

Approach to Foreign Map Reading

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Occasion to use foreign maps grows more imminent daily. While our own Army agencies will provide the major portion of aerial photographs and maps of the theater of operations there will be numerous times when local source material will be used. This is especially so in providing early provisional maps. In these and in other maps, we will make use of the foreign (local) sources as the framework upon which the new maps will be based. There is also the chance that groups may work with other Allied Forces, and have occasion to use their maps extensively. This is too deep a subject to be covered here in anything but generalities, with an occasional examination of detail. It is hoped that this discussion will aid the junior officer who may work with foreign maps.

STEPS IN OBSERVATION

Generally, by the time an officer receives a map, he needs it and must be able to make the best use of it immediately. The steps outlined below will serve to give the map observer a knowledge of the accuracy and character of the map.

Date: Always look for the date on a map first. If not in the legend it may appear in the margin or on the map border. There are four general dates, one or more of which generally appears on most maps. These are the dates of: 1. Survey or Compilation; 2. Publication or Printing; 3. Reprinting; 4. Revision.

The date of survey or of compilation is the date to be sought as either will indicate the timeliness of the map information. In most cases the date of survey will not be stated because the map may contain areas surveyed at various dates; the survey date appears most generally when one survey covers the entire map area. The date of compilation is then the next best key on which to rely. Depending upon the agencies and sources available it will take anytime from three months to several years to compile, draw, and print a map. Foreign map production is a much longer process than ours.

The date of publication or printing is the most common date to be found on foreign maps. Most of the information is usually at least a year old by the time of publication.

The reprinting date too often misleads the observer by making him think it is the date of the map's origin or

publication. One reason for this is that some publishers are not careful to state that such a date is the one of reprinting; they often just replace the old date.

Revision dates, the publisher is anxious to have known, so they are generally conspicuous. This does not, however, mean that the entire map was redrawn, and in too many instances the revision date is applied when only a few (even one) spot changes have been made. Another case in which a revision date will appear is in the event of revision of special information such as population symbols. Another example of special revision is in the case of a map showing airlines in a special color. This information if corrected would normally affect only this one color and the date of revision should appear in it.

A great deal can be determined from the analysis of one of these dates, and the observer should never fail to look for these first. Use cautiously the map without a date. Do not be misled by the freshness of a map's printing; it may be a reprint of a map many years old.

Publisher: The next step is to note whether the publisher is military, civilian, or governmental; this will give a good general idea as to the map's accuracy and dependability. Maps published by a government or the military are the most accurate. Exceptions should be cited, however. These are governments who seek territorial gains. They generally establish part of their claims on the basis of their own maps and must thus speak an untruth, for in a border dispute it is invariably the case that each side extends its boundary into the other's area. In this instance a neutral country will come the closest to showing the truth.

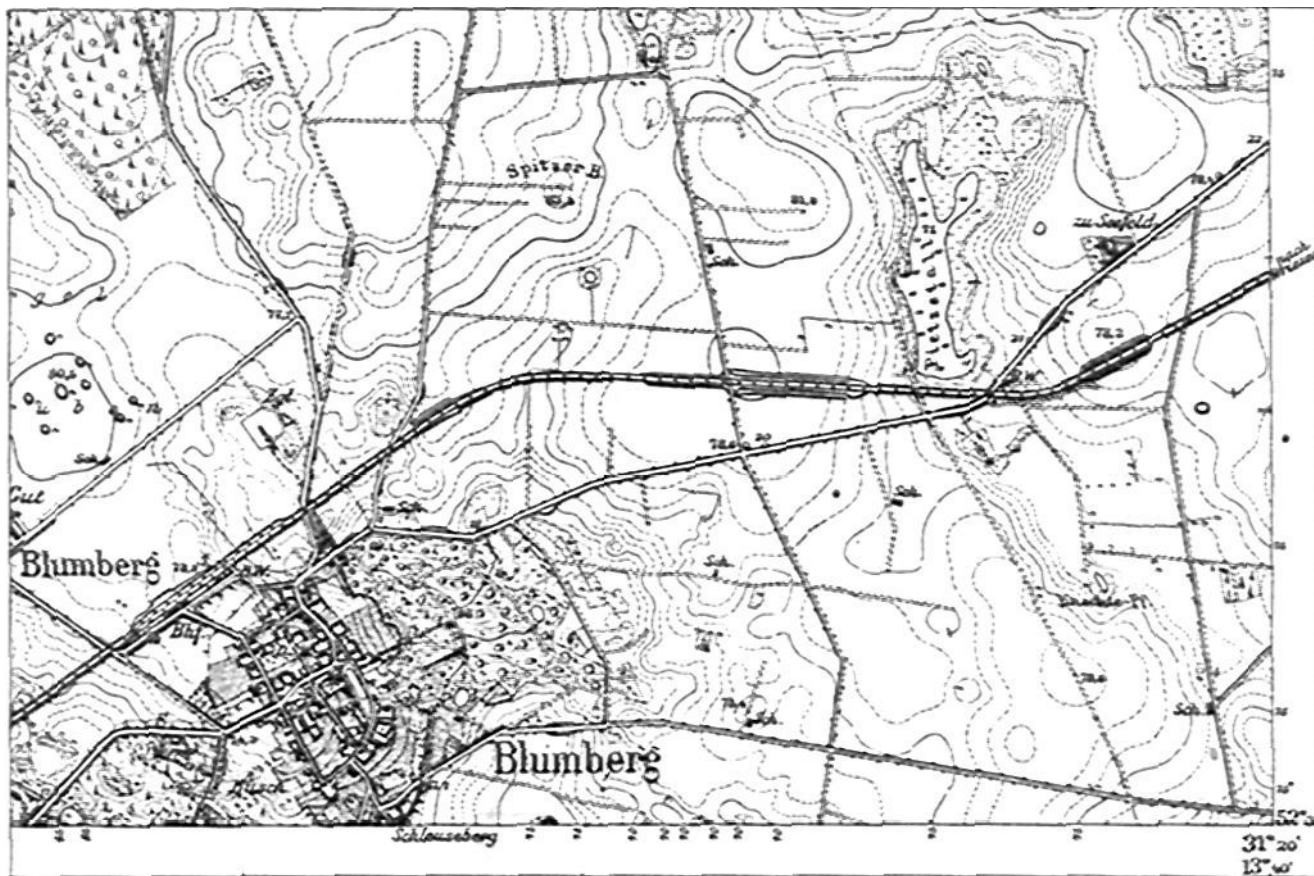
Maps produced by a government are made from more complete source material if not from original surveys. Civilian firms too often engage in producing general maps, and only a few have any real source material. German firms, however, have produced some very excellent detailed maps, but in most instances a commercial firm can not afford the research that a government can.

Boundary commissions will often produce accurate and detailed maps, but these cover only a narrow strip along the boundary line.

Composition: The third consideration would be to study the map's composition. Composition reveals to a good extent a map's accuracy. (A good publisher will sometimes make a poor map.) Observe the placement of names on mountain ranges. Look at the formation and placement of various symbols. In towns along rivers are the symbols properly placed? Is the draftsmanship of the map careful? Is the coastline detailed or general? These and many other items can reveal

TYPICAL RUSSIAN CARTOGRAPHY

The map opposite shows the area around Moskva, scale 1:1,500,000, from a Russian atlas. Though detailed the map has good clarity.



German Map, Scale 1:25,000, typical of type used by German troops in combat.

the care taken in the cartography of the map. Except for field sketches, a map with worthwhile information on it rates careful cartography and draftsmanship. Do not depend too much upon one which is haphazardly composed or drawn.

Coloring: Next observe the map's coloring. The school teacher and layman want maps brilliantly colored, and in this they too often forget one of the most important requisites of a good map: legibility. If the map contains detail yet is strong or garish in its coloring, its makers perhaps lacked the proper concept of some other important feature of their map. Foreign maps are more liberal in the use of color than United States maps. The only place a strong color is useful on a map is in portraying a special subject. Here the importance of one subject must warrant cancelling the others. In topographical maps no one subject should cancel another.

DECODING GEOGRAPHICAL TERMS

The observer now wants to start reading his map. Already he will have encompassed some of the map's detail, and should, at this stage have its reliability pretty well established. Should the reader not have at hand a table of geographical terms similar to the one accompanying this article then it would be advantageous for him to follow the procedure set forth in the following paragraphs.

Study the map culture by looking at one subject at a time. Take river names for instance. On a Spanish map the

term *Rio* would appear with such frequency that the reader could establish with certainty its meaning even if he had no knowledge of the language. A similar example can be cited in the case of French maps of northern Africa. Here the frequency of the term *Oued* along the intermittent stream symbol reveals that it is the French equivalent of the English *Wadi*. Both of these terms are the general African name for the type stream already mentioned.

In another instance, the frequency of the word *Göl* with names which apply to lakes in Turkey make it evident that this is the Turkish term for the English word lake. By looking the map over and comparing equal terms the observer can logically and accurately deduce many such geographical terms simply by associating them with their symbol and noting their frequency of occurrence. It is, of course, impossible to decipher all the map terms or symbols this way, but the unacquainted reader will surprise himself with the extent to which he can read a foreign map. The secret lies in the fact that maps and their symbols are a form of international language.

The above outline applies to maps using the Latin alphabet. By the time a reader has scrutinized a map by this process he will find very little unfamiliar to him and will be able to use it very well in making other maps. Only experience with it will reveal all the map has to show. No mention is made of the legend, but it is expected

This makes the map name appear in the same form on all maps, not the English form on an English map and Russian form on a Russian, et cetera. For instance, *Warszawa* would thus appear as such on any nation's maps rather than *Warsaw* on an English map; *Warschau* on a German; and *Varshava* on a Russian. The following table illustrates the varying forms of one name when rendered in other languages:

English	Russian	German
New York†	Nyu-lork	Neu York
Moscow	Moskva†	Moskau
Vienna	Vena	Wien†

Most of the better maps today carry the local forms for town and city names. Gradually the local forms of other names, such as rivers, lakes, mountain ranges, capes, et cetera, are being shown. Eventually, when this process is complete, the names of nations will be in their national form, and instead of Finland, Norway, Belgium, Greece, et cetera, all maps will carry the names of Suomi, Norge, België, and Hellás.

In using any foreign map, see if it observes the correct rule of using the local form in countries adjacent to it. A Spanish map of Europe should render all names within the boundaries of a particular country in the form used by that nation. For oceans, large seas, and continental names the Spanish form would be in order as these names belong to no particular nation. German maps do not always observe the rule of spelling names in adjacent countries in their local form, but choose to put the German form on all they can. This has, in recent years, been a part of the campaign to educate Germans to think of the world as being dominated by Germany.

THE LATIN ALPHABET AS USED BY OTHER NATIONS

Knowledge of some of the peculiarities and additions which exist with the Latin alphabet as used by other nations will help further to understand foreign map names. Without intention to develop the pronunciation angle, here are the main exceptions to the Latin alphabet as we use it. All languages which are classified here use the Latin alphabet.

Teutonic Languages—

GERMAN. The sign · · is used over *a*, *o*, *u*, to alter the

†Correct form.

sound. Capital *Ä*, *Ö*, *Ü*, are sometimes written *Ae*, *Oe*, *Ue*. The symbol ß is used for *ss*. DANISH. Adds *æ* and *ø* (used to be written *o* or *æ*, often seen now as *ò*) to end of the Latin alphabet. The letter *j* is being abolished except for



SECTION OF GERMAN WALL MAP

Note that Polish names are in German form. Breslau and Danzig are correct in German form because they are in German territory. Compare with Polish map on next page.

place names; *c*, *q*, and *w* are found only in words of foreign origin. NORWEGIAN was originally Danish, and is almost the same. (Add *c*, *q*, *w*, *x*, and *z* in foreign words only.) *Ks* is often used for *x*.

SWEDISH. Adds *ä*, *å*, and *ö* at the end of the alphabet. Words of foreign origin only use *c*, (except for *ck*), *q*, *w*, and *z*.

DUTCH. The letters *c* (*ch*, *sch* are the only exceptions), *q*, *x*, and *y* occur in foreign words only; *y*, however, was used for *ij*.

ICELANDIC. Adds *æ* and *ö* along with two special characters for *dh* and *th* (*Ð*, *ð* and *Þ*). There is no *w*. Little used are the letters *c*, *q*, and *z*. The acute accent used

over vowels alters phonetic value.

GAELIC. This is a Keltic language. It uses the Latin alphabet but omits *j, k, q, v, w, x, y, z*.

Romance Languages—

SPANISH. (Castilian) No exceptions except for *ñ* which affects pronunciation.



POLISH MAP OF NORTHWEST POLAND AND PORTION OF GERMANY

This map renders the German names in Polish form. Compare with German map of same area on opposite page.

ITALIAN. Omits *k, w, x*, and *y*.

PORTUGUESE. Uses Latin alphabet adding diacriticals affecting sound.

ROMANIAN. Alphabet same except diacriticals to represent Slavonic sounds. (*k, y* only in foreign words.)

Other Romance languages not considered important enough to detail here are: Catalan, Provençal, Rhaetic Sardinian, and Walloon.

Slavonic Languages—

Some use the Latin and some the Cyrillic alphabet. Only those using the former are listed here.

SERBO-CROATIAN. These two languages are almost the same, the exception being that Serbian is written in the Cyrillic (differing slightly from those of Great Russian) while Croatian is written in Latin characters with diacritical signs modifying the phonetics.

SLOVENE. (Slovenski) Very closely related to Croatian, but omitting *d, č, g*.

BOHEMIAN, or **ČESKY.** Latin alphabet with diacriticals. Letters *f, g, q*, and *x* occur in words of foreign origin only. Uses the diacriticals *ˇ, ~, ̂, and ̃*.

SLOVAK. (Slovensky) Closely related to Česky, but omitting three letters of the latter and adding three of its own. These are the Česky *ě, ř, ů*, and *ä, p, ô*.

POLISH. Has the Latin alphabet less *q, v*, and *x*. Combines letters.

ALBANIAN is not considered a Slavonic language, but is mentioned because of its peculiar character. It adopted the Latin alphabet in 1908 after undergoing a long period of confusion resulting from the combined use of the Greek and Turkish alphabets. As used today the Latin alphabet is simpler than the previous two, but the name situation is too complex for treatment here.

FINNISH is one of the Finno-Ugrian languages, and is closely related to Magyar (Hungarian). It omits *c, q, x*, and *z*. It uses *b, f*, and *g* (except in *ng*) only in foreign words. Combines letters also. Since Finland gained its independence their maps have used Finnish and not the old Russian forms of place names.

TRANSLITERATION

Languages of countries which do not use the Latin alphabet require transliteration. This is the process of transposing the letters of a name from one alphabet to another.

Transliteration is done from tables which list the foreign alphabet and its English equivalent. Much study has

been devoted to the subject and these tables should be accepted without question.

The Royal Geographical Society of England publishes a text on this subject which is titled, *Alphabets of Foreign Languages* (RGS Technical Series No. 2), which contains the official British tables of transliteration. It is used by the British Army and all government agencies in map making.

The United States Department of Commerce publishes a similar text which serves in somewhat the same capacity in this country. It is titled *Foreign Languages* and is obtainable at the Government Printing Office,

Washington, D. C. There are a few differences between the two publications in the transliteration of certain foreign letters. However, our publication should be the authority in such differences. These two booklets list practically all of the main languages in the world with the English equivalents of all the foreign letters or characters.

The following are two examples of the use of such a table, the first in Russian; the second in Greek:

The Russian map name *ОДЕЦКА* when transliterated into the Latin alphabet appears as *ODESSA*.

The Greek 'Αθρ.νζ.' appearing on a map would not look familiar until transliterated into the Latin alphabet when it would result in *ATHÉNAI*.

The alphabet least removed from our own (Latin) is the Cyrillic. The Greek alphabet has only a few letters identical to our own, and thus a step beyond the Cyrillic. The Irish alphabet also requires transliteration as it is much different from the Latin. Asiatic and African scripts, such as Arabic and Amharic, represent more difficult languages to transliterate than the ones already mentioned.

The Cyrillic is based on the Greek, but uses a few Latin letters. Some of its characters are of unknown origin. Russian is the principal Slavonic language using this alphabet. Bulgaria uses an alphabet simplified somewhat from the Great Russian. Ruthenian and Ukrainian also use the Cyrillic, but they differ from Russian in omitting some letters.

FOREIGN MAPS IN GENERAL

The following are generalities of the cartography of some foreign nations:

German cartography is thorough and extremely detailed. Maps are accurate, but their detail too often destroys clarity. They use contours, shading, and hachuring to portray relief. They are experts at hachuring and use it extensively, often in a heavy color. Their symbols are well conceived, and on topographical maps they are extensive. They have studied the geography of the world and have produced excellent maps of some portions of it. Europe they have mapped thoroughly.

French maps are likewise accurate, and in recent years they have achieved a very likeable clarity. Their study of



Portion of French map, scale 1:200,000, used in World War I

geography has also been comprehensive. They have been very careful in mapping their colonial possessions. At the start of this present conflict the best maps of the northern two thirds of Africa were French.

British maps have an excellent standard of cartography. They have been compelled by the nature and extent of their many far off possessions to study geography and produce maps. Likewise, they have pioneered in the study of foreign place names, and in the transliteration of such. They have produced the best of the few maps which exist for such little known countries as Tibet, Sinkiang, Afghanistan, and parts of Ethiopia. Nomenclature and symbols are clear and concise.

Netherlands (Dutch) maps are likewise of high standards. Their maps contain a wealth of detail, yet possess good clarity. Their maps of the Netherlands East Indies are excellent.

Belgian maps are similar to those of the Netherlands.

Italians have increased their mapping activities since World War I. They have been active in producing new maps of North Africa, and had good maps of the little-mapped Ethiopia when they started their conquest of that nation. They have a tendency to use the Italian form on foreign names.

Spanish maps (of Spain and its possessions) are few and poor compared with those of other nations. They have not been very energetic, and their maps reflect this lack of application.

Danish, Norwegian, Swedish, and Finnish maps resemble one another in their clear style of cartography. They use very little color, but produce good maps.

Russian maps have been difficult to obtain during the past twenty years, but the Russians have been active in map making. They maintain an excellent standard of draftsmanship and to all visible standards their maps are very accurate. Symbols are often complex, and town symbols are keyed to populations. In the Siberian area roads and trails are shown in terms of summer or winter use.

Turkish maps before World War I used the Arabic script. Since then, some maps have appeared in French and English texts. Except for the past two decades they have been backward in the production of maps.

All British, French, Netherlands, and Belgian colonies throughout the world have been mapped to a fair degree. Europe is still the best and most thoroughly mapped section of the world.

CONCLUSION

No person can deny that the aerial photograph, or photo map, is the best suited for military purposes, because of its

timeliness. However, the photo map must be supplemented and controlled by maps of various kinds. The United States has had too big a problem in mapping its own territory to concern itself with the mapping of other sections of the world. Furthermore, our possessions are no longer the main theaters of operation. Thus, in operating on foreign soil we may find ourselves making use of foreign maps.

TRANSLATION OF ENGLISH GEOGRAPHICAL TERMS

<i>English</i>	<i>German</i>	<i>Norwegian</i>	<i>French</i>	<i>Spanish</i>	<i>Portuguese</i>	<i>Italian</i>
City, town	Stadt	stad, by	ville	ciudad	cidade	città, civita
Borough	flecken	flaekke	bourg	villa	villa	borgo
Village	dorf	landsby	village	pueblo, lugar	villagem, aldeia	villaggio
Hamlet	weiler	torp	hameau	hacienda	casal	casale
				villorio		
Fortress, fort	festung, fort	faestning	forteresse, fort	fuerte, presidio	fortaleza, forte	fortezza, forte
Gate	tor	port	porte	puerta	porta	porta
Castle, palace	schloss	slot	château	castillo	castello	castello
House	haus	huus	maison	casa	casa	casa
Bridge	brücke	bro	pont	puente	ponte	ponte
Land	land	land	pays, terre	tierra	terra	terra, paese
Coast, shore	küste	kyst	côte	costa	costa	lido, riviera
Island	insel	ø	île	isla	ilha	isola
Peninsula	halbinsel	halvø	presqu'île	peninsula	peninsula	penisola
Plain, field	ebene, feld	slette, mark	plaine, champ	llano	plano	pianura, campo
Desert	wüste	ørk	désert	desierto	deserto	deserto
Heath	steppe	steppe	lande, prairie	páramo	sertão	landa
Fen, marsh, swamp	sumpf	sump	marais	pantano	pantano	palude, maremma
Forest, wood	wald	skov	forêt	selva	selva	foresta, boseo
Plateau	hochebene	høislette, fjeld	plateau	meseta	plamura, planalto	altipiano
Mountains	gebirge	bjergkjaede	montagne	montaña	serra	montagna
Chain, range	bergkette, höhenzug	bjergkjaede	chaîne de mont	sierra, cordillera	serrania	catena
Cape	vorgebirge, kap	forbjerg	cap, pointe	cabo, punta	cabo	capo
Rock	felsen	klippe	rocher	roca, peña	rocha, penha	rocca, sasso
Mount	berg	bjerg	mont	monte	monte	monte
Peak	bergspitze	tind (-top)	pic, cime	pico, cerro	pico	cima
				cumbre		
Pass	pass	pas	col	paso, silla	passo	passo, colle
				puerto		
Valley	tal	dal	vallée, val	valle	valle	valle, val
North	nord	nord	nord	norte	norte	nord
South	süd	syd	sud	sur	sul	sud
East	ost	øst	est	este	este	levante
West	west	vest	ouest	oeste	oeste	ponente
Snow (snowy)	schnee (ig)	snee	neige	nieve (nevado)	neve	neve
Water	wasser	vand	eau	agua	agõa	acqua
Spring, well	quelle, brunnen	kilde	source, puits	fuelle	fonte, poço	fonte, sorgente
Rivulet, brook, creek	bach	baek	ruisseau	arroyo	ribeiro	rivo
River	fluss, strom	flod	fleuve, rivière	rio	rio	fiume
Mouth	mündung	mynding	bouche	boca	boca	bocca (bocche)

<i>English</i>	<i>German</i>	<i>Norwegian</i>	<i>French</i>	<i>Spanish</i>	<i>Portuguese</i>	<i>Italian</i>
Lake	see	sø	lac	lago	lago	lago
Sea	meer, see	hav	mer	mar	mar	mar, mare
Gulf	meerbusen	havbugt	golfe	golfo	golpho	golfo
Bay, bight	bai, bucht	fjord, bugt	baie	bahia	bahia	baia, seno
Sound, channel	sund, kanal	sund				
Straits	strasse	straede	détroit, canal	estrecho	estreito	{ stretto bocche, canale
Lagoon	haff, lagune	haff	lagune, étang	laguna	lagõa	laguna, stagno
Port, harbor	hafen	havn	port	puerto	porto	porto
Great, big, large	gross	stor	grand	grande (gran)	grande (gran)	grande (gran)
Little, small	klein	ille	petit	pequeño, menor	pequeno	piccolo
Long	lang	lang	long	largo	longo	lungo
High	hoch	høi	haut	alto	alto	alto
Upper	ober	övre	haut, supérieur	alto	alto	superiore
Lower	unter	nedre	bas, inférieur	bajo	baixo	inferiore
Old	alt	gammel	vieux	viejo	velho	vecchio
New	neu	ny	neuf	nuevo	novo	nuovo
White	weiss	hvid	blanc	blanco	branco	bianco
Black	schwarz	sort	noir	negro	negro, preto	nero
Red	rot	rød	rouge	rojo, bermejo	roxo, vermelho	rosso
Green	grün	grøn	vert	verde	verde	verde
Blue	blau	blaa	bleu	azul	azul	azzurro
Yellow	gelb	gul	jaune	amarillo	amarelo	giallo
Fine, fair	schön	skjøn	beau	bello, hermoso	bello, formoso	bello
Saint	heilig	hellig	saint	santo, san	são	santo. san



"H-m-m-m . . . that's a toll bridge . . . m-m-m-m, eight thousand men . . . and all our trucks . . . m-m-m-m . . ." JAY ??