WHAT IS DESIGN?

HIGHWAY TO THE KREMLIN
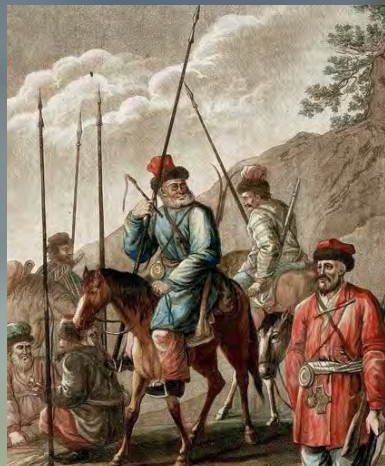
Jean–Baptiste Antoine Marcelin MARBOT

Colonel of the 23rd Chasseurs à Cheval, 1812

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20.3 MARCH ORDER CHANGE (v. 7.35)

March Orders to Reinforcements:

"A Reinforcement Force may be placed under a March Order (or several different March Orders)."

In the last issue (Vol V, Nr. 1) Vince Hughes wrote, on page 14, the change seems to go against the

"spirit of 20.22. However I see the reason why you would want to use it in situations where the weather greatly reduces the movement rate for artillery."

I agree that being slowed down by the artillery is realistic; this new bit of text allows you to re-stack your column to get the cavalry and infantry moving freely. This gives you credit for an above average chief-of-staff.

There were regulations specifying at what times the infantry should march with their guns, ready for battle. Some ammunition also had to be near at hand. The wheeled units stayed on the roads, forcing the other troops off them.

Sending your infantry ahead, alone against artillery can be costly. So generally, when in the presence of the enemy, the artillery would be interspersed in the infantry column, and the whole would have to move more slowly. However, if we are talking of a column that is far from the enemy, and the security of the column isn't at stake, then the cavalry at least could move more freely. Note, however, even though cavalry has that "6" or "7" MPs, they didn't like to move at speed all the time; in fact they could not and retain any punch for battle. Sometimes the cavalry didn't even march at the head of the column. (Their walk is about the same speed as a man's, 3-4 MPH).

We want to make sure that troops can make their historical marches, but the game runs a little hot. 8 hexes on a road is quite fast: in 8 hours you cover 19 miles. The truth is these Movement Allowances are set to run in the heat of battle, not an average day's march. Seven hexes/turn for 8 hours is probably about right.

A March Order is limited by the ability of HQ (general and staff) to plan and order the movement (before they get distracted by something more immediate). For instance, for Ney to write an order to Dupont to cross the Danube, but then Murat disagrees, and Dupont ends up fighting a successful battle instead: the M.O. was not accepted in 1805 (i.e., it doesn't exist). That 1805 chain of events is represented in the game by a severe lack of March Orders.

It does make sense to give some flexibility if we are talking of an entire Corps Formation with its officer (and HQ staff) present. In that case, Berthier sends **one** order to the Officer, who in turn makes the dispositions he thinks best. Only he knows the layout of his corps and which units should move first. On the other hand, if we are talking a column of disperate elements, not from the same corps and without an officer, then that whole column should have to move under one and the same march order.

We chose to leave out the requirement to have an officer present. But it could be included as a House Rule.

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Battles

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Principles of Design

Kevin Zucker in the 1970's

AT **SPI** IN THE 1970'S I WORKED AS MANAGING EDITOR, FEEDING MARKED-UP COPY TO THE TYPESETTER. OUR OFFICE WAS AT THE HINGE POINT between the R&D Dept. and the Art Dept., with one door facing each direction. At times there was a line of R&D staffers waiting to get in, to go over questions on their games. My job was all about copy flow, and I had a chart that showed the state of each job as it moved through all the stages of editing and production; something like being in the tower of a railroad switching yard. You don't want too many wrecks.

My direct supervisor was Redmond Simonsen, and in the Art Dept. Dunnigan had nothing to say. The visual appearance of the games was entirely Simonsen's baby and he didn't do collaboration. However, he was happy for me to take on the mundane chore of copy flow, just as long as I knew where my boundaries were. From where I sat I saw both sides of game development: Word and Image. I learned to work both sides of that equation; in the final analysis primacy was with the word. Therefore the words had to be clear and succinct, with a minimum of ambiguity and verbiage. I got to watch a pile of typewritten pages and hand-scrawled components turn into a real game, amazingly enough. "Game Design" and "Graphic Design" merged into one complex process called "Systems Design," embodying a favorite word of Simonsen's, "Heuristics," meaning: how handy are the charts and other components to use. It was only from that synthesis that a design became "an SPI game."

For example, Simonsen's first wargame maps were printed in one color. In place of black, he used deep photo brown (PMS 469).

This was a very clever choice and shows a lot of thought. This color impersonates the color of mud and the dark earth, and it is almost as strong as black. It can be used solid (100%) to show roads and "map tags," or it can be tinted back to 20% for the hexgrid, and 40% to show hills and slopes.

PANTONE 469 C

Very soon the maps were being printed on a 2-color press, and blue was added (Cyan). For a long time all the maps had just these two, even after I joined the Art Dept. Finally in 1976 red and yellow were added, and this created a lot of visual interest. For the first time we could have all the colors of nature, plus red for highlights. (We never did use 4-color process CMYK, but instead used solid color, reducing the hazy effect of screened color.)

I watched Redmond work as he gradually added red and yellow; yellow with blue produces a bonus color, green. Project by project Simonsen practiced slow evolution. He was producing so many maps that he could go step-by-step until he had the whole panoply working together.

This step-by-step process works just the same in other areas of game design. Let's say you have a well-tested game but then new sources reveal a complete re-do of the road net or maybe hills are missing in important locations. One has to slow down and make the road changes first, and test it to see if it affects game balance. Then, if that seems okay, you might try adding some hills, swamps, or other features, and then test it again.

Kevin Zucker

Wargame DESIGN

In this Issue

SUPREME EXCELLENCE CONSISTS OF BREAKING THE ENEMY'S RESISTANCE WITHOUT FIGHTING

—Sun Tzu

This is how to subdue the enemy without fighting and to disrupt the enemy's power. Ultimate victory is when battle has been thwarted, there has been no destruction, no cities have been seized, and no blood has been shed. This is the supreme art of war.

"The majority of military theories that underpin modern U.S. strategy and doctrine are drawn from Napoleonic Era theorists who focused heavily on decisive battlefield conflict. In today's post-information age, however, armed conflict represents the least likely manifestation of competition. The current strategic operating environment demands a deeper understanding of limited warfare tactics, competitive activities below levels of conflict, and information dominance to achieve strategic objectives."

—U.S. Army War College

https://warroom.armywarcollege.edu/articles/non-war/

THE FRENCH II CAVALRY CORPS

IN *FOUR LOST BATTLES*

There were never enough light horsemen for reconnaissance, let alone to keep the army's rear purged of the roving bands of Russian and Prussian irregulars.[1]

Jean-Baptiste Antoine Marcelin
MARBOT

Colonel of the 23rd Chasseurs à Cheval, 1812

Kevin Zucker

GENERAL HORACE SÉBASTIANI'S NEW-LY-REORGANIZED II CAVALRY CORPS avoided major combat in the spring of 1813, filling up with recruits to a strength of 10,900 men by the end of the summer armistice.

"Perhaps the worst part of the army of 1813 was its cavalry. In the first part of the war, up to Lützen [May 2], it numbered but 15,000 mostly old soldiers, 11,000 French and 4,000 allies... Later it was greatly increased in numbers, but the recruits were of very inferior quality and training."[2]

This influx of 9,000 recruits in the II Cavalry Corps is the reason we rated its vedettes with a MA of 5 instead of 7, and limited the number of ve-dettes, in the second edition of *Four Lost Battles* and the first edition alike (see image). The young

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1   John R. Elting, *Swords Around a Throne*, p. 245

2   Petre, *Napoleon's Last Campaign in Germany,* p. 19

conscripts of IIC were leavened by a nucleus of approximately 1,900 veterans and some cadre from Spain. The one exception was Marbot's 23rd Chasseurs à Cheval, which included 70% veterans of the Russian campaign.

"The cavalry was still more difficult to constitute than the infantry. About 9,000 or 10,000 had wandered back from Russia. For the rest, conscripts had to be taken. As far as possible, men were chosen who had some acquaintance with horses. It was decided:

(1) To reconstitute the Guard cavalry entirely.

(2) To reorganize the 52 regiments of the late Grand Army in two corps under Latour-Maubourg and Sébastiani, altogether three heavy and four light divisions. Cadres were to be completed from the regiments in Spain.

(3) A third corps, under Arrighi, was to be formed about the nucleus of one squadron supplied by each of the regiments in Spain."[3]

Bowden gives the IC a strength of 2,782 on 25 April (excluding officers), IIC 2,552 and the GC 3,272. Total 8,606.

He also lists Cavalry March Regiments (4,000), the IIIC (one division, 1,000 men), and the VC under Milhaud, about 2,800 men (the Polish IVC was interred in Austria). Total 7,800.[4]

The total of cavalry with the army was near to the total of 15,000 cited by Petre.

In the IIC, daily attrition rates during the Spring campaign exceeded one percent. By May 16, 1813, Exelmans' Division, for example, was down from 1,480 to 1,041 men.[5] By the end of the armistice, with the influx of replacements, the II C totaled 8,985 officers and men, with another 1,913 recruits in the pipeline en route to the front. The replacement of experienced horsemen with neophytes resulted in the reduction of the corps' effectiveness for the autumn campaign, as reflected in the Initiative and Movement Allowances of the units.

Looking at the counter sheet for *Four Lost Battles* (above), the vedettes of IIC have a short MA

I play fast & loose with the quantity of vedettes, depending on how many I want the players to have and the quality of the cavalry. Some regiments in 1813 weren't that great. There were a lot of cavalrymen who could barely sit a horse.

of 5 and an initiative of only (2). In addition, four regiments of vedettes in the IC were also given 5 MP, in the brigades of Montmarie and Heimrodt. (not pictured).

On the other hand, the troopers in the IIIC, IVC and VC performed well. "The veteran French cavalry mostly served in the III, IV, and V Reserve Cavalry Corps while the I and II Reserve Cavalry Corps were mostly formed of newly raised squadrons."[6]

"The re-created regiments (in different states of training) in the I and II Cavalry Corps often showed weakness on the battlefield, while the veteran cavalry withdrawn from Spain mostly served well in the III, IV, V and V bis Cavalry Corps."[7]

The French IIC has 7 vedettes (see image above), four in the 2 LC Division and the 3 in the 4 LC Div. Since we never assign a single vedette to a cavalry unit, we combined the three vedettes of the 4 LC under Maurin. (This allocation didn't change from the 1st to the 2nd Editions.) It's not that their horses were slower, but in the aggregate they are just meandering around and not doing their job as well as others.

One French cavalry regiment (belonging to Davout's Corps) in 1813 was so unsteady their horses bolted at the sound of trumpets, and the unit was scattered.[8]

By contrast, the 23rd Chasseurs à Cheval commanded by Colonel Marcelin Marbot, with a majority of veterans of the Russian campaign, was the only regiment in IIC to maintain good order at the Katzbach. Nonetheless, they were held back from scouting as they should by their division commander. Marbot writes: "If my regiment had been alone at that point, I should certainly have searched the wood; but as Exelmans, who was very jealous of his own authority, had made it a rule that no man of his division was to leave the ranks without orders, I had not ventured to take that usual precaution and for the same reason the brigadier had also abstained from doing so. This

3 Petre, p. 15

4 Scott Bowden, *The Grande Armée of 1813* (rounded)

5 All-cause attrition at 1.68% per day through 16 May.

6 *Four Lost Battles,* Study Folder

7 *Special Study* Nr. 1, p. 18, 2nd ed.

8 Elting, *Swords Around a Throne*

passive obedience went near to be fatal to us."[9]

Quite possibly, Exelmans recognized the poor quality of his cavalry and for this reason imposed the stricture on scouting. Of course, he went too far in extending the same limits on Marbot's excellent regiment.

Some sources mention the collapse of the IIC at Katzbach, but Marbot doesn't describe an extraordinary rout beyond the scene of confusion at the re-crossing of the Katzbach:

"After crossing the Katzbach our troops expected to be safe from the enemy; but the Prussians had sent a strong column across the river … [and we] were astonished to find ourselves attacked by numerous squadrons of uhlans. But several regiments—mine was mentioned by Marshal Macdonald in his dispatch—went at the enemy without hesitation. I do not know, however, what would have happened if General Saint-Germain's division, which had been left behind in the morning and consequently was quite fresh, had not been on the spot to come to our succour. This division, consisting of two regiments of carabiniers, a brigade of cuirassiers, and six guns, attacked the enemy furiously, and drove the troops who had come to cut off our retreat into the river. Then, as nothing is so terrible as beaten troops who resume the offensive, the troopers of Exelmans' and Roussel d'Urbal's divisions annihilated all whom they could get at. This counter-attack was of great service to us, for it checked the enemy, who, on that day, did not venture to pursue us beyond the Katzbach."

For further background, see OSG's Special Study Nr. 1: *1813–The Year that Doomed the Empire* (150-pages).[10]

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9   pp. 380-84 of his *memoirs,* Vol. II of the English Ed., 1892.

10 https://napoleongames.com/collections/special-studies

WHAT IS DESIGN?

How much design is contained within the rules?

Kevin Zucker

How much design is contained within the rules? You have two different series: the Campaigns and the Library. There should be one design for each series and the first game of a series drives the design. The creation of second and subsequent games in each series do not require new design, rather the maps, counters, study, TRC, etc., are researched, developed and tested. Over time there may be some evolution to the rules such as the introduction of Vedettes to NAB. But is this a change in design or, is this merely a change in mechanism at a lower level?

—Tim Carne

THE WORD "DESIGN" ISN'T WELL UNDERSTOOD. SOME GAMERS HAVE CONFLATED the concept of "design" with "research," and think that designing a wargame entails little more than researching the right names for the maps and counters. While those things can be important, they are not the same as design. "Designing" is what begins when you have all the basic elements already in place. Design comes *after* research; it is the process of moving the project from a collection of facts into a playable form, making a game of it.
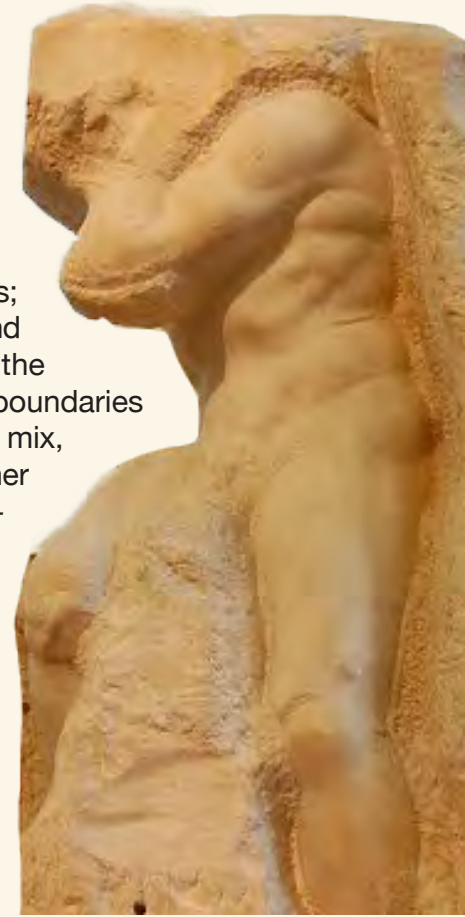
"A design is a plan for the construction of an object or system, or for the implementation of an activity or process, or the result of that plan in the form of a prototype, product or process."
"The arrangement of parts, details, form, color, etc., especially so as to produce a complete and artistic unit; artistic invention; as the de-sign of a rug."

The scenario designer in TLNB has important design decisions; such as, the start and end date of the scenario, the orientation and exact boundaries of the map, the counter mix, the first player, and other decisions *(see "Accuracy is not Enough," on page 28 below).*

Michelangelo speaks of seeing the sculpture inside a block of uncarved granite: "Every block of stone has a statue inside it and it is the task of the sculptor to discover it." That vision is the "design" he is

Michelangelo's unfinished Slave

following, and it can become so clear and distinct as though it was already fully sketched inside the stone. Then, all one has to do is remove the excess material. Antoine de Saint-Exupéry expressed this when he wrote, "Perfection is achieved, not when there is nothing more to add, but when there is nothing left to take away."[1] At the end of the project, the design and the finished sculpture become one in the same; there is no longer a separate design. The design has become subsumed into the final project.

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1 This quote was taped to the wall of my office at SPI, left there by my predecessor in charge of the copy desk.

Would you call someone a sculptor if their art began and ended with the rough-hewn piece of rock? On the contrary, the act of sculpting involves chipping-off pieces of the stone to reveal the design lying within. By the same token, the game designer doesn't feed you undigested facts and expect you to work with that. His job is to reveal the important aspects by carving away what is irrelevant or merely interesting. Many designers are guilty of "kitchen-sinking;" that is, they just include anything that appeals to them without any great concern for the experience of the player, who has the impossible task of working through this shapeless mass of bits and pieces. A well-designed game is a playable (and enjoyable) game; not a part-time job.

> There are three types of people, those who talk about people, those who talk about things, and those who talk about ideas.

As far as I know, the number of true "designers" in this hobby can be counted on the fingers of both hands. Some of these began their careers at that great talent incubator, SPI; others have come along since then.

Before I designed *Napoleon's Last Battles*, I had worked on over 50 games, whipping them into shape for art production. After that, I had a good idea of what good, bad, and ugly design looked like. Using TLNB as an example, a question would be whether and how well the basic system rules fit any of the battle games. Sometimes they fit better than others, most times a few special rules are all that is required, and in a few cases, a revision of the Series Rules was needed. *Bonaparte in the Quadrilateral* covers an early period of the Napoleonic wars when the armies were very small. A reasonable question might be whether the armies are too small, the counter density too spread out, for the game to work well at brigade level. If you examine the counter mix in this light, you will see that there are a number of regiments ("Demi-Brigades" for the French) in both armies. That would be a valid question, but arguing about the spelling of generals' names would only be an exercise in superficial materialism.

Balzac, the author of "Colonel Chabert," declared that pure materialism is a recipe for madness. Most of the world belongs to the culture of materialism, and they don't even know it. Ancient Rome was also materialistic, based on transportation, moving things. They created a network of roads that lasted for over a thousand years, that allowed for trade and the transportation of goods, just as their aqueducts moved water from the mountains to the cities. We take after them. We are concerned about the exterior, but blind to the inner content. When Roman sculptors copied Greek models, they were technically great, but the inner dimension, the focus of the original artist, went missing in the copy.

Do all wargames have a design?

Some games may just "fall together" without any pre-determined design. Are well-designed games usually better than games that are cobbled together?

The effect of poor game design can be quite obvious. A design flaw is usually revealed in play, but an excellent game design is invisible. No matter where we look, there is no actual game design to be seen. Only in play is the architecture of the design gradually revealed. For example, a reviewer might criticize the (seemingly) minimal effect of the lack of supply in TLNB. "It should be more severe than just losing advance after combat." However, when you play the game you soon realize that without advancing you cannot destroy enough enemy units to win. To use a musical analogy, when you just read the rules it's like reading the different parts of an orchestral score. They don't reveal their true synergy until the orchestra starts to play. In Systems Engineering this is termed "Emergence." The whole is more than the sum of the parts; each part interacts with all the other parts in unforeseen ways.

I think there is no way of perceiving the quality of a game design by merely perusing the components and rules. Reviewers spend an inordinate amount of time looking at the components, focusing on graphics and layout as though these revealed something essential about the game. The visible aspect is called "Systems Design," but doesn't get to the core of game design. The vast majority of reviewers only talk about the stuff in the box and never delve into design at all. One notable exception is the series of videos from the Thursday Night Gamers of Pittsburgh.

One example from OSG is the 1997 Edition of *Napoleon at Bay*. Many people had commented

on the lack of detail in combat, which was the Design Intent of the first edition: keeping combat to a minimum allowed a shift in focus onto the administrative and command areas. However, I thought I saw a way to add the wanted combat detail. Rules for reserves, troop quality, and a host of others were added, everything happening inside the hex. Only in hindsight did I begin to realize how the abandonment of the original design shape had led to an unplayable monster. All that was excised in the recent 2020 NAB Expansion Kit, to trim the game back down to the well-designed, fun to play original.

One hallmark of a good design is proper weight and emphasis on each topic. A game design is shaped from the most important topics to the least. Generally, the most important topics get the most coverage and the rules reveal the importance of each topic by how many column inches are devoted to it. Clearly NAB was breaking away from the pack who think that combat has to be the most important topic—it's a "war" game isn't it?

A designer's first design decision is how long it should take to play the game. If it's a long campaign, it might be up to 20 hours. For the TLNB battle games, I wanted these to be finishable in an evening. They often take longer, but as a practical matter for people whose gaming time is limited, I was aiming at 5.5 hours in a chair—between 30 and 60 minutes per game turn. Hence TLNB runs in real time, and doesn't take longer than the actual event. The player is in a real-time situation, making decisions under the same time pressures as his real life counterpart, not more or less. He is not deciding the formation of every battalion.

The overall commander isn't involved in tactics, so those kinds of decisions should be out of his control. Napoleon said that once the battle is joined, the only lever of control he had was in the handling of reserves. TLNB enforces this insight with locking ZOCs which limit freedom of maneuver to the units that are not currently engaged. Once engaged the player cannot affect the front line units. Keeping tight control over the kinds of decisions the player should be tasked with is a paramount concern of the designer.

Design of Charts & Tables

This is a specialty aspect of design. Some designers have it and others have to copy another game. The archetypal Combat Results Table from the early AH games was based on a conversation that Charlie Roberts had with someone at the Rand Corporation. Their combat studies showed that 3:1 odds were required in order to be fairly certain of success. But Charlie had just struck on his CRT with its 3:1 column showing only one sixth chance of complete failure. They called him out to Santa Monica and wanted to know where he got the idea.

Tables are troublesome, and they have to be correct, they have to work correctly. The structure of tables outside of the Combat Table can vary from matrix-type to a multi-dimensional table such as the March Attrition Table in *Highway to the Kremlin*. This table cross-indexes four dimensions of information—march distance, die roll, APs and force size. This table also incorporates a structural concept not to be found in the rules.

The manpower losses resulting on the table are based on the Fibonacci sequence. This sequence guarantees that there will be no "sweet spots" on the table, and it reflects the spiral form of growth in nature, even when devolving toward dissolution.

The Fibonacci sequence is created by adding the last two terms in a sequence starting with 1, as follows: 1, 1, 2, 3, 5, 8, 13, 21.

The Fibonacci sequence defines the "Golden Section," incorporated by architects and even printers and book designers. The same pattern is everywhere in nature. György Doczi described this in his book, *The Power of Limits:* Proportional Harmonies in Nature, Art, and Architecture.

Of course, we still need to set the user interface in a way that realistically reflects the final attrition result. That means the results from a long campaign should be in the realm of the historical result. This is just one example of hidden structure of which players may not be aware.

Special Rules

Each game has features unique to the situation that need their own special design. Each battle in TLNB has Special Rules to cover peculiarities of that situation. Otherwise when we finished the map and the OrBat, the game would be done and we could rest easy. Playtesting would be unnecessary (except to spot-check the set up) and there would be no design challenges on the way to pub-

lication. Thankfully it doesn't go like that.

Design is still needed. Every new situation needs to be shaped into a playable and balanced game. This includes defining the beginning and end of the game, and everything in between.

Prescriptive Rules Versus Series Rules

General Rules apply to all battles in all circumstances: A clear hex costs 1 MP. This is also prescriptive, because the 1 MP cost is arbitrary. Even more prescriptive would be, "All Clear terrain costs 2 MPs for infantry for the rest of the game." Under what circumstances would clear terrain be twice as difficult, suddenly? Perhaps an unusually heavy thunderstorm, such as they had at Katzbach and Dresden. So would it be valid to make a special rule for the Katzbach that adds the effect of thunderstorms on infantry? It was the flood of the century, so why not? We don't really know how bad it was.

When I was designing NAB, a long time ago, I lived near the reservoir in New York's Central Park, and as a good researcher I walked around that reservoir in all kinds of weather and then wrote down the number. Not too scientific, just the subjective impressions of one human. I never minded walking in the rain, but deep mud is another thing. And when you are soaked to the bone and have to fight the whirlwind as well as the enemy, that can slow you down.

Prescriptive rules are popular with miniatures players, and also with 'clockworks' gamers who like a bit of ticking chrome. I like chrome too, but only on important points, to highlight them. Every Special Rule is a failure of design, really.

Prescriptive rules have a laser focus. For example, "The French Player may not advance east of the 0010 hexrow before turn 10," forcing the game to produce a result it wouldn't other-wise produce; an action the Player is forced into.

As a designer, all your options are on the table. So you might need a Special Rule to make the game work. Sometimes special rules are justified but often they are mere bandaids, slapdash fixes that show how the game *doesn't* work. They are a failure of design; at the same time, they are indispensable. They must always be avoided, unless there is no other way.

I don't like to have more than a few special

rules. This was unavoidable in the case of the extensive Roadblocks and Guerrillas. So Special Rules are often used to repair a problem that came up in play, and added in an Update.

With these exceptions TLNB Special Rules comprise a few paragraphs per battle. With bigger problems we discovered that changes were needed to the Series Rules, such as the Chateaux, Bombardment and others which showed up in the course of time.

Design Challenges

A design challenge is an opportunity to have fun with the craft. You think, "How are the British going to be able to hold on at La Coruña?" That game just clicked, as long as we were careful of the exact duration. If the French got one more turn, they would often be in the town. Fixing the start and end points is easy on the player, as it requires no additional headroom.

One problem with Special Rules—if you have them sprinkled around too liberally—the player's head will explode. It isn't nice and creates quite a mess. It is better to have some compassion for the player, who may not be interested in the special attributes of HC when attacking a bridge. Fair enough. But now we are getting to what design actually *is*— to where "there is nothing left to take away."

After *Four Lost Battles*, I had a conversation with a gamer who had played it, and he didn't like that HC rule. When I thought about it, I realized that HC wasn't where my "Design Intent" lay. It's just fun—for some—but for others, a nuisance: Keep on focus.

So it's better to go back through the rules and delete things, which is how I proceeded when it came time for *The Coming Storm.* I decided on certain rules to remove and change. I tried when possible to eliminate one paragraph in each section, one sentence in each paragraph, one word in each sentence. In that way the rules were shortened by a few pages.

Each game has its own design, particular to itself. A game's design is only revealed in play. The rules reveal none of the game's design, almost zero. *Unless* the game doesn't work as intended —then you can see where it falls short of the design, where it misses the target; but when it hits the target, there is nothing to notice. A well-designed game hits the target.

The Retreat Scenario in
HIGHWAY TO THE
KREMLIN

Mark Owens and Kevin Zucker

URING THEIR SOJOURN IN BURNED-OUT AND ABANDONED MOSCOW, IN SEPTEMber and October of 1812, the French troops fared well enough but their horses lacked fodder and wasted away. The III Cavalry Corps, of eleven regiments, could only muster seven hundred horsemen. The Russians had organized flying detachments to harass the French lines of communication, capturing over 15,000 men during the occupation of Moscow. While the French Army was dwindling away, the Russian Army was enjoying an influx of recruits, albeit untrained. Kutuzov received about 50,000 regular troops and 20,000 Cossacks during the month he spent encamped at Tarutino.

To make the best of a bad situation Napoleon would have to march on Tula and Kaluga—centers of the armaments industry—and then retreat through the Black Earth belt, south of the Pripyat—a zone rich in agricultural produce that had been spared the wastage of war. A march in this direction would take time to prepare, as the lines of communication would have to be shifted south from Minsk and Vilna toward Warsaw.

On 19 October the French Army moved out of Moscow for the long march back to Prussia. One in ten soldiers would make it. Tactically, the retreat from Moscow should have followed the leapfrog method that was eventually adopted, with the corps following each other at a day's distance, instead of one long column, thereby reducing attrition and increasing security and protection from

Russian interference. This leaves two questions:

1. What would be the French attrition if the Russian army never pursued, and the French never force marched?

2. How much of the catastrophe can be attributed to the large influx of Cossacks arriving in September 1812.

The Ataman on the Don, General Denisov, announced a total mobilization of all males from 16 to 60 years of age, and 26 new regiments were formed, which in September all approached the Tarutino camp and reinforced the troops at the advance posts. Kutuzov called this event a "noble replenishment from the Don."

The guerrillas ambushed, attacked enemy baggage, and intercepted couriers. They daily reported on the movement of enemy forces, transferred captured mail and information received from prisoners. The corps was divided into partisan detachments, each of which controlled a specific area. The most active were detachments under the command of Davydov, Seslavin, Figner, and Dorochov. The tactical basis of the partisan actions consisted of tried and tested Cossack intelligence, Cossack patrols and "Becket" (outposts), deft Cossack "Venter" (fraudulent and double ambushes) and fast rebuilds in the area.

The French never learned to adopt any of these techniques. They were somewhat at the mercy of irregulars. Only the dragoon veterans of Spain knew how to handle that. A good dragoon colonel from long Spanish experience should have been at IHQ helping to devise a policy to govern interactions with the cossacks. The French needed their own cossacks, which they got too late (Polish ones, who understood the problem).

Napoleon's pride, bureaucratic inertia, and

Ural Cossacks in 1799.

contempt for irregular forces prevented the adoption of an effective tactical riposte. Even the dragoons of the guard got their heads handed to them.

The Emperor might have drawn some conclusions from experience in Spain, where, with no major river or sea supply route, the French had to depend on the long roads to France and local forage. Invading Russia, he ought to have con-

sidered those long roads back to friendly territory would also be subject to the interference of irregulars.

Why did Napoleon not anticipate a solution to irregulars encountered in Spain? Part of the reason may be because the irregulars weren't so active when Nappy himself was in Spain.

When they became an issue, Napoleon was away from the theater.

Lacking direct experience, his disdain for irregulars led him to think the Marshals in Spain just weren't handling the irregulars properly.

There was no known counter to the Cossack tactics. The inability of regular forces to handle irregular ones runs through military history from 1776 to 2000 or so.

Cossacks caused disproportionate losses during the retreat, since none of those lost could be recovered. In the early part of the campaign the wounded had been recovered or sent back home.

Napoleon should have acted like he was invading Saxony in 1806, by sending forth several arrows to cross back into Prussia at the same time from different routes. The problem is that the entire retreat comprised several successive operations, and in each one the army was depleted. Normally, a Napoleonic operation could only last 10-15 days before a complete reset was needed. That is, the retreat should have been executed in three stages with rests in between. Sending the army in one long column was the worst formation to use.

Charles XII went South after the disaster of Poltava. What if Napoleon and the remains of the army had headed further south? At Maloyaroslavets he was blocked and changed his mind, but one last push probably would have worked. Including the territory to the south of the Pripyat allows the player to take an alternate path to Warsaw.

What is
GAME
DEVELOPMENT?

Jean Foisy

WHILE PROOFREADING THE *NAPOLEON INVADES SPAIN* STUDY FOLDER, I NOticed my name credited to "Development." To say the least I was surprised having not being notified of my new title nor what it entailed. Asking Mr. Z what I now must do as a Developer he answered: "*Keep doing what you are doing.*" That answer was a bit of a letdown, not having clear instructions. Finally, it dawned on me...! He meant that I was already, without knowing it, doing Developer's duties.

I'll try to show what a Developer does using my past experiences from 2017 on where I began to give a hand to Kevin and what I've done in *Napoleon Invades Spain.*

To get a better knowledge of the subject I checked the Internet and found useful information and explanations in "Wargame-Creation skills and the Wargame Construction kit." from Peter P. Perla and others, published in 2004.

"Development takes the good ideas in a design and magnifies them; and it takes the bad ideas... and eliminates or at least minimizes them."

This is done by Playtesting:

Test mechanics and procedures for full functionality under the full range of circumstances,
Validate models, data, and scenarios based on historical date or available prospective analysis,
Assess how well the entire package reflects reality...,
Make the necessary adjustments.

Playtesting objectives

Kevin had laid for me his objectives:
A tense, taut game down to the end
Advantage can shift from turn to turn

Play balance at least 1:3 (a side must be able to win at the minimum once in three playings)

My own objectives:
- The end result should give an enjoyable and fun game leaving the player(s) with a convincing image of what the battle simulated looked alike in the real world.
- To do this successfully both Designer and Developer must exchange info, results, ideas, etc. Without a complete understanding, things could go awry at times. Good exchange of information is the key.

How can an average cookie like me do that?

Fortunately, the TLNB series rules are done. So development is limited to the specific situations simulated in a particular gamebox. It's a lot easier to integrate the battles to already set rules than to start from scratch.

In *Napoleon Invades Spain* there are four battles, *Vimeiro, Espinoza, Tudela* and *La Coruña* and many players did playtests. I'll use playtest results to show how it was done. I'll restrict my examples to *Vimeiro* and *La Coruna,* both scenarios I designed and playtested.

The main subjects to take care, for me and Mr. Zucker are:

- the VP hexes
- ORBAT adaptations
- the flow of the scenario
- the ALT reinforcements
- the play balance.

Vimeiro playtest

The battle of Vimeiro is a strange battle. Junot decided to conduct his forces toward the British landing site, but left his best troops at Lisbon. Probably to prevent an insurrection. But that's another story! The main challenge from my point of view was to make that scenario an entertaining game. First playtests showed the French being unable to harm the British due to a deficit of Strength Points; 43 to 28. Remember Junot left his better forces in Portugal's capital. This imbalance would make a French victory quite impossible.

Here are some of the adjustments we made to attain a better balance. Some British units had their Initiative Ratings reduced from 4 to 3, thus lowering their SPs. [Tied to a reduced Initiative are reduced SPs]. We also restricted Artillery movement to one unit per turn. Quite historical since Wellington suffered a shortage of horses. Likewise the French may win immediately if they control Vimeiro at the end of any British turn. Playtest also showed a possible complete destruction of the French forces. To curb a British pursuit we made a Special Rule where upon General Burrard's arrival, the bona fide British C-in-C, the game ends.

Even with all these changes a French victory is far from certain. So we provided a French Free Setup to gave them the possibility of overriding Junot and use Lisbon's troops.

La Coruña playtests

Soult's objectives were to control of the heights surroundings La Coruña where he can put guns to bombard the Royal Navy's ships in the La Coruña Bay and Del Orzan Bay. The VP hexes were set to 1606 and 2006. These heights will be the focal

points of the battle.

The first three tests showed the French being unable to reach the VP hexes. The game starting at 2PM and the Night setting at 5PM left only three turns to reach and control those hexes. That was almost impossible since the Night Combat rule (rule 25.71) being in effect, precludes any Advances after Combat. Kevin and I toyed with the idea of adding more Day turns. Further playtest showed that it helped the French, but not to the point of shifting the play balance. Finally, an End Around the Right of Moore's Army succeeded in unhinging decisively the British line. Other players findings concurred with that.

To attain play balance some French units had their Initiative Ratings downgraded while some Brits were upgraded. In fact I had overestimated the Initiative Ratings of the French Army failing to take into account that they were at the end of long and difficult pursuit in bad weather while Moore's men was seeing the end of their misery with both Bays full of Royal Navy's ships. The British setup was also altered to give a more depth to the defence.

Summing up

These two examples(Vimeiro and La Coruña) were used to show some of the adjustments made to attain a "taut and enjoyable play" and play balance.

The adjustments made were mostly:
- Some Initiative Ratings were modified but these Ratings didn't alter the Orbats per se, Initiative Ratings being the subjective part of Orbats creation.
- Reducing movement of some units
- Modifying setups
- Changing Victory conditions
- Using Special Rules to help a side
- Changing the starting or ending turn

Those kinds of adjustments are, to me, the core of the Developer's job; taking into account the playtests results, the suggestions made by playtesters, adapt and conform them with the intent of the Designer.

EDITORIAL

Imagination IN GAMING

NAPOLEONIC BATTLEFIELDS WERE USUAL-LY CHOSEN FOR A MIX OF ROLLING TER-rain, woods, and rivers. The terrain types in the game are harmonized by relating them to an idealization of the real world. The primary goal of both graphics and LOS rules is to put you into an intuitive 360° relationship to the terrain in a way that is clear, easy to implement and without exception.

The design started with the basic terrain types chosen. We have to represent any topography with only 5 different hex1 and 6 hexside types.2 That is the absolute minimum we could manage.

The terrain symbology works hand-in-hand with the rules and charts. The specifics of the ground have to dovetail with the general rule. Presenting this material requires clarity about what we are doing—trying to convey this coded information in a way that is invisible to you but still communicates. The art of designing is to simplify while avoiding exceptions.

It really helps that our map man spends time on encampments and hiking in the mountains...

While the terrain analysis of our maps presents no problems to the vast majority of players, a few are constantly plagued with an inability to grasp simple concepts. When asked to "use their imagination," or to visualize the situation on the ground, they act like they have been caught with their hand in an empty cookie jar. They have no idea what to do. Perhaps they are city dwellers who have never wandered in nature, or the reason could be they have no imagination to work with.

That isn't their fault. They live in a society where no imagination is necessary or desirable. Their minds have been crushed with literalism and the imagination has sunk to a debased level.

The poet Robert Bly talks about this very old problem:

> The languid strings do scarcely move!
> The sound is forced, the notes are few.
> – Wm. Blake

"Sometime in the thirteenth century, poetry in England began to show a distinct decline in the ability to associate powerfully. By the eighteenth century, freedom of association had become drastically curtailed. The loss of associative freedom shows itself in form as well as in content. The poet's thought plods through the poem, line after line, like a man being escorted through a prison…

In the eighteenth century many educated people in Europe were no longer interested in imagination. They were trying to develop the "masculine" mental powers they associated with Socrates and his fellow Athenians—a demythologized intelligence, that moves in a straight line made of tiny bright links and is thereby dominated by linked facts rather than by "irrational" feelings.

The Europeans succeeded in developing the practical intellect, and it was to prove useful. Industry needed it to guide a locomotive through a huge freight yard; space engineers needed it later to guide a spacecraft back from the moon through the "reentry corridor."

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1 Chateau, Marsh, Orchard, Town, Woods

2 Bridge, Crest, Ford, River/Lake, Slope, Stream/Trestle

Nevertheless, this routing of psychic energy away from "darkness" and the "irrational," had a crippling effect on the psychic life. The process amounted to an inhibiting of psychic flight, and as Blake saw, once the European child had finished ten years of school, he was incapable of flight. He lived the rest of his life in "Newton's sleep."

The Western mind after Descartes accepted the symbolism of black and white and far from trying to unite both in a circle, as the Chinese did, tried to create an "apartheid." William Blake declared that to be afraid of a leap into the unconscious is actually to be in a state of "experience," characterized by blocked love-energy, boredom, envy, and joylessness. Another characteristic is the pedestrian movement of the mind; possibly consistent fear makes the mind move slowly. Blake could see that after 1,800 years of no leaping, joy was disappearing, poetry was dying.

Imagination is More Important than Knowledge[3]

Every year as I embark on a new design, I like to look back at the one just completed. This helps me see where I want to focus my efforts and to name that goal specifically. A game design can be likened to, say, a painting. A painting has a focal point, it has important things standing out in the light, and others in shadow. Unimportant areas of the canvas are entirely dark. The whole composition is methodically crafted; it doesn't just fall together.

Now, a painter doesn't want anybody coming along and telling him to fill in all that detail. On maps I put my focus on the area the battle took place. What goes on at the other end of the map doesn't concern me that much. My focus isn't there; for the reason that, probably, no fighting will take place there. You're just passing through, if that.

---

3 Albert Einstein

The terrain analysis, orbit, and the rest, are tasks that I have to perform before development can commence. I suspect that most take it all as a given, not realizing or caring how laboriously the maps and counter mix are developed. I suppose the gamer thinks there is "one book," (perhaps Digby Smith), that I just go to and crib the whole thing; and he may even chide me for departing from gospel. I'll admit to using Digby, but it has limitations. His compiled list of regiments is predicated upon officer casualty reports and is usually incomplete, if not just wrong...

OSG's development process begins with constructing the narrative in the Study Folder, based on a wide variety of sources. Our game is built around the ideas in the study folder, and this shows us how the game should work. That is the first place you should look, to get your imagination in gear, to understand the big picture that the game is trying to show. Start from the top level and work your way down to the details. Don't start with the details.

Some think a game should also be a historical document, fulfilling the same purpose as a history book. That is understandable, but it would be a mistake for us to try and fulfill that expectation. A history book doesn't have to "work." You read it and it has its own internal consistency, or it doesn't, but it stands and falls on the writing alone. A game, on the other hand, is an interactive process. All the parts have to work together to produce an experience. You can gain profound insights from using a wargame to explore the campaigns of Napoleon. However, games should not provide more detail than is necessary for the game to operate. If they try to do that, it is called "Kitchen Sinking," which puts an unnecessary burden on players.

A game is only a game when played. OSG games sell themselves, because of the player experience they offer. Perhaps other companies can disregard playability and rely upon collectors to snap up their products anyway. That is what can happen if you lose focus and try to provide a textual object.

Despite the impression left by many boring and repetitive "Unboxing" videos, our product is not just a box with some printed components.

> A game is only a game when played. OSG games sell themselves, because of the player experience they offer.

The rules and other trappings have only one purpose: to get you into the experience of play. We are selling this experience, not a collection of unconnected facts.

OSG produces games of great historical depth, yet most videos barely skim the surface. I much prefer After-Action-style videos, which can bring out some of the qualities of the game. The very best ones are the game play videos of the Thursday Night Gamers from Pittsburgh.[4]

I would like to see a video "go deep" to reveal the actual historical and design content. Instead of showing a map and merely commenting on its appearance, why not an in-depth analysis of the terrain? Instead of just showing the counter sheet, how about an analysis of the armies, their strengths and weaknesses? Instead of just showing the Initial Set Up cards, how about going through the data we compiled to show how we arrived at unit evaluations? Instead of flipping through the rule books, how about delving into those rules to reveal how these games differ from the average? Why not include the entire history of the battle, illustrated with the situation on the actual game map, so that the moves can be dissected in detail and all the important locations shown?

Imagination is the capacity to make associations among all these details and synthesize them into patterns. When you look at a game, do you see numbers and letters and squiggles of ink and get bent out of shape when the squiggles don't conform to your idea of perfection? That is missing the forest for the trees—the scenic overview which only comes into focus when you let go of the picayune detail. The imagination is a sacred part of our human inheritance. It gives artists the power to create and art its power to affect our lives. Without that power, it's a flat and two-dimensional world. That is what happens when the left brain becomes completely dominant.

You will enjoy OSG games the most by engaging your right brain and left brain, intellect plus imagination, to receive a complete image.

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4 https://youtu.be/QdAeBrGUY6I

Ricochet Fire and LOS:

THE GUNNER'S VIEW

Kevin Zucker

"Our group ignores slope hexes and only considers the hexsides. Doesn't interfere with our enjoyment of the games. That's just a house rule."

—Chris Moeller

THERE ARE DIFFERENT INTERPRETATIONS OF THE IMPACT OF TERRAIN ON BOMbardment that all have validity. I tend to lean more toward a restricted interpretation myself.

When an artillery unit is ordered to fire on a certain target, how is that order going to be carried out? What would be involved once a battery receives the order to shoot at a target 1,000 or 1,500 yards away? First, the target has to be visible to the gunners.

Line of sight has two different game functions:
1. During the LOS Steps units are revealed;
2. During Artillery Bombardment and Reaction Fire (Field of Fire).

Those two kinds of LOS are for "eyeballs" and "cannonballs." Artillerists require a clear view all the way to the target, more than just knowing a unit is over that hill somewhere.

Artillery fire in this period was direct fire. The gunners had to be able to observe their target and see how their shots were landing, to gradually correct their aim. A gunner would prefer an open field of fire to bounce the cannon balls off the top of the terrain. There are always nooks and crannies and

> Artillerists usually sought areas of flat, hard, open ground, devoid of obstacles or irregularities.

streams, bumps and ridges, inherent in the way water erodes earth. A slight rise would be OK. But folded, rough, or obstructed terrain between the artillery and the target makes aimed fire impossible, *even if* the target can be seen.

A battalion at 1,100 yards is smaller than a postage stamp relative to the gunner. A field of fire is not so much about "can I see unit X," but, "can I see my own cannonballs landing near unit X." Maybe they see some of the enemy but, if they cannot see their own fire, they won't know wheth-

KEITH ROCCO
©'11

KEITH ROSSO ©'07

er it is telling or whether it is traveling over their heads or burrowing into the earth.

The guns required a field of fire, a flat or gradual slope, open ground to their front— level terrain for cannonballs to skip and bounce into their target. Anything less than that and you are expending ammunition with very little effect. Maybe you can see a unit, but can you fire with effect on it? I suspect that gamers have WWII artillery in mind, that can rain death down from the sky. In the 19th century, artillery wasn't like that.

In order to fire effectively, the gunners have to see the cannonballs' flight and trajectory. Firing blind puts you off the chart. As the excerpt below states, gunners set up their batteries with a flat field of fire to their fore and didn't try to fiddle around with crests and slopes.

Napoleonic Artillery Battlefield Deployment and Use

http://www.wtj.com/articles/napart/

The positioning of artillery was of the utmost importance. While common sense may lead one to believe that high ground is always the best place from which to fire, this was not the case during the Napoleonic era. Artillery usually fired iron balls, called roundshot or just "shot," which was most effective when fired at a level trajectory about chest high. If allowed to pass straight through ranks of men, the shot could cause enormous destruction. Ultimately the ball would bounce several times and begin rolling, still capable of tearing off feet or breaking ankles. If fired from high ground, or on a steep trajectory, the shot would hit the ground at such an angle that even if it hit anyone, the "bounce zone" would be much shorter. As a result, artillerists usually sought areas of flat, hard, open ground, devoid of obstacles or irregularities. It was across these areas of hard, bare ground that artillery could grind an assault dead in its tracks! One benefit of high ground would have been the slow approach it forced on attacking units. Artillery stationed on high ground was, if time allowed, placed behind makeshift redoubts and issued plenty of shotgun-like case rounds to use against enemy units as they toiled upslope ...

Artillery batteries (usually called companies at this time) appear to have had the natural tendency to fire to their immediate front. People who do military simulations for this period may be familiar with the common practice of converging the fire of several batteries onto single targets, even at long range.

The evidence points against this as a common practice. The few accounts available indicate that artillery batteries had an overwhelming tendency to fire what might be called "area fire" to their front.

The occasions when fire was converged onto narrow points seem to have been when the targets were well defined, such as buildings, active enemy artillery batteries or very specific lone units. Even then this was when the guns were handled by well-trained gunners who could think clearly while being shot at. This is not to say that artillery at this time did not concentrate their firepower; certain commanders were renowned for their ability to concentrate artillery fire. But the overwhelming tendency in the heat of combat was for the gunners to fire straight to their front.

Another problem with target selection was battlefield smoke and the possible difficulty of identifying friend or foe. According to eyewitness accounts, some period artillery batteries could not tell the difference between friendly and enemy troops as close as 800 yards if they were engaged. This helped to negate the theoretical maximum range of 1,500 yards for larger guns. Once they did begin firing, artillerists would likely continue firing even though their own smoke blocked the view to their front. ...

The descriptions below give an idea how the various results would look in an actual battle (examples from 1812 to 1814 and others). [1]
- **<1, no effect]** In 1807 at Konigsberg, 13 men were hit by a single roundshot, and at Hanau in 1813, nine.
- **[8+, no effect]** At Wagram regiments bombarded all day by the full weight of the French artillery lost only 1/8 of their strength." (Griffith, "French Artillery" pp 13-14)
- **[<1, no effect]** In 1812 at Polotzk 3 French guns fired "upon a Russian battalion for several hours. The Russians suffered only 3 casualties because they conducted a series of small

1 From *Wargame Design Magazine* Vol IV., Nr. 4, 2018 Descriptions from *Napoleon, his Armies and Enemies*
http://napoleonistyka.atspace.com/artillery_tactics.htm#_accuracy_tests_for_artillery

Image from Google Earth, in the area of hex 4521
(near Ocaña, Spain) looking upslope.

The columns kept coming in steady pace until canister shattered their front ranks. The leading officers and grenadiers fell down killed or wounded and the columns again halted. The French poured more canister and the attackers broke and fled.

movements to the left and to the right."

- **[6+, De]** During the advance against Russian positions at Craonne (1814) Marshal Victor was wounded in the thigh and the command devolved on Boyer de Rebeval. His infantrymen found themselves in the open and under heavy artillery fire. The young conscripts were shaken. They did not dare either to advance or to retire. A retirement to the shelter of the wood would have involved a risk of panic. "The young soldiers behaved better than might have been expected, but they lost terribly; the 14th Light Infantry Regiment lost 30 officers out of 33, and the regiment was mown down like a field of corn." (Houssaye - "Napoleon and the campaign of 1814" p 151)

- **[1, 1R]** In 1805 at Austerlitz, the Russian horse battery advanced against French infantry formed up across the road to Blaziowitz. The French stood motionless under the fire of 8 guns firing directly at them. Within moments 400 soldiers were either killed or wounded. "Our soldiers, motionless, endured this fire with the greatest intrepidity."

- **[4-5, De]** In 1807 at Friedland the 3rd Battalion of Russian Lifeguard Ismailovsk Regiment was bombarded by 30 French guns and was virtually wiped out. They lost 400 out of 520 men! (Mikhailovsky-Danilevsky, "Campaigns of 1806-1807").

- **[8-9, Dr]** In 1812 at Borodino, the Russian infantry advanced in "dense masses" and were hit by French cannonballs. The missiles made
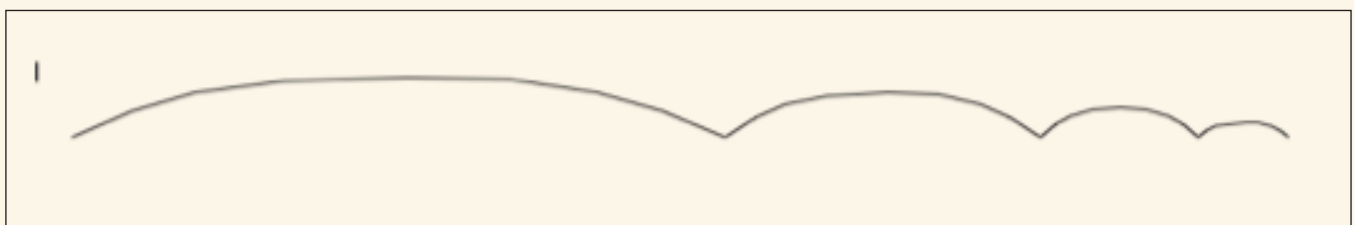
wide and long holes in the dense formations. The columns halted for a moment before their officers and NCOs put some order in the ranks. The French gunners redoubled their fire.

- **[2-3, no effect]** At Borodino the French 30th Line took "numerous hits from artillery as it advanced against the Raievski Redoubt." Despite the destruction of several files the French continued their advance.
- **[2-3, S]** At Borodino a French horse chasseur regiment stood under Russian artillery fire for 8 hours and lost only 97 out of 280 men.
- **[1, 1R]** In 1812 at Smolensk, 12 Russian guns inflicted 120 casualties on four squares of French infantry. It took only 3 minutes for the gunners to inflict this kind of carnage.
- **[1, Dr]** In August 1813 at Katzbach, several cannonballs hit the advancing Prussian battalion of landwehr under Major von Hiller. It threw the battalion into disorder and the mob moved back and tried to push through other battalions. They were halted only when Hiller directed several guns at them. "I would have fired on them if the rout continued." Order was restored, they formed a square and even repulsed a cavalry attack. They held their ground even when another cannonball struck them and killed 14 men at once!
- **[<1, no effect]** At Sacile, an Austrian gun carried off a file of 3 men in each of three successive shots, but in its subsequent fire hit nothing.
- **[2-3, 1R]** In 1813 at Leipzig a Prussian bn lost approx. 200 men within 1 hour of artillery fire.
- **13.34 A:** "A Slope hex intervening between a bombarding artillery unit and its target blocks the Line of Sight unless the artillery unit is on the hilltop and is either:
- firing downslope through the Slope hexside, or
- firing on another slope hex with no blocking hexes intervening.

"Hard shot was generally employed against fortifications and formed bodies of troops ... [either] as direct fire; [or], as ricochet fire (usually the more effective of the two, except after heavy rain or snow). The advantages of ricochet fire were the following: it considerably extended the range of effective fire; and every time the shot hit the ground (each bounce incidentally traveled

exactly half the distance of its predecessor), it sent up fragments of rock, stone or earth which inflicted a higher proportion of casualties."[2]

Even with the best field of fire, and a clear LOS, it took time to find the range. Then too, the gun had to be re-laid after each shot back to a precise location. The guns had a set-screw that could make coarse adjustments: a move of 1/8" at the back of the barrel is equivalent to 50 yards of swing, 1,000 yards downrange. A battalion column could be narrower than that.

"That battery over there is trying to hit us; we better get ready to move."

In 1812 at Polotzk 3 French guns "fired upon a Russian battalion for several hours. The Russians suffered only 3 casualties because they conducted a series of small movements to the left and to the right." The gunners couldn't keep up.

Artillerists went to school at Auxonne (Napoleon was trained there). They were the rocket scientists of their time. There was geometry involved in skipping the cannon balls off the turf. A slight elevation of the gun barrel (about 1°) works best on flat ground, depending upon charge and numerous other factors.

Ricochet fire was more effective than direct fire for all except the heaviest guns. To use ricochet fire you clearly need a level or slightly tilted plane between the unit and its target. If there are a lot of folds in the ground then ricochet fire isn't going to work and you have to fire direct. This reduces your range (down to one hex, let's say).

In the terrain example (above), according to 13.34 A an artillery unit "X" cannot bombard hex 4522, because of the Slope in 4521. That is because of the rugged folding of Sloping terrain. Slope Terrain on OSG's maps don't really hint at this and are a lot more tidy than the reality.

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2 David Chandler, Campaigns, p. 362. (See Diagram 1, p.26)

As a designer, part of my job is to explain why, in the course of design, certain choices are made. I often find out hidden assumptions and unexplored questions.

ACCURACY IS NOT ENOUGH

Kevin Zucker

AS A FOUNDATION-STONE FOR BUILDING A GOOD REPLICA OF A BATTLE, HAVING very accurate maps and Orders of Battle are indispensable. However, depending upon what kind of battle and what kind of game experience we want to create, we can design several kinds of structure on top of that foundation.

As the game project gets underway, for many months we are working just on creating the maps and counters. We want all of the details to be correct, and we want a true representation of the overall fighting ability of the two sides.

Since the TLNB series has a well-polished rules folder, you might assume that after the counters and the maps are created, you are ready to move on to play testing and polishing. The fact is, you haven't designed the game yet at all. Correct numbers on the counters are just the start.

"Design" is the process by which you turn game components into a game. As the designer, you should know everything about the battle, the generals, and the armies. You should understand the strategic and tactical styles of the different generals. As designer, the actions of the opposing generals should be your guide.

Just like in music, every good composer re-invents the wheel, so each general re-invents his own path to victory. That path should be available to the player. That doesn't mean he necessarily has to follow the historical strategy used, but often we discover that the accidents of terrain and maneuver tend to limit the player's options to basic variations of the actual campaign, and not some wholly new departure. Usually, when players discover a completely new and different strategy, it is often an ahistorical one revealing a flaw in the design.

Because of accidents of history, each battle has its own "personality." As soon as you have a set of counters and a map, you can begin to explore the personality of the battle. Each design decision you make from this point on will hopefully bring out the critical details that make that battle unique. A meeting engagement should have a different feel from a delaying action, for example. But two different delaying actions, with different forces, generals, and terrain, will give a different experience.

Each battle has its own "plot twists" or key ingredients. Quite often intelligence on the forces available—even on one's own side—is subject to the Fog of War. (This was the case at Lützen, not at Bautzen three weeks later.)

NOTE 1. In addition to the Austrian Infantry
strength shown here, approximately
3,000 cavalry and 1,000 artillerymen
with 130 guns were also distributed
in this cordon defense.

2. Troops assembled at Bosco were the
remnants of 12 battalions which had
suffered extremely heavy casualties.

BEAULIEU
(24,000)

Design Choices

A critical design choice for TLNB is the placement of VP locations. This choice should reflect real-world conditions—advantages such as a height, a view, or a cross-roads—usually, but not always, a town hex.

Framing the Battlefield

The map's alignment is a critical design decision. Exactly how the map edge frames the terrain of the opening move and game to come can make a big difference in the outcome. Placement of the map edges plays into the related factor of the starting and ending times. Usually the Approach to battle begins with one side entering the map.

For example, we just designed the map layout for *Bonaparte Overruns Piedmont.* One needs a good grasp of the entire campaign before selecting the ground. This part of the 1796 campaign was a linear campaign that flowed into and through the Tanaro river valley (above). Though the march of the French runs near the map edge, the shoulder of the Ligurian Alps is nearby. (It is good to have a mountain or a body of water near the map edge, to avoid an arbitrary "edge of the world.")

We decided to start the game after the initial Austrian offensive to Savona, a red herring that succeeded in wrong-footing the Austrians for Bonaparte's coming advance. Leaving out that initial period reduced the map and the campaign duration to manageable proportions. Besides, no Austrian player would duplicate the Austrian offensive that scattered their forces at a critical moment.

"Personality" Traits

• Who won the battle
• Who had superiority of forces, of cavalry, guns
• Who started the battle
• Who held the initiative

Plot Twists

• Accidents of history, time, weather, and terrain
• Outside factors, impinging grand strategy
• Was either side in a "must win" situation?
• Special stratagems or ploys, tactics
• Special skills of the opposing generals

San Giulia

Bormida di Spigno

Squanto

Vukassovich

2. Dego *(14-15 Apr.)*

Dego

Giusvalla

Caretto

Laharpe

Salicetto

Montenotte Inf

Massena

ida Millesimo

ereau

Cairo

Montezemolo

Cosseria

Millesimo

1. Montenotte *(12 Apr.)*

Mt. *Negino*

Rules of Thumb

- An historical outcome should be possible.
- Either side should have at least a one-third chance of winning.

 The best game is a nail-biter, going down to the wire.

Scenario Design has three focal-points:

1. The first turn
2. The middle-game
3. Victory conditions and goals.

The First Turn

The first turn set-up is the most critical factor, and everything else flows from that starting place. Choosing the exact moment for the start of the scenario is the art. If you choose the wrong moment, the game can go off in un-historical directions. Assuming that we want our scenario to show the history, we will want to put the players into the situation just at the moment, usually, when the enemy has been discovered. Prior to that moment, the approach may have been ex-

pected, but both sides were in a fog as to exactly where the enemy was going. Now, the curtain has been drawn back, and it is the moment to drop the pieces onto the map.
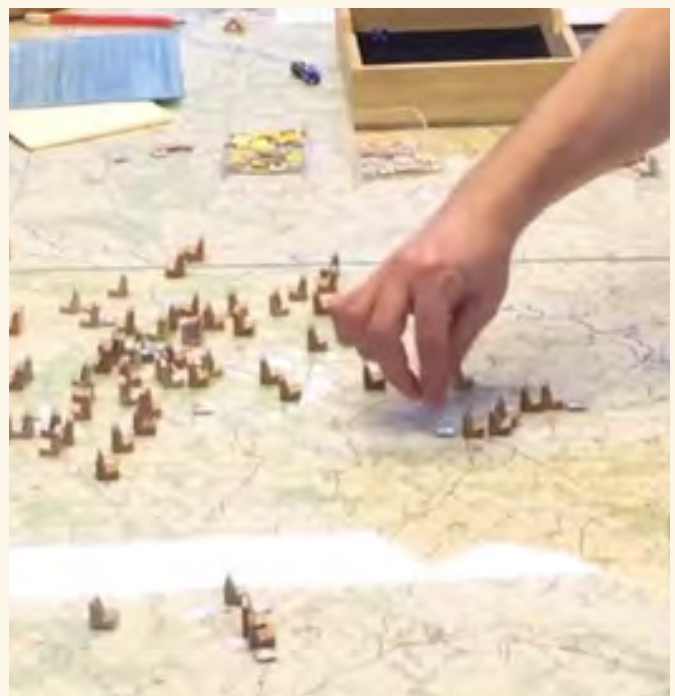
You might think that it is enough to find a situation map showing this moment, but that map doesn't say who has the initiative and who should

move first. Sometimes we need to adjust one side's position to place the forces into the right phase of the Igo-Ugo of events. Most historians narrate things with a natural stop and start in both armies, so we want these pauses to occur correctly. This will determine how you set the forces. Which side should be the one that blunders into the other? Which one was in motion at the time the two forces discovered each other?

To create a successful scenario, there should ideally be action right away. Not more than one turn where only one side is moving.

The Mid-Game

A game where the advantage changes back and forth many times *(like a caduceus)* is a kind of ideal to shoot for that tends to make for a nail-biter. The Special Rules are a good place to bring in the personality of the scenario. The Special Rules in TLNB always include:

- Damaged Bridges at Start
- March Orders at Start
- Map Area in Play

Additional factors may add command restrictions, combat modifiers, unit restrictions, reinforcement entry rules, set-up rules, exited units, demoralization, guard commitment, supply sources, additional VP costs, Improved Positions at start, etc.

Victory Conditions

If one side is outnumbered, can VP locations give them a chance? Can they delay the enemy and prevent their reaching them? Are the VP locations in balance? Does one side have an advantage?

Rule of thumb: 15 VPs on a ½ map, 30-35 VPs on a whole map. Do the VP locations represent realistic goals and do they sway the action in the historic direction? *(see WDM Nr. 10, p. 6 for more).*

The Last Turn

Shortening the game may help the side on the overall defensive. Keep suspense 'til the last.

Scenario Design in Napoleon's Quagmire

The Spanish Armies were trounced repeatedly by the armies of Napoleon, and they are hands-down the worst army we've seen in the system so far. Are they TOO awful? They have the worst unit initiatives in the system, very weak combat strengths, terrible officer initiatives and minimal command. It's hard to imagine any nation having worse ratings than these. This is as low as the system can go in almost every category. The Spanish have the further disadvantage, because their formations are so small, that they demoralize quickly. It might take a French Corps all day to demoralize, while a Spanish division might easily demoralize after just a couple of turns of combat. Combined with the small size of the divisions and weak brigades, the game seems to show that the lack of any Corps structure was a major handicap.

These things hamstring the Spanish player, yet they are based on the historical facts on the ground. I assume that the Spanish troops and their leaders could not perform in larger packets. If there was a way to combine those brigades into larger formations, I presume they would have done it.

So it's not just the initiative ratings that make life so difficult for the Spanish player; the Spanish Army by nature is inferior in all these ways. But, I have to ask, how could they have won? Did I overlook something?

Later in the war, the Spanish eventually learned not to engage the French at all, but only to snipe, attack stragglers and reinforcement columns, and leave the main line battles to the British and Portuguese. However, they did win some battles in 1808, and several more in 1809. They had a string of victories in May-June, and also prevailed at Tamames, where they had a 2:1 advantage in numbers. Ney's Corps was commanded by a substitute officer, Marchand. They also fought a defensive battle. Fighting defensively is a key for the Spanish.

SCENARIO *Design*

Kevin Zucker

A LARGE AND VOCAL MINORITY THINK OUR GAMES SHOULD RUN AC-cording to history, and are willing to put up with special rules that force the game into a histor-ical pattern. To me, however, every special rule is a failure of the game design. I am against pushing the course of the scenario into a historical rut with spe-cial rules. The historical result should be possible, but not necessarily likely.

We do, after all, have plenty of restrictions on a player's ability to respond, mostly modeled by Initiative, where his forces won't always do what he would like. We also have hidden movement,

which provides, it is true, only a tactical ignorance of enemy dispositions, not a strategic one.

Many historians seem to think it is their job to prove why the outcome of the battle was in-evitable. But designers may need a more flexible approach. I don't want to tie the gamer's hands and force him to pursue a more historical course of action. Instead, I want to give the player the situation at the given start time and allow him to assess the situation and do his best to break out of the historical pattern of the battle. (Just like the ads on the old AH boxes, "Now YOU are in com-mand.") I regard every Special Rule as a failure of

the basic system; though every game has them, I try to keep them to about three or four per battle. Otherwise they become a burden.

The outcome of the battle was not preordained. The ultimate goal is a game in which both sides have a chance to win—and where the outcome remains in doubt until the last turn. That increases the excitement and interest level.

I am against "Hands-tied" rules, "Command stupidity," and other mechanics to force a historical outcome. If there is no real external factor impinging on the general that we can incorporate into a rule, then the player ought to be free to exercise his options and pursue any course he chooses (at least in a separate scenario if not in the main one). We have done a rule for Archduke Charles's epileptic seizures, where epilepsy is the "external factor," but that is verging on the kind of rule I am talking about.

The player should be free to execute the winning plan. He should not be forced to take the historical choices just because of Special Rules. If the game reveals that Napoleon should have led with his left, instead of his right, then that could be a valid historical lesson. The book historian only has to recount what did happen (the best ones also discuss what might have happened, and why it happened). As a game designer, I strive to describe the historical situation at a given moment, facing the commander with free choice. The choice of that moment is one of the biggest decisions faced by a designer.

Scenario design is like throwing darts. For me, if darts aren't hitting the wall, you are good! It doesn't have to be a bulls-eye. If the scenario design was a cake recipe, it could be chocolate cake or it could come out as a lemon tart. A scenario too finely-honed starts to become a straitjacket for the players. I want players to find widely different outcomes each time they play. That keeps it interesting.

RICHARD BERG

(1943-2019)

Richard H. Berg published 120 games.

He won the Industry Award for Best Game Design 11 times and the Charles Roberts Award for Lifetime Achievement.

Kevin Zucker

N APRIL OF 1975, *MONTY PYTHON AND THE HOLY GRAIL* WAS RELEASED; *SATURDAY Night Live* made its debut in October—the first episode hosted by George Carlin; "Queen" had a hit with *Bohemian Rhapsody*. I was working at SPI, and Berg was getting started as a designer. His wife was Jim Dunnigan's communications consultant (her advice: wear socks). It seemed to me from a distance that Berg was just tagging along with her, when he got snagged into SPI's voracious production vortex

> "Richard Berg was something of an inspiration for me. He took on obscure topics and made them fun (Manchu, War of the Ring). I met him a number of times and enjoyed his gregarious personality. I'll think well of Richard whether I am marching on Peking with the Ever Victorious Army or battling about the Gates of Mordor."
> — Joseph Miranda

and started designing. His first, *Terrible Swift Sword* (1976) was one of the first monster games (three maps); and one of the first to use check-off boxes for keeping track of land unit strengths. His most popular game was *War of the Ring*, also published by SPI (Charles S. Roberts Best Fantasy Board Game of 1977). RHB went on to publish with West End Games, BSO Games and GMT, the most prolific wargame company, while keeping tabs on the competition in the snarky "Berg's Review of Games (BROG)." In 2003, RHB initiated a new award, "The ALEXANDER Game Design Award," in honor of his son. He started a blog on Consimworld, a popular destination for gossip mongers.
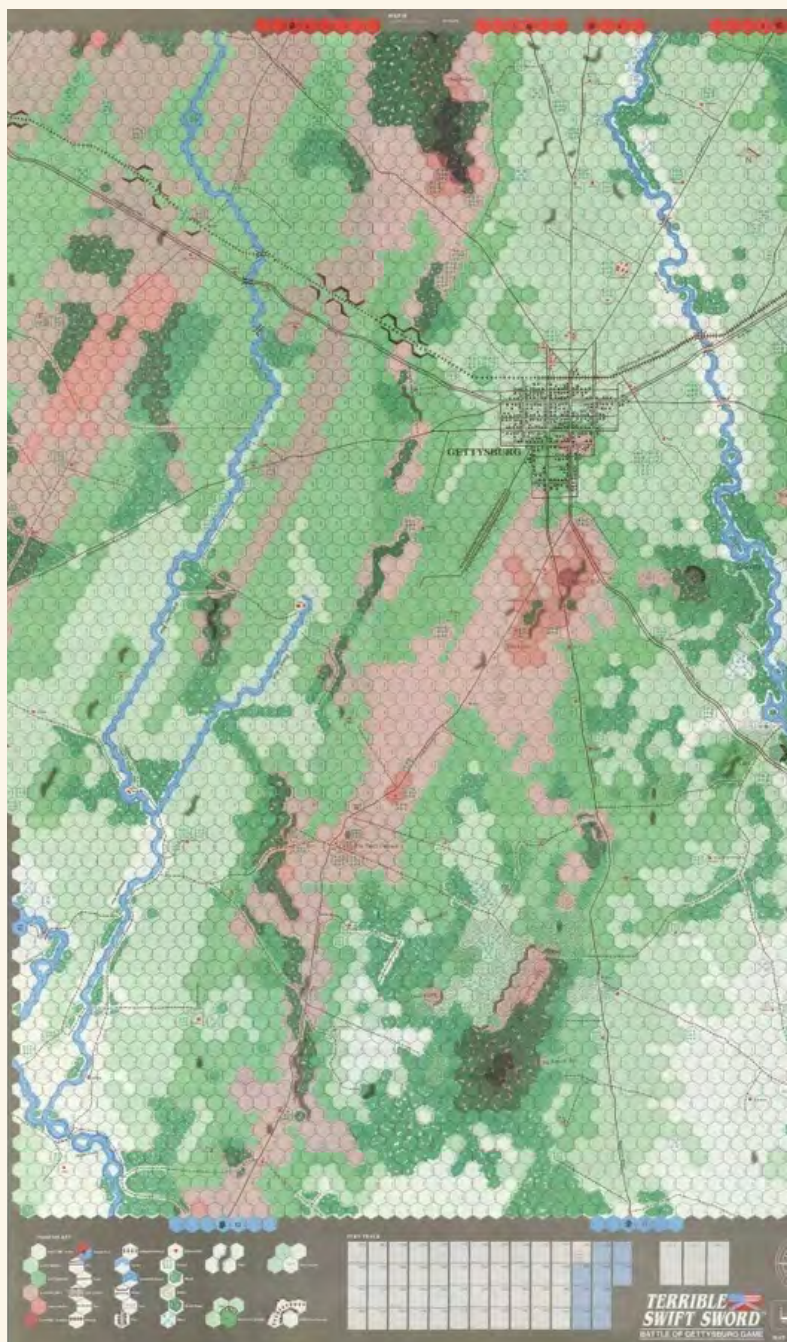
Comments on
Terrible Swift Sword

I made new counters, upgrading the unit strengths and added the morale values. Now I am enjoying it as much as I did when I first bought it back in 1976.

It looks great set-up, with divisions and corps moving in line. I still rarely get past the First Day's battle but as that is my favorite portion of the battle, that's fine. The Little Round Top scenario is fun also.

I've played this more than any other wargame. I have no idea if it is an accurate simulation, and I don't care! This game is amazing.

Gettysburg in monster-fashion using the late Richard Berg's "Great Battles of the American Civil War" system. One could dedicate the better part of several weeks playing this through to a conclusion.

Highly recommended to round up a few mates to make a go at this. As with many Gettysburg games, it is very difficult for the CSA player(s) to drive the USA player(s) back through the town (or force their withdrawal) to get the battle re-oriented on the historical north-south axis south of the town.

In our plays, the battle has typically been decided by late-afternoon of the second day on an east-west axis perpendicular to the ridge-lines, frequently with a CSA withdrawal to fight another day (as Longstreet advocated).

If one has the time to dedicate, it doesn't get much better than this.

In fact, it is arguably unplayable — not that it is "broken" or a horrible system; but due to its size (takes a lot of time just to sort), version (it spawn an grand system that has been improved over the year), length (this is not an afternoon or weekend warrior game) and date (there are so many "better" and more accessible game available now).

We appreciate the effort, but there were some awfully strange goings on. Those super Green Mountain men still stick in my mind. Seminal design that time has passed by.

Three Days of Gettysburg (by GMT games and also a Richard Berg design) is a better updated version, with the now-ubiquitous Richard Berg chit-pull system and some other incremental improvements. TSS has the usual histo-wargame problems of being too big, complex and time consuming for typical Euro-gamers. Best to play this one with teams of two or three.

This takes longer than the real event.

2nd edition is my "desert island' game. Yes it is a monster. Yes can be stacking is high. But get a group of guys together for a weekend and you will have a gaming experience that stays with you a lifetime. Ask me how I know this.

Sure, this one has a problem or two. One, the pink hills. They take some getting used to. I have; in fact, they help pinpoint the Confederate objectives. Two, the complete battle takes a long time to complete. Buddies and I took forty-seven weeks to do one, ending it the middle of the third day when Confederate battle losses convinced them to tip the king.

The pleasure comes from sending Harry Heth down the Chambersburg Pike towards town to "get those shoes" (Early: "Already got 'em"). It's a magic moment, like launching the landing craft towards the D-Day beaches.

It's regiments and batteries. A turn takes a while to complete, and play benefits greatly with team play. Sure, you don't have the Confederate corps commanders' (mainly Ewell's) lack of resolution and coordination, but the game plays closely regardless. Like Hancock says, "It's good ground."

[Editor:] I've done several battlefield tours and someone always remarks on feeling as though time has stood still here. A moment in and out of time. Something much bigger than Napoleon calls your attention, where you are a blip and even the battlefield's ghosts are just a bigger blip - one or two days of sound and fury in an eternally placid world. I recommend this kind of journey. What makes Chris's crossing unique is he and his family slogged over the mountains to Burgos on foot, right...

IN THE FOOTSTEPS OF

NAPOLEON

Ten Lessons Learned Walking the Camino de Santiago pilgrimage trail

Christopher Moeller

I SPENT TWO WEEKS IN SPAIN THIS SPRING, walking the medieval pilgrim's trail which originates in the French town of St. Jean Pied de Port and ends in the Galician city of Santiago de Compostela. We walked 145 miles, ending our trip one day's hike from the fortress of Burgos (a key northern city, where Wellington was repulsed in 1812). In 1808, when Napoleon himself took charge of the advance in the North France's armies crossed the Pyrenees along the routes we walked (the white arrow on the map below). Of course, while I was walking, I had nothing to do but anticipate my next rest stop, take in the gorgeous landscape, and, of course, imagine what it would have been like back in 1808.

Lesson One: Wool

OUR HIKE WAS IN MARCH, SO THE WEATHER was probably much nicer than when the grognards crossed the frontier. We had cool mornings and warm afternoons. Not hot though. Lesson one for a marching soldier... wear layers. We had mostly wool: socks, underwear, t-shirt, long sleeved shirt, sweatshirt. Merino wool isn't cheap but it's great for keeping you warm even when you're wet and sweaty. And you can take it off in the afternoon.

Lesson two: Small Pipe
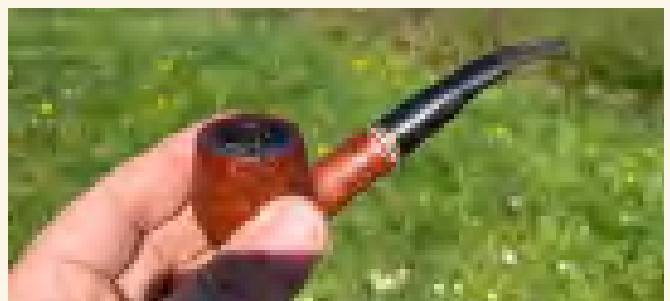
IT REQUIRES LESS TOBACCO THAN THE BIG ones, and you don't usually have time to burn it all during short rest stops. I was so happy to have this guy along, especially when the weather was nice and the view picturesque.

Lesson Three: Make War Pay for Itself

LOTS OF MUTTON IN NAVARRE (THE FIRST PROVince you enter as you cross the Pyrenees. We didn't loot any farms, but if we'd wanted to we could have fed a division or two easily.

Lesson Four: Don't Wear 18th Century Footwear

I HAVE BUNIONS WHICH I WAS REALLY WORRIED about. I bought some lightweight trekking shoes and cut out a hole around the bunion on each one. I didn't get blisters in two weeks hiking 15 miles or so a day. Amazing. Every day I put my shoes on, I imagined what it would have been like for a grognard, lacing up his heavy, crude, symmetrically crafted boots (if he was lucky enough to have boots). Those guys must have had feet like horse's hooves.

Lesson Five: Chateaux hexes

THERE ARE A LOT OF THEM. EVERY SINGLE ONE is on high ground, and they're all made out of stone. Monasteries and towns. Very good Lines of Sight to the surrounding fields.

And Lesson Six: Fortified Cities

PAMPLONA. PRETTY INTIMIDATING. I BELIEVE one of the French generals tricked his way inside during the opening festivities of the peninsular campaign. Good idea.

Lesson Seven: Wine

WHEN WE ENTERED THE PROVINCE OF RIUJO, we started seeing vineyards. They didn't have leaves yet (in fact the Spanish apparently trim them back

right to the ground over the winter), so they wouldn't be much of a LOS barrier in the spring. But the wine is delicious and plentiful. In fact, we stopped at a wine fountain along the way. The grognards would have appreciated that...

Lesson Eight: Olive Orchards

LOOKING JUST LIKE CHARLIE KIBLER'S VERsions in the Library maps. Nice work, Charlie!

Lesson Nine: Weather

WHEN WE ENTERED CASTILLE DE LEON, THE rain that had threatened us repeatedly, but never landed, finally arrived in the form of snow. Boy, did it change things. All the woolen layers came out, the rain gear went on, the buff got pulled up over my face and I was glad I had decent gloves. My wife, Pauline, found gloves insufficient, so pulled socks over her hands and covered those with stuff sacks. She would have had a hard time loading, ramming and firing.

First sighting of orchards coming down from the mountains. 15 miles west of Pamplona today. Weather still gorgeous.

Feel like a grognard. I'm following the Camino Frances pilgrim route from St Jean de la Port over the Pyrenees to Burgos. Two weeks by foot with 28 lb packs (including 7 lbs of water… 3 liters). No musket thankfully. I have Oman's first volume as an audiobook on my phone… lighter than a real book!
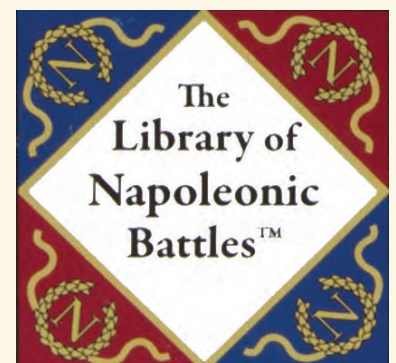
Lesson Ten: Morale

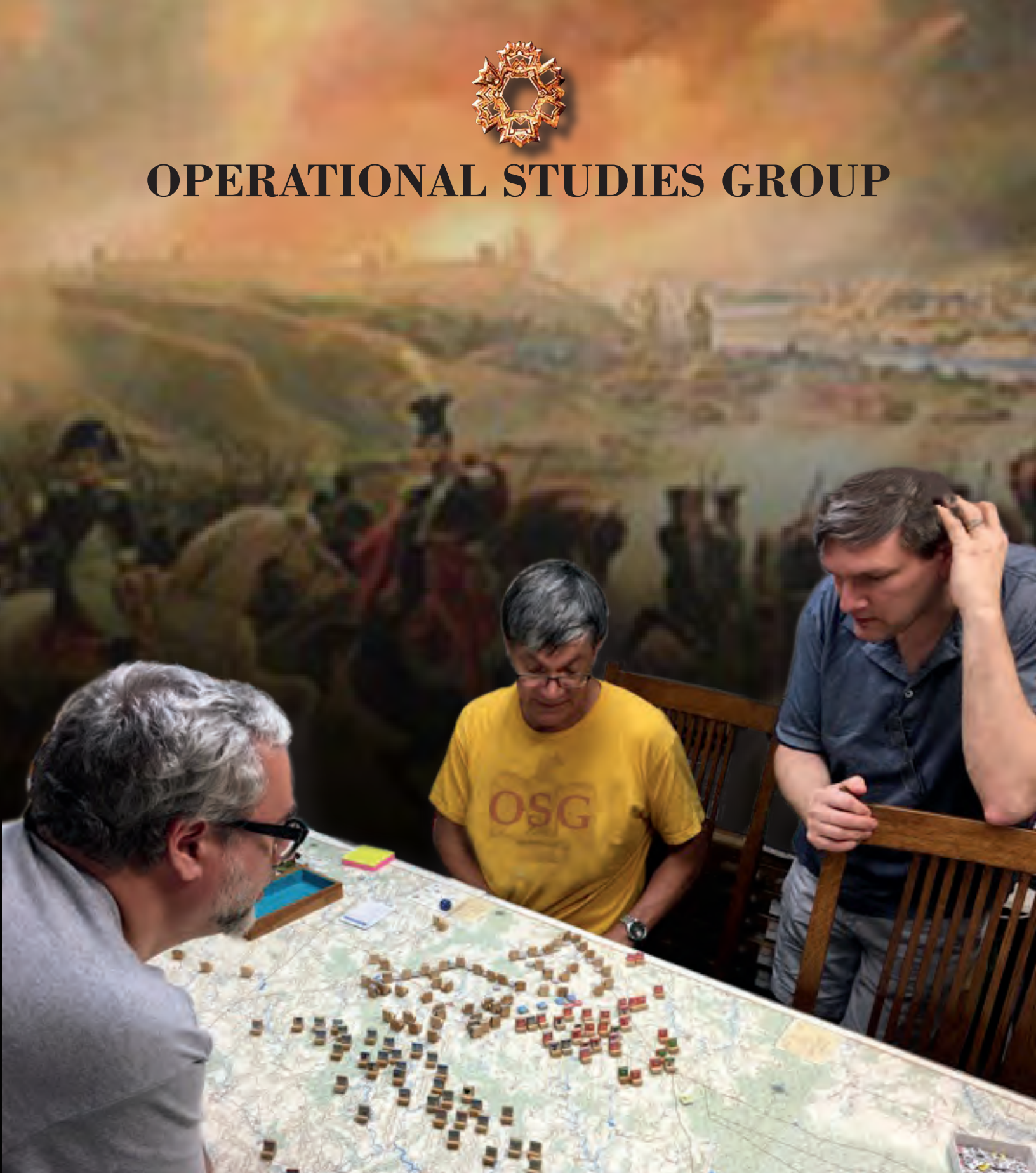THE INFLUENCE OF MORALE cannot be overstated. A happy grognard is an effective grognard.

I did get to visit the fortress at Burgos… that was very cool. Spent two days there, having beer and exploring.

The Library of Napoleonic Battles™

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