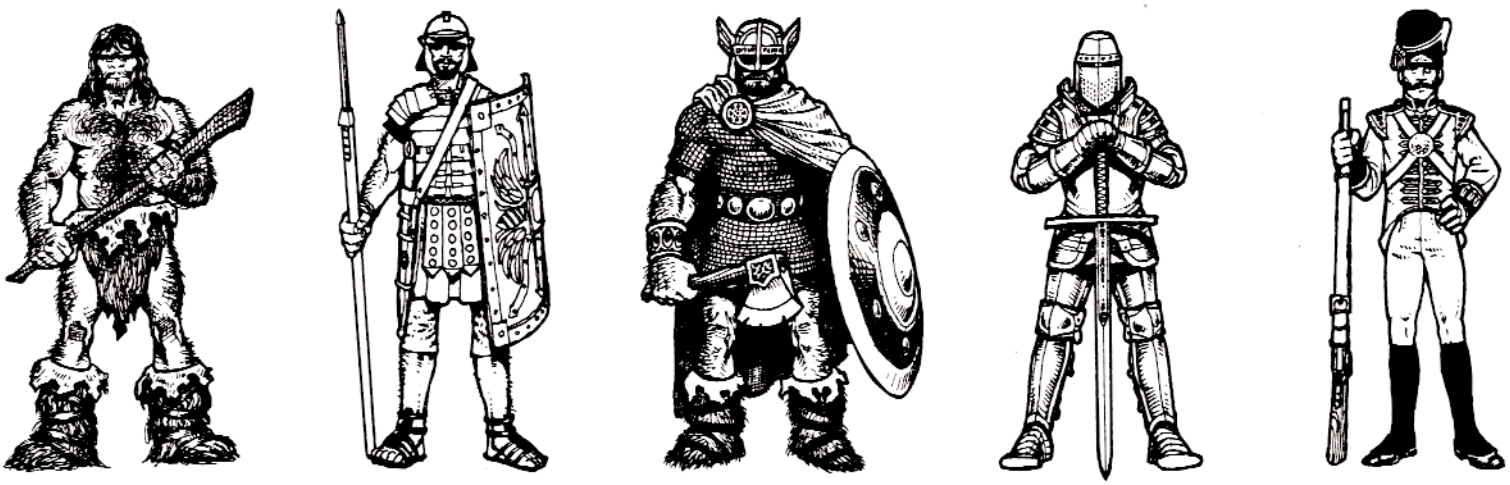
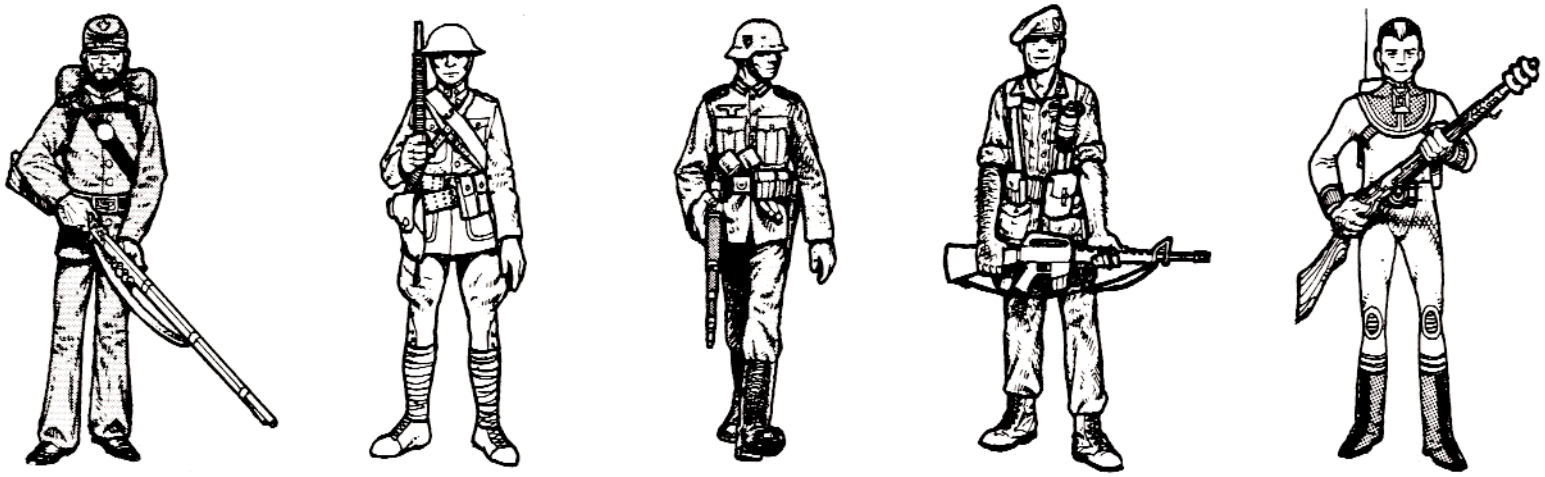


# GAME DESIGN

## Volume 1: Theory and Practice

by Nick Schuessler and Steve Jackson



STEVE JACKSON GAMES

# GAME DESIGN

## Volume 1: Theory and Practice

*By Nick Schuessler and Steve Jackson*
*Cover illustrations by Denis Loubet*
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# Introduction

This book represents an attempt to discuss the whys and wherefores of game design from two separate angles: the practical and the theoretical. Of the few texts on the subject, most tend to emphasize one approach and ignore the other – but a synthesis is what is needed.

Nick Schuessler, my co-author, is a veteran wargamer. His special interest is WWII, but he's been known to go back to WWI, and forward to modern NATO simulations. I think he must have played every WWII game the stores sell, but his preference is the "monstergame." Nick delights in detailed rule rewrites for his favorite games, and has his own magazine for fellow WWII fans. He taught a Texas Union course (which I attended) in game design back in 1976. His approach tends to be highly theoretical, mathematical, and simulation-oriented.

My own experience is different. I've enjoyed gaming for years, but it was just another hobby until, almost by accident, it became a livelihood. My big question has always been "Will people like this enough to *buy* it?" Nick's course was my one "formal" attempt to study game design; the rest of my experience has been learn-by-doing. I try to emulate the things I like when I play a game, avoid the ones that irritate me, and playtest any new ideas until I drop. It seems to work. My first design was *Ogre*. Since then, I've done *G.E.V.*, *The Fantasy Trip*, *Raid on Iran*, and several others. When I game, I'll play anything, but I prefer role-playing adventures and small games.

Although our approaches are totally different, Nick and I have found that we usually agree on what makes a good game. So a collaboration seemed logical. We argue a lot – usually with me shouting *"Playability!"* at him, and him shouting *"Realism!"* back – but that just keeps us both in line. The sales figures tell me that my design techniques work . . . but I feel better knowing that Nick's books-and-numbers approaches give the same answers. (It was amazing how often I'd pick up something he'd written and say "Gee . . . is *that* why I've been doing that?") And I think I've gotten Nick's confidence up to the point where he'll try doing a 'commercial' design to validate his theories. I hope so; I think he has some good games in him.

A few notes on the contents:

Chapters 1-12 are taken from a series of columns that ran in *The Space Gamer* in 1980-81; however, they have been heavily edited and updated, with quite a bit of new material added. Chapters 13 and 14 are entirely new. As to original authorship: Chapters 1-8 and 13 were written by Nick; the italicized sections and paragraphs were my replies and comments about the points he made. Chapters 9 through 12 were mine; Chapter 14 was a collaboration.

Along with the text, you'll notice a few 'outside' ads. We included these for a very good reason: the ad income let us shave a dollar off the sales price *and* add a few extra pages of text. These companies sponsored part of what you're about to read; think kindly of them!

And, as you see, this is 'Volume 1.' Volume 2 will be along in 1982, and will include component-design aids, details on applied probability, hints on the best markets for your games, and maybe more.

That's enough talk out of me. I hope you enjoy this book, and that you learn something useful. If you have any comments, please write me (the address is on the back cover). I'll be interested in what you have to say. I'm still learning, too.

*–Steve Jackson*
*May 30, 1981*

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## Chapter 1

# Theoretical Foundations

Theorizing about a subject is usually much less interesting than participation. In real-life war and peace, the philosopher can be a positive menace. Certainly the Twentieth Century offers examples of military theoreticians who have been discredited almost with the first shot. The French nearly lost World War I because of their Plan XVII, based on the "theory" of *elan*. The U.S. debacle in Vietnam can be explained by a succession of wrong-headed theories – containment, measured escalation, Vietnamization, etc. – each intended to correct the stupidities of the last.

For more mundane matters, like wargaming, we can usually say that playing the game is the ultimate critical analysis, with the board and the pieces making the "statement."

So our first question should be: Why bother with wargame theory at all? Well . . . trying to design anything without a clear idea of the final product is frustrating and, ultimately, futile.

*(Well, not always. It IS possible to come up with a good game on "instinct." Take my word for it. But your odds are better if you have some rules to go by, and a good gamer always plays the odds.)*

Second, the number of "bad" games now on the market demonstrates that wargaming theory is not all that self-evident. Most of those bad games were produced by designers who didn't really understand wargaming in general (never mind their experience), or, worse, didn't understand the specific games they were designing.

In the end, theoretical analysis is the process of pushing forward in some areas and setting limits in others. When potential limits are unrealized, you have a mediocre wargame. When the limits are ignored, you have a *bad* game.

### What is Wargaming?

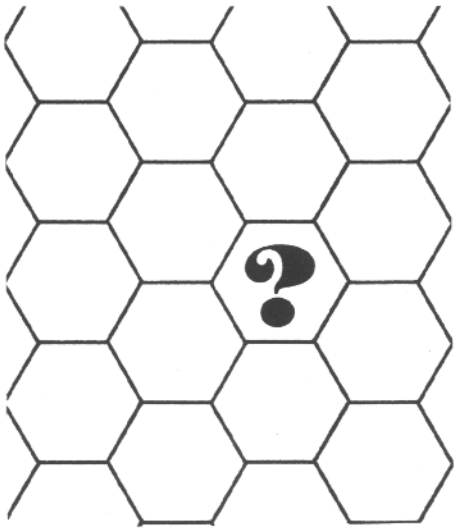
The starting point in theoretical analysis is definition of terms. For wargaming, this exercise is complicated and tedious. Since the word "wargaming" itself is somewhat disputed, we must first decide what term we are defining. Some prefer "conflict simulation" or "operations analysis."

These terms have a certain merit, but "wargaming" has its roots in the nineteenth century *kriegspiel*; it is still the most widely used and most readily recognized term. It is also the most commercial of the three; "simulations" and "analysis" conjure up visions of Pentagon computers and think tanks.

The best approach to a workable definition is to identify attributes. If it has certain things, it's a wargame. These attributes will also be of practical value to the designer, since they are the basis of all wargames.

For the time being, let us define wargaming as *the representation of force over space and time.* If we can identify the components – force, space, and time – then we have a wargame. Otherwise, it's back to Milton Bradley. First we must describe the concepts of space, force, and time. Later we will combine these ideas to develop other game terms (e.g., space + time = movement).

FORCE implies conflict, since the application of force will normally be resisted. We will further restrict our definition of force to physical violence or the threat of physical violence. Business, legal, or sociological conflicts do not qualify as "force" except in the most peripheral fashion. Street riots are fine, but a game about "who gets control of the city council to direct the new federal grant" isn't a wargame. We might note here that, while at least two sides are needed for "conflict," it is not necessary that both sides be represented by players. A solitaire wargame, with one side manipulated by a player while the other moves according to a predetermined pattern, is no less a wargame.




*(Almost a truism: if you don't have armed conflict, it's not a wargame. But note that a set of rules about city council politics could turn a simplistic street-riot game into a challenging political simulation – which would be a better wargame. The inclusion of some "forceless" conflict can improve a game.)*

TIME and SPACE work together to fix the environmental limits. The details of time and space are unimportant. Time may be measured in centuries or milli-seconds; space may be represented in light-years or meters. Only two restrictions apply. First, there must be limits of some sort. Time and space must be defined, at least roughly. The greater the accuracy of definition, the closer the simulation. Second, space and time must be correlated. One-year game turns on a map where each hex represents 50 meters would be a practical joke, not a wargame.

*(Only on a human scale. You couldn't simulate WWII on a one-year-50-meters format. That doesn't mean you couldn't design a playable game, with a good s-f rationale, that way . . . if only to prove it could be done. A challenge is a fertile source of game ideas. A gamer says "Think you could design a game that did this weird thing?" Or, better yet, "Nobody can design a game that does this weird thing!" There's your game idea right there. Take it out and develop it.)*

Space is also the single factor that separates wargames from other simulations. In wars and wargaming alike, space is vitally important. How much space you hold – and where – results in life-or-death advantages and disadvantages. This concept of space is what ties wargaming to boardgaming, and why war (large-scale conflict) works so well in a boardgame format.

For example, we could develop a cops-and-robbers game to meet our criteria of force and time – but the concept of space would be lacking. The robbers don't "hold" the grocery store. They gain no advantage by "seizing" the bank. The bank is a means, not an end. By the same token, the cops don't really "recapture" or "counter-attack" the bank (it even looks funny in print). They have no interest in the bank as "space;" they merely want to capture the robbers and, indidentally, protect life and property.