack in the vicinity of the channel. One cannot count on the possibility of attacking first one section and then another, so as thus to be able to overcome the whole.

Moreover, it must be remembered that in case we should find it possible to withdraw part of our forces concentrated in the Upper Adriatic to support our defence of the channel, this would

OF THE ADRIATIC

be extremely risky, because in all probability the enemy stationed in the Istrian-Dalmatian archipelago would be able to prevent our concentration of forces by merely employing light craft and torpedo boats against them.

We have here supposed that the naval forces of our ally, whose base would naturally be Taranto, would take it upon themselves to prevent the fleet of the Mediterranean enemy from entering the Adriatic, but the intervention of our ally's forces could turn out efficacious only on the following conditions :

(1) That of possessing over the forces of the enemy an initial tactical superiority sufficient to delay at least the enemy's combined action, and possibly to give our forces time enough to attack the Adriatic section of the enemy's forces for the purpose of weakening the latter without fully engaging themselves.

(2) That of arriving in time to take up a position between the enemy and the Otranto Channel, so as to be able in any eventuality to fall back upon Brindisi and Vallona, and thus unite with our forces stationed at those bases. The success of this strategical plan would entirely depend upon the entity of the allied forces ready at hand, and also upon the time at their disposal ; and one can easily see that if the result should turn out unfavourable to us, our situation in the lower

THE STRATEGICAL PROBLEM

Adriatic might become extremely critical. Should this engagement in the Ionian Sea result in leaving the road to the Otranto Channel open to the enemy, our forces would find themselves between two fires, invested by forces whose sum total, as has been already said, would almost certainly preponderate over that of ours. Thus the general situation in the Adriatic, if not desperate, might become very dangerous for Italy. And here one must also take into account the moral effects which would be produced by the forcing of the Otranto Channel on the part of the enemy's fleet.

This contingency, which, if we are to look at the matter in a strictly objective way, we cannot afford to neglect, must always be kept in mind whatever the naval situation in the Adriatic may be at a given moment. Therefore sufficient forces should always be kept on guard in this channel, and they should be such as to be able to withstand the first encounter with an enemy coming up from the south, even if, under favourable circumstances, part of our forces in the Lower Adriatic were engaged against the enemy coming from Cattaro.

The necessity of keeping forces to guard the Otranto Channel is another cause of strategical inferiority on our part. When we take this into consideration, together with the necessity of

OF THE ADRIATIC

sub-dividing our own forces into at least two sections, the one to defend the Gulf of Venice and the other the Lower Adriatic, the difficult situation in which Italy would thus be placed is too evident to need any proof or demonstration. Of course, we are considering this question still, in view of the hypothesis that has already been made, viz. that Italy has obtained possession of only the Curzolan Islands or some insular position belonging to the Dalmatian system.

It should be noted that in showing the difficult strategic position in which Italy would be placed in that case, we have not supposed the Otranto Channel to have been actually forced. We have only considered the necessity of keeping well in sight such an eventuality. It would be unpardonably foolish not to do so, that is to say, to look upon the Otranto Channel as absolutely inaccessible to the enemy.

On the other hand, we need not lose time in considering the other hypothesis, namely, that the naval Mediterranean Power allied with Italy's Adriatic enemy, instead of attempting to force the Otranto Channel, would attempt to carry out a diverse operation on some other part of the Italian coast, for the purpose of compelling part of our forces to leave the Adriatic. It is not necessary to deal with this hypothesis; because, if the attempt were to succeed, the

THE ADRIATIC PROBLEM

situation resulting therefrom in the Adriatic would evidently be much worse than that which we have just been considering. If, on the contrary, this operation on the enemy's part failed, the situation would remain unchanged, at least as long as the course of events in other maritime spheres had not eliminated once and for all the possibility of dangerous consequences as regards the Adriatic naval situation.

CHAPTER V

A SINGULAR ASPECT OF THE
PROBLEM

IN making a special study of the strategic and tactical characteristics of the eastern shore, we have emphasised the remarkable morphological difference between the northern and the southern part of the Istrian-Dalmatian system. By following these natural indications, it would seem quite possible to find, if not a complete solution of the military problem of the Adriatic, at least a partial one worth taking into consideration.

Let us suppose that Italy after the war has come into possession not only of Istria and the Cürzolan islands, but also of the northern Dalmatian system, with Cherso, Lussin and the smaller islands of the Quarnero, as far as the line of separation that we have roughly indicated, when making a distinction between the two different morphological sections of the archipelagoes. In making this hypothesis we really

THE STRATEGICAL PROBLEM

transfer the pivot of the Italian naval power to the Lower Adriatic, thus limiting the naval problem to the defence of that part of the maritime basin. Indeed, if the enemy be confined merely to stations in the Lower Adriatic, he would not be in a position to carry out any powerful offensive against the Upper Adriatic, just as Italy in her present strategical conditions cannot carry out any serious offensive against the eastern coast.

Lissa and the Cürzolan islands in general, when no longer isolated and enclosed as supposed before in the Istrian-Dalmatian system, but supported by the Dalmatian mainland and upper archipelagoes, would serve the purpose of advanced naval stations, forming a sort of barrier to withstand in a satisfactory manner at least a first attack of the enemy coming up from the south and attempting to force it. Italy's naval situation in the Adriatic would then be notably improved in comparison with the present, which is altogether inefficient.

There would still exist, it is true, a naval co-dominion in the Lower Adriatic, but it would no longer be impossible, as it is now, to raise it to a pre-dominion on our side, so long, of course, as the supposed enemy was not induced by political events to contract an alliance with some other naval Power capable of making its influence felt in the Mediterranean. And so also from

OF THE ADRIATIC

the point of view of the freedom of the sea, for communications of any kind between the two shores, the Upper Adriatic would then be in a position not unlike that in which the Mediterranean is at present, as far as the submarine war is concerned.

It is, however, necessary to examine with special care the strategical situation of the Cùrzolan islands with regard to the Lower Adriatic, which might be considerably changed, according to whether the dividing line of the political dominions in Dalmatia had been established in coincidence or not with the line of morphological determination that we have already pointed out. If we admit this coincidence, the barrier of the Cùrzolan islands, supported westward by the Gargano, would really constitute a strong advanced line, closing the Upper Adriatic; and in this case its strategical value would be very great. The Bocche di Cattaro and its environments would still remain in possession of the supposed enemy, but no matter how important these positions may be, from a naval point of view, it is evident they would lose really in value owing to their being enclosed in the great Italian strategical triangle, the base of which would be the line of the Cùrzolan group as far as the Gargano, whilst its vertex would be on the naval stations by the channel of Otranto. I say "lose

THE STRATEGICAL PROBLEM

greatly in value" and not "totally," because the very strong position of Cattaro would certainly always represent an element of which serious consideration would have to be constantly taken. But it is obvious that, if political events were to cause our enemy to find outside the Adriatic those alliances that we have already supposed, Italy, no longer obliged to spread her forces along the whole extension of the Adriatic—over 400 sea-miles between Brindisi and Venice—would most probably be in a position to ensure by herself the defence of the lower basin of her sea and still alone oppose any occasional attempt to force the channel of Otranto on the part of enemy naval forces coming up from the south.

If, however, the supposed coincidence of the boundary lines did not occur, and the strong positions of Spalato and Traù were excluded, the strategical situation of the Cùrzolan islands would be greatly depreciated. That barrier, comprised, in this case, between the Bocche di Cattaro to the south and the positions just mentioned to the north, would lose a great part of its strategical value.

Consequently, the limit of Italy's absolute dominion in the Adriatic, rather than on the powerful line of the Cùrzolan islands which Admiral Thaon di Revel most rationally compared

OF THE ADRIATIC

to a bridge between the two shores,¹ would be thrown back as far as the influence of the enemy's positions of Spalato and Traù would extend north.

This, of course, leaves out of consideration the effects of reciprocal depreciation also to be foreseen between these positions of the enemy and the Italian base of Sebenico, which it is impossible to estimate by way of hypothesis.

This falling back, and the almost total loss of the support that the Cùrzolan line could give, would modify the Adriatic strategical situation to Italy's serious disadvantage, throwing it more and more into that most deplorable condition which we were obliged to recognise when considering the hypothesis of the possession of the Cùrzolan islands only.

By this special study we have made clear the fact that the strategical value of the Cùrzolan barrier depends altogether on the position in which the boundary line between Italian and alien dominion in continental Dalmatia will be fixed, and that, as a consequence, the rational solution of the Adriatic naval problem from an Italian point of view depends absolutely on the way in which politics are likely to take advantage

¹ Thaon di Revel, Letter to Whitney Warren in: Whitney Warren, "Les justes revendications de l'Italie," Paris, La Renaissance, etc., 1917, Preface.

THE ADRIATIC PROBLEM

of natural conditions for the sake of Italy's security in that sea. The natural line of division, according to the morphological conditions of the coast, may be laid down somewhere south of Spalato, more or less from the mouth of the river Cétina and the Spalato passage (between the islands of Solta and Brazza). Should the political boundary in question be removed only a few miles south or north, it would be quite sufficient to change the Italian strategical situation in the Adriatic so as to turn it respectively into a predominating or a subjective one.

CHAPTER VI

INFLUENCE OF MODERN WARFARE ON THE DEFENSIVE ORGANISATION OF THE ADRIATIC

IN my treatment of the subject under consideration I have thus far assumed that we are dealing with warfare of the classic type, waged according to the accepted historical methods. In a war of this type the scale of tactical operations extends from the occasional encounter between isolated light units—an action which may be classed in the category of episodes—up to the great, strategically foreplanned battle between fleets. In this type of battle, which, as a rule, closes a stage of naval operations, strategic preparation nearly always has the preponderating influence. In view of our experience of over four years of a terrible war, and also in view of the fact that naval warfare on the part of Italy and her Allies has been carried on also in the Adriatic, this study ought not to come to an end without having taken account of the real conditions under which modern naval warfare may be conducted. These conditions may be summed up in a few general paragraphs.

THE STRATEGICAL PROBLEM

In the past a battle on the grand scale might decide the fate of a war. In fact, by the destruction of the enemy's naval power and the consequent gaining of the absolute command of the sea, the victor acquired over the vanquished a superiority which led safely and surely to definite victory over all the enemy's forces. But that battle on the grand scale seems nowadays to lie far outside the field of naval probabilities. And it is on these probabilities that we may and must base our strategical and tactical preparations in facing the problem of naval warfare in general.

The improbability of having a battle on the grand scale, which will decide the fate of a campaign, seems to be demonstrated clearly enough by the fact that during the present war, with the exception of the Battle of Jutland (May 31st, 1916), no great naval action was even attempted. In the Adriatic especially, the dominating fact is the persistent and absolute inaction of the enemy's large ships. For over three years they have remained shut up in their bases and very seldom did even one of them venture forth. This state of affairs is the logical consequence of the great risk that a ship runs in putting out to sea; and that risk is so much the more to be feared as it cannot be fully gauged beforehand. An accurate estimate of the relation between the advantages to be gained and the danger incurred in sending a ship out to

OF THE ADRIATIC

sea ought necessarily to be the first step in planning a naval operation. And the experience of over three years has shown us that under the conditions in which modern warfare is waged, especially in a narrow sea like the Adriatic, it is very difficult to make any such calculation as would provide for preventive measures that may result in securing the advantage in question.

The submarine and the mine, whether fixed or drifting, have so changed the nature of what is generally called "Command of the Sea" as radically to alter some of its characteristics, though not upsetting the fundamental principles on which it is based. In past wars the struggle for the command of the sea was the initial and most important phase of a naval campaign. Actions such as search, provocation and challenging the enemy in his bases, might almost be of a resolute character, owing to the importance of their consequences as regards the continuation of the war. To-day, however, all these actions are supplanted by a series of struggles on a smaller scale, which are constantly and obstinately being repeated. On the one hand, there is the struggle to multiply sea snares, and, on the other, the struggle either to neutralise or remove them. Out of this competition for the actual command of the sea has sprung the new navy, composed of innumerable small craft, more or less swift

THE STRATEGICAL PROBLEM

and more or less powerfully armed. These forces include the light and swift cruiser, torpedo-boats of every description, operating as surface craft or as submarines, motor-boats, etc., and craft of all sizes for the laying or sweeping up of mines, etc. The large ship, the mastodonic Dreadnought, still awaits the time when she will be allowed to reproduce the great deeds of her glorious predecessors. The great struggle for ensnaring or the disabling of snares has so taken possession of the field of naval warfare that for the present it is impossible to see whether or how the great naval feats of the past can ever be repeated.

The Battle of Jutland might perhaps leave the impression that a grand tactical action would still remain always possible, notwithstanding all the risks to be run. But it is better to put this impression out of our minds at once. The Jutland battle was provoked by the Germans; and we are entirely in the dark as to what was their strategical object which might justify the great risk to which they exposed their fleet. As a matter of fact, that battle only proved the uselessness of the attempt, which was never afterwards repeated. But it also clearly showed that so long as the several naval Powers possess fleets of big ships, the Power that renounced the principle of having these fleets would thereby put

OF THE ADRIATIC

479

itself in a dangerously inferior position. Without doubt it was Jellicoe's fleet that brought about the great defeat of the German fleet on May 31st, 1916. But warfare by means of small craft and mines has taken the upper hand, and it is quite possible that one day it may succeed in playing a decisive rôle. The question is, how and when, in spite of all undersea snaring, one of the belligerents will beat his opponent in producing the necessary means to preserve and increase his command of the sea, taking the term in its broadest meaning. In other words, the struggle for the command of the sea now resolves itself into a struggle to overcome the enemy in rebuilding.

Under such conditions, will the problem of the Adriatic still rest on the lines which we have followed? To answer that question as clearly as possible we must first consider war manœuvres on the surface of the water, quite apart from the question of submarine snares, because the aspects under which we ought to study the influence which certain natural conditions of a part of the maritime basin of the Adriatic have on naval warfare become entirely changed when the submarine comes into play. With regard to mines, whether fixed or drifting, we should always consider them as surface snares.

THE STRATEGICAL PROBLEM

So long as we confine ourselves to speaking of war between floating ships their size does not alter the nature of the problem in any way whatever. But when we come to speak of the action of small boats, since the number of units is considerably increased, the necessity arises of increasing the facilities for assembling them. The strategical and tactical study of the shores must then be more analytical, since it is absolutely necessary to find and choose a larger number of stations for falling back upon.

It is not necessary, however, to enter into the study of this question in order to reach the conclusion that the relative position of the two shores, from the point of view of their aptness or inaptness for the requirements of modern warfare, remains always the same. It is not necessary, because a glance is sufficient to show that, while the eastern shore lends itself to the creation of as many bases as may be required for small craft of every kind, the western shore can never be much better adapted than it is to-day for the large ships. It is not so much a question of distributing these small boats about as it is of finding a means of assembling them, so as to send them forth as necessity arises for purposes of manœuvring, protected against a surprise action on the part of the enemy. It must be clear to everybody that when compared with the strategical and tactical value of the Istrian-

OF THE ADRIATIC

Dalmatian system the Italian shore has no advantages to offer. Even if, for the sake of argument, we were to suppose every port or port-channel on this shore converted into a centre for light and small craft, any kind of muster or combined manœuvre that had to be made between the units of several groups at some distance from one another would invariably have to be carried out in the open sea, under the menace of a surprise attack on the part of the enemy.

Without going into this question any further, one can clearly see that, on this hypothesis also, the lines on which we have treated the military problem of the Adriatic remain unchanged.

Let us now consider the whole problem of war with small craft and the intervention of submarines. The question reduces itself to this : Is it possible to debar the submarine from the Adriatic, under any of the hypotheses considered in the course of this study ?

Nature itself answers in the negative. It is not possible to effectively prevent the entry of submarines into the Adriatic except by closing the Otranto Channel ; but though the width of this channel (forty miles at its narrowest point) might permit this most difficult and expensive enterprise, its depth (nearly five hundred fathoms) effectively prevents it.

It is true that technical means are constantly

THE ADRIATIC PROBLEM

being developed, on the one hand to enable submarines to overcome safely still greater pressure from outside, and, on the other, to fix obstacles and snares against submarines even at still greater depth than at present ; but quite apart from the fact that it is impossible to foretell which side will outstrip the other in this respect—that which places the obstacles or that which tries to overcome them—it would be unwise to exclude the submarine from the reckoning which Italy must make in regard to the enemy forces which one day or other she might have to encounter in the Adriatic. It will be best to admit that, for her, the Otranto Channel is a door not entirely closed.

As regards the defence of the Adriatic against invasion by submarine, it will be well to depend rather on movable forces on the surface of the water, and to increase the number of these ; but one can easily see that in this case the problem will revert to the original hypothesis and that the conclusions drawn on that presupposition hold good for any eventuality that may be foreseen in modern warfare.

Even at the present day, then, although it would seem as if naval warfare had been radically changed from the typical historical examples which held good until yesterday, it is truer than ever that the Adriatic can be defended in one way only, and that is by dominating it.

CHAPTER VII

CONCLUSION

WE must remember that the maritime defence of the Adriatic is not a question strategically independent of the general problem of the defence of the national territory. We have considered it independently here only because it is logical to distinguish between the functional operations of the navy and those of the army. But that logical distinction refers only to the functional operations; for the final purpose and aim of these operations at sea are identical with those of the army on land. A plan of defence for the Adriatic must always be an integral part of the general plan for the defence of the State. It is clear that the naval situation in the Adriatic must necessarily be influenced by the general defensive situation; and we must accordingly take account of the fact that the centre of gravitation of the naval operations may have to change in order to correspond with the general situation. If we keep this first and most essential condition

THE STRATEGICAL PROBLEM

well before our minds, so as not to make the mistake of building on sand, we shall easily see that a strategical situation in the Adriatic which did not allow us any freedom of choice, and did not eventually place in our hands the means of changing our strategic centre according as the course of events necessitated it, would always be, as Bonamico very rightly says, a position of absolute inferiority as regards the enemy, no matter on what hypothesis that situation is founded. And this is specially clear when we bear in mind the strength of the enemy's natural positions on the eastern coast, from Quarnero to Cattaro.

To put the matter briefly, the more we study the problem of the defence of the Adriatic the more clearly we see that Italy cannot pretend to settle again, except by means of expedients, a state of things which has been altered to her disadvantage, since she was deprived by man of what nature had assigned to her. There is but one way of restoring the natural order, and that is to reconquer the lost positions.

The theme of this book is entirely founded on natural and unchangeable facts. They are natural facts, those that give to the Istrian-Dalmatian system that immense tactical and strategical importance which we have so frequently

OF THE ADRIATIC

pointed out ; natural facts, those that determine the military inferiority of the Italian shore ; natural facts, those also by means of which the strategical importance of an isolated centre (we have supposed Lissa to be such) is rendered practically valueless, precisely on account of its isolation in the midst of positions richly endowed with natural military advantages.

It is nature herself, then, that demands that there must be a sole ruling Power in the Adriatic. And that for two reasons, namely :

I. The possession of the whole eastern shore, all richly endowed with natural advantages, confers upon those who hold it the absolute predominance over the Power that possesses the western shore alone, a predominance such as even an organic superiority of naval power could not counterbalance.

II. Not one of the insular positions in the archipelagoes of the eastern shore can be detached in favour of the Power holding the western shore without altogether losing its strategic value.

These are the reasons why far-seeing and unbiassed thinkers and writers—in different ways and at different times, but always moved by the same idea—have stated that for Italy there can be no half-measures in the Adriatic. Either she must dominate it or else be dominated by it.

Let Italy have the position in this sea necessary

THE ADRIATIC PROBLEM

for her military security. This little treatise shows what position she ought to have. May she also have friends. She desires nothing better. Competitors also, in the honest way of commerce. She offers to all, as a guarantee, the testimony of two thousand years of history, during which she invariably benefited those who were her companions or associates or friends.

