

C & S

SOURCEBOOK



**Chivalry
and
Sorcery**

Edward E. Simbalist
with

• TREVOR CLARKE •
• WES IVES • GERALD SCHILLER •



the chivalry & sorcery
sourcebook
a supplement

EDWARD E. SIMBALIST
with:
Trevor Clarke
Wes Ives
Gerald Schiller



P.O. BOX 182
ROSLYN, N.Y. 11576

EDITORIAL INTRODUCTION

The release of the revised C&S SOURCEBOOK marks the close of the first chapter of major revisions to this popular game system. Every effort has been made to update the material presented herein and to make this a valuable companion volume for serious players of the C&S system.

Future work in the stages of development includes revisions to *Saurians* and *Arden*, to bring these titles into line with the newer version of C&S. Several adventure and campaign packs are also in the works and should provide players and gamemasters with good examples of how the C&S system is designed to work.

Perhaps the most major changes seen in this volume relate to the Battle Systems. Many might ask why change or tamper with a set of award winning rules. The reasons are simple. First, many role players are not fully conversant with the complexities of miniatures rules and every effort has been made to present this portion of the C&S system in a more easily understandable format. Secondly, the new version of these rules brings into focus several new concepts which had been first applied to miniatures rules by other titles published by FGU. It must be remembered that game systems are constantly in a state of evolution and that new ideas are adopted by game designers and applied to their original systems in a never ending effort to improve a game.

Gamemasters, like designers, should feel free to modify and adapt any rules system to suit the requirements and tastes of their own groups. No rule is inviolate or cast in bronze. Freedom to adapt ideas is fundamental to the best in gamemastering. C&S presents valid ideas and methods for dealing with virtually every aspect of fantasy role play, but some systems should always be modified to meet the needs of any individual gaming group.

We at FGU sincerely hope that we have provided the material necessary for every group to enjoy C&S and encourage 'tinkering' by experienced GMs as such modification only improves a game in relation to the goals of the individual gamemaster.

U.S. COPYRIGHT NOTICE

Copyright 1978, 1983 by Edward E. Simbalist
All rights to this book are reserved. No part of this book may be used or reproduced in any manner whatsoever without permission, except in the case of brief quotations embodied in critical articles or reviews.

Cover art is copyright 1983 by Robert N. Charrette.
Interior illustrations are copyright 1977, 1978, 1983 by Mike Gilbert as indicated.
Interior illustrations are copyright 1978 by Edward E. Simbalist as indicated.

For information contact: Fantasy Games Unlimited Inc., P.O. Box 182, Roslyn, New York 11576.

CONTENTS

DESIGNING OUTDOORS ADVENTURES	3
Mapping the World	3
Weather	3
Overland Movement	4
Encounters	7
WEATHER	17
DESIGNING C&S MONSTERS	18
MONSTERS ARE PEOPLE TOO	23
HERALDIC ARMS	25
Heraldry	25
The Herald as a Player Character	26
PHYSICIANS, WOUNDS, & DISEASES	27
FORESTERS	34
THE HUNT	36
FEUDAL ECONOMICS	37
FEUDAL TRADE & COMMERCE	42
THE CHIVALRY & SORCERY BATTLE SYSTEMS	47
1.01 Troop Stands	47
1.02 Fantasy Troop Stands	48
1.03 Troop Types: Cavalry	48
1.04 Troop Types: Infantry	49
1.05 Artillery	49
2.01 Units	50
2.02 Training Levels	50
2.03 Commanders	50
2.04 Colors	50
2.05 Heroes and Superheroes	51
2.06 Command Levels	51
3.01 Troop Purchase Values	51
4.01 C&S Military Campaigns	52
4.02 The War Chest	52
4.03 Initial Morale Levels	52
4.04 Replacements	52
4.05 Mercenaries	52
4.06 General Costs: Raising Troops	52
4.07 Upgrading Troops	53
4.08 Financing Military Campaigns	53
5.01 Feudal Mobilization & Logistics	53
5.02 Military Service	53
5.03 Mobilization	54
6.01 Sequence of Play (Tactical Rules)	55
6.02 Movement, Scale and Formations	55
6.03 Movement Rates	57
6.04 Terrain Effects	57
7.01 Morale	58
8.01 Missile Fire	59
8.02 Horse Archer Tactics	60
8.03 Musketry	61
8.04 Gunpowder Artillery	62
8.05 Counter-Battery Fire	62
9.01 Close Combat (Melee)	63
9.02 Ambush	65
9.03 Pikemen & Shortswordsmen	66
9.04 Cavalry Pursuit	66
9.05 Heavy Cavalry Breakthrough	66
9.06 Light & Medium Cavalry Tactics	66
9.07 Cavalry vs. Infantry	66
9.08 Camelry	66
9.09 Chariots	67
9.10 War Elephants	67
10.01 Fortresses and Sieges	68
10.02 Gates & Portcullises	69
10.03 Storming the Battlements	69
10.04 Drop the Rock	69
10.05 Missile Fire During Storming Actions	70
10.06 Siege Engines and Artillery	70
10.07 Mining Operations	71
10.08 Rams & Penthouses	71
10.09 Mantlets & Siege Works	72
10.10 Moats & Ditches	72
10.11 Siege Towers	72
10.12 Incendiaries & Explosives	72
11.01 Victory & Defeat	72

Designing Outdoors Adventures

by Edward E. Simbalist

In a C & S style of campaign, a good proportion of adventures will occur in the outdoors setting. The world is a wide place, indeed, and it offers too many opportunities for encounters and experience to be ignored. Moreover, since 'Fantasy' traditionally involves a quest, characters should be expected to travel about. That requires an environment drawn with no less care or detail than the 'dungeons' which have hitherto been the prime arenas of fantasy role playing.

MAPPING THE WORLD

The geography of the campaign region is of major importance to outdoors adventures, for it conditions all activities and encounters. Several possibilities arise.

If the campaign is based upon a work of fantasy, the campaign designer will attempt to represent as accurately as possible the actual lands of the fantasy world. This will require careful reading of the work selected as the foundation of the campaign. There are a number of popular fantasy worlds that have already been mapped, and these will prove easiest to develop into game campaigns. Tolkien's Middle Earth is perhaps the most completely portrayed, and several other mapped worlds that come to mind are those of Morcock's *Elric*, Norton's *Witch World*, Howard's *Conan*, and Leiber's *Fafhrd* and the Grey Mouser. Games like *Archworld* (FGU) also provide detailed maps suitable for adaptation to a campaign.

If the campaign is player conceived, the campaign designer enjoys complete freedom to develop the world as he wants it. Such worlds tend to be on a smaller scale than the above examples, often including only one or two kingdoms.

The campaign maps should be drawn in fairly broad scale, usually 1 inch = 5 to 20 miles. Important terrain features, roads, towns, castles, etc., can be marked on them. Hex sheets are most useful if they can be acquired.

Once the campaign map has been designed, attention can be paid to specific regions. I would suggest drawing such maps on 8½ x 11 paper, for this size is suitable for placing in a notebook and also can be xeroxed easily for duplicate copies. Regional maps should be drawn on a scale of 1 inch = 100 to 500 yards to permit inclusion of as much detail as is required for Game Master reference. Duplicates containing more general information (important secrets are omitted) could be prepared and issued to characters native to the region for the duration of a game session, after which they are returned to the Game Master. This permits players to have general knowledge of the region of their birth while still being 'in the dark' about the mysteries of the place. Only the player(s) possessing characters native to the region would be permitted to look at the duplicate; strangers would have to make do with general distance references, etc., as they try to prepare a rough map of their own. Returning the maps at the end of a session maintains security, for memory is unsure and others will not have the opportunity to see them.

Wilderland maps can be player designed or else topographical survey maps may be purchased at relatively minimal cost from the appropriate department of your government. Such survey maps should be of wilderness areas. They provide incredible detail and are most useful for this reason.

Regional maps do not all have to be prepared by the campaign designer. Players possessing nobles or mages who dominate a particular region could design the maps of their territories and would retain a copy because of their intimate knowledge of the area. Indeed, such players often act as local Game Masters when the action is carried into areas under their control, for they command the troops, etc., of the region.

WEATHER

Weather conditions will vary considerably, depending upon the region one is in, etc. The following tables are intended to serve as guides, only, and may be modified to suit local weather patterns:

GENERAL WEATHER CONDITIONS:

Check morning, afternoon, evening, and night.

D100	Spring/Fall Weather
01-05	Dense Fog & Cool
06-10	Mist & Cool
11-15	Heavy Rain & Cool
16-20	Light Rain & Cool
21-35	Drizzle & Cool
36-55	Overcast & Cool
56-65	Cloudy & Cool
66-75	Cloudy & Warm
76-85	Clear & Cool
86-00	Clear & Warm

Night:	-15
Morning:	-5
Afternoon:	+7
Evening:	-10

D100	Summer Weather
01-02	Dense Fog & Cool
03-05	Mist & Cool
06-10	Steady Rain & Cool
11-15	Steady Drizzle & Cool
16-20	Drizzle & Cool
21-30	Intermittent Showers
31-35	Thunderstorm
36-45	Cloudy & Cool
46-55	Cloudy & Warm
56-65	Clear & Cool
66-75	Clear & Warm
76-00	Clear & Hot

Night:	-5
Morning:	no modification
Afternoon:	+7
Evening:	-5

D100	Winter Weather
01-07	Blizzard/Heavy Snow
08-15	Steady Light Snow
16-20	Light Snow Showers
21-25	Fog/Ice Fog & Cool/Cold
26-50	Overcast & Cool/Cold
51-70	Cloudy & Cool/Cold
71-90	Clear & Cool/Cold
91-00	Sunny & Warm (thaw)

November:	+15
December:	no modification
January:	-10
February:	-5

These general weather conditions are those typical of the forested lands of Europe. In northern climates, conditions tend to be more severe; in Mediterranean climates, they are warmer and drier. If steppe-lands and plains are involved, conditions in spring, fall and summer tend to be fairly dry, with rains in late summer and early fall. It is impossible to include all of these conditions in one set of tables, so players are urged to design their own weather charts to reflect the weather conditions they desire.

WINDS

Wind direction is very important when conducting the Hunt, for breezes carry scents and sounds a considerable distance. Depending

upon the nature of weather conditions and the nature of winds in the region, as decided by the Game Master, winds can remain fairly constant (check once every 2 hours) or be capricious (check every hour). Roll 2 D6 for prevailing wind, then consult the Wind Shift Table for changes:

D6	Prevailing Wind 1 or Prevailing Wind 2	
2-3	South	North-West
4	South-East	West
5	East	South-West
6	North-East	South
7	North	South-East
8-9	North-West	East
10	West	North-East
11-12	South-West	North
D100	Wind Shift Variation	
01-15	Wind shifts 1 point clockwise	
16-30	Wind shifts 1 point anticlockwise	
31-40	Wind shifts 2 points clockwise	
41-50	Wind shifts 2 points anticlockwise	
51-65	Wind shifts on Wind Table	
66-00	Wind remains constant	

OVERLAND MOVEMENT

When **C & S** was designed, movement was conceived largely in terms of encounter situations rather than in terms of extended pursuits. With the development of hunting rules and the additional likelihood of extended pursuits of/by enemies overland, more comprehensive rules were required to account for movement.

All creatures are assigned a Fatigue Point (FP) level equal to their Body and Fatigue levels (or body levels, if fatigue levels are not stipulated). The FP total represents the stamina and reserve strength of a creature — the distance it can go at various speeds before it begins to lose Fatigue/Body points.

For each 2.5 minute cross-country/road turn, FPs are deducted from the FP total for movement. When all of the FPs are used up, 1 point/2.5 minute turn is lost from Fatigue/Body levels of the creature:

Run or Max. Speed:	FP loss/turn as indicated in the Endurance column.
¾ Speed:	60% FP loss (50% for wolves, Wolfhounds).
½ Speed:	30% FP loss (25% for dogs, wolves, steppe horses, Elves, Hobbits).
Walks:	10% FP loss (cats 5%).

There are also other impediments:

Partially encumbered (40% to 50% carrying capacity used to bear burden)	double FP loss
Running in chain hauberk (½ or ¾ speed; full is impossible)	double FP loss
Running in combination plate or full plate (½ speed only)	triple FP loss
Fully encumbered (50% + carrying capacity used to bear burden)	triple FP loss
Fully fatigued (all fatigue points lost)	lose body points

For example, let us take a man with body 16 and fatigue 9. FPM (Fatigue Points for Movement) = 16 + 9 = 25. Here are the possibilities:

Run at 857 yds/turn = 2 FP/turn = 25/2 or 12.5 turns for 6.2 miles.
¾ speed or 656 yds/turn = 1.2 FP/turn = 25/1.2 = 20.8 turns for 7.75 miles.
½ speed or 437 yds/turn = 0.6 FP/turn = 25/0.6 = 41.7 turns for 10.4 miles.
Walk or 225 yds/turn = .2 FP/turn = 25/.2 = 125 turns for 15.9 miles.

Running in chain hauberk at ½ speed, for example, would expend 2 x 0.6 FP or 1.2 FP, giving 20.8 turns for 5.2 miles. If the character was also fully encumbered, FP loss = 2 + 3 = 5 x 0.6 or 3 FP/turn, giving 8.3 turns for 2.1 miles.

Clearly, the system offers considerable scope with respect to running down enemies by grinding them literally into the ground.

Wounded men are regarded as being partially encumbered if under 25% body damage, and fully encumbered if over 25% damage. The same is true of animals, monsters, etc.

Cripples begin at slow walk (½ walk speed), with 10% FP loss; then 50% for walking speed and 100% for half-speed. Crawling is at ¼ walk speed at 50% FP loss if injured.

Flying creatures may cruise at ½ speed for 5% FP loss, slow cruise at 'walk' speed for 1% FP loss.

The FPM levels can be recovered at a rate of 25% per hour of rest. Constitutions of 14-18 add +5%, 10 + 10%, and 20 + 25% to FPM recovery. 10 minute rests/hour are advisable.

Once distances have closed to battle ranges, switch to the individual movement speeds given in **C & S**.

HUMAN FORM CREATURES	TERRAIN MOVEMENT (in yards/meters per 2.5 minutes; ÷ 73 = m.p.h.)											
	In Open		Undergrowth		Dense Cover		Swamp		Swimming			
	Walk	Run	Walk	Run	Walk	Run	Walk	Run	Av.	Max.	Endurance	
Man	225	875	125	450	75	300	75	150	75	175	2	FP/turn
Elf	225	1100	175	625	125	450	75	200	75	200	1	FP/turn
Hobbit	200	825	125	450	100	325	25	75	25	50	2	FP/turn
Dwarf	200	750	125	400	75	275	25	75	25	50	2	FP/turn
Kobold	200	725	125	375	75	275	25	75	—	—	3	FP/turn
Goblin	200	750	125	375	75	275	25	75	—	—	3	FP/turn
Orcs	200	775	125	375	75	275	25	75	—	—	3	FP/turn
Uruk Hai	225	850	125	425	75	275	75	150	—	—	3	FP/turn
Bugbear	225	925	125	500	75	300	75	150	—	—	3	FP/turn
Hobgoblin	225	950	125	500	75	325	75	175	—	—	3	FP/turn
Gnoll	225	900	125	500	75	300	75	175	—	—	3	FP/turn
Ogre	225	900	125	500	75	325	75	175	—	—	3	FP/turn
Mtn. Troll	225	900	125	475	75	300	75	150	—	—	3	FP/turn
Cave Troll	225	800	125	400	75	300	75	150	—	—	3	FP/turn
Wood Troll	225	1000	150	600	125	400	75	150	—	—	3	FP/turn
Water Troll	225	900	125	475	75	300	75	250	100	300	3	FP/turn
Giant	300	1700	250	700	100	400	50	150	—	—	3	FP/turn
RIDING/PACK/DRAFT ANIMALS												
Riding Palfrey	250	1900	125	650	75	300	75	150	75	125	4	FP/turn
Lt. Horse	250	2000	125	650	75	300	75	150	75	125	2	FP/turn
Med. Horse	250	1800	125	625	75	325	75	150	75	125	3	FP/turn
Hv. Horse	250	1650	125	625	75	325	75	150	75	125	4	FP/turn
Great Horse	250	3000	125	850	75	400	75	200	100	200	2	FP/turn
Mule	225	1600	125	600	75	275	75	150	75	125	3	FP/turn
Laden	225	1200	125	500	75	250	50	100	50	75	4	FP/turn
Wagon	225	1000	50	150	—	—	—	—	25	25	5	FP/turn

TERRAIN MOVEMENT (in yards/meters per 2.5 minutes; ÷ 73 = m.p.h.)

	In Open		Undergrowth		Dense	Cover		Swamp		Swimming		Endurance
	Walk	Run	Walk	Run		Walk	Run	Walk	Run	Av.	Max.	
Draft Horse	225	1600	125	600	75	275	75	150	75	125	3	FP/turn
Laden	225	1200	125	475	75	225	50	100	50	75	4	FP/turn
Wagon	225	1000	50	100	—	—	—	—	—	25	25	5 FP/turn
Donkey	225	1400	125	450	75	250	50	100	50	100	3	FP/turn
Laden	225	950	125	400	75	175	50	75	25	75	5	FP/turn
Oxen/Cattle	200	1400	100	500	50	250	50	100	50	100	4	FP/turn
Wagon	175	750	50	125	—	—	—	—	—	25	25	6 FP/turn

BEASTS OF PREY

Brown Bear	200	1600	125	700	75	400	75	150	75	150	6	FP/turn
Grizzly	200	1700	125	700	75	400	75	150	75	150	6	FP/turn
Polar Bear	200	1800	125	750	75	450	75	200	100	250	6	FP/turn
Leopard	225	2750	125	950	75	475	75	225	75	125	7	FP/turn
Panther	225	2800	125	975	75	475	75	250	75	125	7	FP/turn
Cheetah	225	5500*	125	1100	75	650	75	125	25	50	10	FP/turn
Lion	225	2500	125	750	75	450	75	200	50	100	8	FP/turn
Tiger	225	2700	150	850	75	500	75	200	75	125	7	FP/turn
Dire Wolf	225	2000	125	750	75	425	75	175	75	125	1	FP/turn
Grey Wolf	225	1850	125	700	75	400	75	175	75	125	1	FP/turn
Warg	225	1875	125	700	75	400	75	175	75	125	1	FP/turn
Wolverine	175	1500	100	675	75	375	75	175	75	125	7	FP/turn
Constrictor	15	350	10	75	10	50	25	100	50	125	10	FP/turn
Lge. Constr.	15	400	10	75	10	50	25	100	50	125	10	FP/turn
Crocodile	125	700	25	100	—	—	75	200	75	400	10	FP/turn
Weasel	200	875	175	800	150	700	25	50	25	25	1	FP/turn

* For 500 yards only, at full FPM loss; such runs exhaust Cheetahs.

BIRDS OF PREY TERRAIN MOVEMENT (in yards/meters per 2.5 minutes; ÷ 73 = m.p.h.)

	In Open		Undergrowth		Dense	Cover		Swamp		Swimming		Endurance
	Walk	Run	Walk	Run		Walk	Run	Walk	Run	Av.	Max.	
On Ground	50	100	25	50	25	25	10	25	—	—	—	5 turns at run
Gerfalcon	2500	6000	400	2500	250	1200	—	—	—	—	—	15 turns at max.
Saker Hawk	2500	6100	425	2600	250	1200	—	—	—	—	—	15 turns at max.
Merlin	2500	6200	450	2600	250	1200	—	—	—	—	—	15 turns at max.
Lanner	2700	6300	450	2700	250	1200	—	—	—	—	—	12 turns at max.
Perrigrine	3000	9000	550	3300	2500	1800	—	—	—	—	—	7 turns at max.
Sparrow Hawk	2900	6800	525	3000	2500	1900	—	—	—	—	—	5 turns at max.
Eagles (All)	2500	6000	400	2000	200	1000	—	—	—	—	—	25 turns at max.

OTHER BIRDS

Crouse	75	400	25	200	25	100	—	—	—	—	—	7 turns at run
Flying	2000	4700	450	2800	250	1250	—	—	—	—	—	10 turns at max.
Pheasants	75	375	25	175	25	100	—	—	—	—	—	5 turns at max.
Flying	2500	5500	475	2900	250	1350	—	—	—	—	—	10 turns at max.
Quail	200	750	50	200	50	200	—	—	—	—	—	10 turns at max.
Flying	2000	4300	450	2700	250	1150	—	—	—	—	—	7 turns at max.
Ducks	50	200	50	150	25	75	25	50	25	200	5	at run, 10 swim
Flying	2000	4500	425	2000	250	1000	—	—	—	—	—	25 turns at max.
Geese	50	300	50	150	25	75	25	50	25	200	7	at run, 10 swim
Flying	2000	4500	400	1800	250	900	—	—	—	—	—	25 turns at max.
Swans	50	200	50	150	25	75	25	50	25	200	5	turns, 10 swim
Flying	2000	4750	400	1800	250	900	—	—	—	—	—	25 turns at max.
Others	25	100	25	50	25	25	10	25	—	—	—	5 turns at max.
Flying	2000	4500	475	3000	250	1700	—	—	—	—	—	10 turns at max.

BATS (Fly)	1500	3000	450	2900	250	1500	—	—	—	—	—	10 turns at max.
------------	------	------	-----	------	-----	------	---	---	---	---	---	------------------

HUNTING & WAR DOGS

Talbot	225	1850	125	700	75	400	75	175	75	125	1	FP/turn
Staghound	225	1950	125	800	75	450	75	175	75	125	1	FP/turn
Wolfhound	225	2050	125	900	75	450	75	175	75	125	1	FP/turn
Southern Hd.	225	1850	125	700	75	400	75	175	75	125	1	FP/turn
Mastiff	225	1850	125	700	75	400	75	175	75	125	1	FP/turn
Armored	225	1750	125	650	75	375	75	150	75	125	1	FP/turn
Sheep Dog	225	1850	125	700	75	400	75	175	75	125	1	FP/turn
Mutts	225	1800	125	700	75	400	75	175	75	125	1	FP/turn

SMALL ANIMALS

Badger	150	650	125	500	100	300	—	—	—	—	—	3 FP/turn
Cat	175	1500	175	1200	150	900	25	75	25	25	3	FP/turn
Cat Familiar	175	2000	175	1400	150	1100	100	250	25	75	0.3	FP/turn
Crab	20	125	10	25	—	—	25	50	25	25	1	FP/turn

Fox	225	1850	200	1200	150	900	25	75	50	100	0.5 FP/turn
Frog/Toad	25	350	10	25	10	25	25	250	50	175	1 FP/turn
Toad/Familiar	25	450	10	50	10	50	25	350	50	275	0.3 FP/turn
Hare/Rabbit	50	1500	25	1100	25	850	—	—	25	25	1 FP/turn
Hedgehog	25	250	25	150	25	150	—	—	25	25	2 FP/turn
Lizard	25	550	25	400	25	250	25	275	50	125	3 FP/turn
Otter	200	1000	125	400	75	300	175	600	75	800	1 FP/turn
Sm. Rodents	25	450	25	375	25	300	10	50	10	25	1 FP/turn
Skunk	25	550	25	400	25	300	25	75	25	50	2 FP/turn
Tortoise	5	5	5	5	5	5	—	—	—	—	—N/—A
Turtle	5	10	5	5	5	5	5	25	25	150	—N/—A
Sm. Viper	15	350	5	50	5	25	25	75	25	75	1 FP/turn
Lge. Viper	15	400	5	50	5	25	25	75	25	100	1 FP/turn

LARGE ANIMALS

Boars	175	1500	150	750	75	300	25	75	25	75	2 FP/turn
Wild Pigs	175	1450	150	725	75	275	25	75	25	75	3 FP/turn
Hind	225	1900	150	750	75	400	25	75	50	125	2 FP/turn
Stag	225	2000	150	775	75	425	25	100	50	125	2 FP/turn
Great Stag	225	2500	150	825	75	475	25	100	50	125	1 FP/turn
White Stag	225	2750	150	900	75	525	25	125	50	125	1 FP/turn
Cattle/Oxen	1400	1400	100	500	50	250	50	100	50	100	4 FP/turn
Bulls	1500	1500	100	600	50	250	50	100	50	100	4 FP/turn
Hogs/Sheep	175	1400	150	725	75	275	25	75	25	75	3 FP/turn

GIANT ANIMALS

Giant Ants	200	1000	125	550	75	275	—	—	—	—	4 FP/turn
G. Centipede	350	1500	200	750	100	400	—	—	75	125	3 FP/turn
Giant Crab	75	600	50	250	—	—	75	150	50	50	10 FP/turn
Killer Frog	75	1000	50	500	25	300	75	275	75	250	7 FP/turn
G. Porcupine	75	500	50	225	50	200	—	—	50	75	5 FP/turn
Giant Ram	225	1500	150	750	100	300	50	75	50	100	2 FP/turn
Giant Rat	200	1200	175	950	150	500	75	150	50	150	2 FP/turn
G. Scorpion	150	650	75	300	50	200	—	—	—	—	4 FP/turn
Giant Skunk	150	800	125	600	100	275	50	100	50	100	5 FP/turn
Giant Snake	75	550	25	200	25	100	25	175	50	175	5 FP/turn
Giant Spider	250	1000	175	600	125	400	50	150	—	—	3 FP/turn
War Elephant	225	1300	125	1000	125	350	50	100	50	125	8 FP/turn
Giant Weasel	225	1500	125	950	125	650	75	150	75	125	6 FP/turn
G. Wolverine	200	1700	125	900	125	450	75	200	75	175	7 FP/turn

LEGENDARY MONSTERS & BEASTS

Basilisk	225	1400	150	600	75	200	50	125	75	125	4 FP/turn
Centaur Ldr.	225	2500	125	650	75	300	75	150	75	125	3 FP/turn
Centaru	225	2250	125	650	75	300	75	150	75	125	4 FP/turn
Centaur Yg.	225	1750	125	650	75	300	75	150	75	125	5 FP/turn
Chimera	225	2500	125	750	75	450	75	200	50	100	3 FP/turn
Flying	1500	5000	250	500	250	350	—	—	—	—	0.5 FP/turn
Cockatrice	225	875	125	425	50	125	50	75	—	—	3 FP/turn
Flying	1500	3000	2000	450	200	300	—	—	—	—	2 FP/turn
Gorgon	225	1000	125	400	100	200	50	150	—	—	1 FP/turn
Flying	1500	3500	250	500	250	350	—	—	—	—	0.5 FP/turn
Griffin	225	2500	125	750	75	450	75	200	50	100	2 FP/turn
Flying	2500	7500	250	725	250	400	—	—	—	—	0.5 FP/turn
Harpies	225	500	100	200	50	125	25	50	—	—	5 FP/turn
Flying	1500	3750	250	700	250	375	—	—	—	—	1 FP/turn
Hippogriff	225	2500	125	625	75	325	75	150	75	125	2 FP/turn
Flying	2500	6500	250	700	250	425	—	—	—	—	0.5 FP/turn
Hydra	225	1000	100	175	25	150	50	250	50	250	6 FP/turn
Manticore	225	2500	125	750	75	450	75	200	50	100	8 FP/turn
Minotaur	225	1000	125	450	75	300	75	150	75	150	2 FP/turn
Pegasus	225	3000	125	450	75	300	75	150	75	150	2 FP/turn
Flying	3000	9000	250	500	250	375	—	—	—	—	0.5 FP/turn
Unicorn	225	3700	125	1000	100	550	100	200	100	200	0.5 FP/turn
Wyvern	225	900	175	300	75	150	25	75	—	—	FP/turn
Flying	2000	3750	250	450	250	350	—	—	—	—	1 FP/turn
Will o'Wisp											
Flying	225	2000	225	2000	225	2000	225	2000	225	2000	—N/—A
Young Dragon	225	1300	150	600	100	400	100	250	—	—	7 FP/turn
Flying	2500	6000	250	500	250	400	2500	6000	2500	6000	2 FP/turn
Mature Dragon	225	1500	150	600	100	400	100	250	—	—	10 FP/turn
Flying	3000	7500	250	450	250	375	3000	7500	3000	7500	1 FP/turn
Old Dragon	225	1800	150	650	100	450	100	275	—	—	10 FP/turn
Flying	3000	8500	250	250	250	250	3000	8500	3000	8500	0.5 FP/turn

TERRAIN MOVEMENT (in yards/meters per 2.5 minutes; — 73 = m.p.h.)

	In Open		Undergrowth		Dense Cover		Swamp		Swimming		Endurance
	Walk	Run	Walk	Run	Walk	Run	Walk	Run	Av.	Max.	
UNDEAD											
Skeletons	225	850	100	425	75	275	75	125	—	—	—N/—A
Zombies	150	500	100	300	50	200	50	100	—	—	—N/—A
Ghouls	225	900	125	425	75	325	75	175	75	125	—N/—A
Deaths	225F	850F	225F	850F	225F	850F	225F	850F	225F	850F	—N/—A
Wights	225F	850F	225F	850F	225F	850F	225F	850F	225F	850F	—N/—A
Vampires	225	925	125	475	75	325	75	175	—	—	—N/—A
Vamp. Bat/Gas	250F	2000F	250F	1500F	250F	900F	250F	2000F	250F	2000F	—N/—A
Spectres	250F	1000F	250F	1000F	250F	1000F	250F	1000F	250F	1000F	—N/—A
Mummies	150	850	100	450	75	300	75	125	—	—	—N/—A
Wraiths	250F	1000F	250F	1000F	250F	1000F	250F	1000F	250F	1000F	—N/—A
Nazgul	250F	1000F	250F	1000F	250F	1000F	250F	1000F	250F	1000F	—N/—A
Ghosts	150F	1000F	150F	1000F	150F	1000F	150F	1000F	150F	1000F	—N/—A
Phantoms	250F	1000F	250F	1000F	250F	1000F	250F	1000F	250F	1000F	—N/—A

All Undead marked 'F' are in a 'flying' mode. Such Undead are incorporeal or else are a flying form of being (Vampire Bat, for instance), and when they are immaterial they are unaffected by intervening terrain features.

ENCOUNTERS

Since the major portion of role-playing activities involve encountering some person, monster, or beast, the systems by which encounters are determined will be crucial to the conduct and balance of any campaign. In a 'known' world context, the input of the campaign designer is crucial, for it is he who must interpret the world and gauge the probabilities of a particular type of encounter in a given location. All the encounters which are conceivable are not necessarily all possible or realistic. The nature of the being(s) encountered and the likelihood of being encountered in a given location must be decided in the light of the particular campaign.

Encounters may be of two types, planned encounters and chance encounters.

Planned encounters result from the Game Master's deliberately placing certain persons, beasts, or monsters in a specific location. If the adventure party chances upon the place in which the being(s) can be encountered, an encounter is highly likely. However, even this is subject to the peculiarities of the being, the time of day or night, and so on.

Taking Tolkien's Lord of the Ring as an example, Wights will be encountered in the Barrow Downs, but only at night because they remain in their tombs in daylight. An encounter probability would take that factor into account, making daylight meetings 0%. Night meetings could be a straight percentage chance or, perhaps, a percentage related to the distance the party is from the barrow of a particular Wight. Since such encounters occur in relation to the Game Master's conception of the region, it is properly his task to decide such matters. Planned encounters tend to be part of a carefully conceived and orchestrated scenario, and it is fitting and right that the Game Master exercise control over the action.

Chance encounters result from random probability determination — the luck of the dice. No universal set of encounter tables can be designed which serve the needs and desires of every campaign. It is with this consideration in mind that the following pages of chance encounter tables are presented as MODELS upon which Game Masters can pattern their own encounter tables. Of course, it might be that the tables are generally applicable as they stand, but they should in no way be regarded as authoritative and absolute. C & S is a designer's game, and percentages should be changed to suit the nature of the individual campaign.

Chance encounters should always be seen as compromises. They are guides to play, and Game Masters are used to exercise discretion whenever the encounter rolled would be unlikely in the world they have conceived or would result in untoward play imbalance. There is nothing clever in the random appearance of a monster so fearfully powerful that a party will have little chance against it. That is where Game Masters may use behavior patterns of encountered beings to role play them and develop situations which can offer a chance of survival to outmatched parties of adventurers. The chance encounter is, furthermore, a scenario generator, a source of ideas and situations permitting players to react to various factors of their environment. Combat need not be the primary object on the part of the Game Master or the players.

NON-PLAYER CHARACTERS (NPC)

The following procedures are recommended once a chance encounter occurs:

1. Determine the Alignment of the NPCs. Roll D20 for the leader of the group encountered. It is the leader's moral character that will govern the actions of his followers. Only if it is important to the action will other Alignments be found for the remaining NPCs. It should be noted that Alignment differences (eg: Chaotic meets Law) do not automatically signal the commencement of hostilities. Alignment is a measure of mortal character, not fanatical devotion to some religion or other.

2. Determine the experience levels of the NPCs encountered, as described below:

NON-PLAYER CHARACTER FIGHTING MEN

Roll D100 to determine the type of Fighting Men encountered. Numbers are highly variable, but they should be consistent with the location, the situation, and considerations of common sense and balanced game play:

01-65	= Men-at-Arms
66-90	= Mounted Sergeantry
91-00	= Knights

Mounted Sergeantry could easily be accompanied by foot troops. Knights are often attended by Squires, Mounted Sergeantry, Men-at-Arms, Ladies, and indeed almost anyone that might be under their protection or a member of their court if the Knight leading the group is of high noble rank.

Men-at-Arms will be of experience levels 1-10 (roll D10), with a Sergeant of experience level 6-15 (roll 5 + D10) commanding parties of 10 men or more. Large parties will have a number of Sergeants as section and company commanders.

Mounted Sergeantry will be of experience levels 6-15 (roll 5 + D10), for they are hardened veterans. The leader always has the highest experience level (roll 2 D10 or take the experience level of the highest Sergeant).

Knights will be of experience levels 6-25 (roll 5 + D20). Squires will be of experience levels 1-6 (roll D6) if Squires-in-Training or of levels 6-15 (roll 5 + D10) if Squires-at-Arms. To determine social rank of Chivalry, use the C & S Social Class determination. This will generate encounters with Lords and Princes.

Once experience is found, determine the service and intentions of the NPCs. The percentages are optional and may be altered to suit the nature of a particular campaign:

Men-at-Arms/Sergeants Owning Service:

01-30	Vassals of Landed Knight
31-40	Vassals of Bannerette or Baron
41-50	Vassals of a titled Lord
51-60	Vassals of the King
61-70	Mercenaries of a Fighting Order
81-90	Employees of a Merchant/Guild
91-00	Mercenaries:
01-50	Contracted company
51-75	Free Company
76-00	Unattached

Intentions or Duty of Fighters Encountered:

Vassals subtract -5%; free Mercenaries 46-00 only

01-25	Patrolling/guarding/collecting taxes
26-45	Checking out/arresting suspicious strangers
46-50	Fighting some enemy
51-55	Recruiting
56-60	Looking for an enemy/thief/etc.
61-65	Looking for personal enemy
66-70	Going to/from some assigned duty
71-75	Looking for entertainment
76-80	Talking, wagering, etc.
81-85	Going to visit friends/coming home
86-87	Message for member of adventure party
88-00	Camped/setting up camp/cooking meal, etc.

Knights Owning Service:

Lords do not check service unless not of titled rank, and are held to be independent is 31-80 is not rolled:

01-30	Vassal of Landed Knight
31-60	Vassal of Lord
61-70	Member of a Fighting Order
71-80	Vassal of the King
81-00	Knight Errant (unattached)

Knights-Errant will never roll an Intention/Duty under 26 and will challenge all Knights encountered to a 'friendly' trial at arms. A Lord may delegate a champion to fight in his place.

Intentions or Duty:

01-25	Patrolling/guarding/inspecting demesne
26-30	Fighting some enemy
31-45	Hunting
46-60	Going to visit friends/coming home
61-75	Escorting Lady/party under protection
76-80	Looking for enemy
81-85	Looking for Monster
86-90	On quest
91-95	Camped
96-99	Looking for entertainment/talking/wagering/etc.
00	Message for member of adventure party

Remember, wherever the Game Master finds it advantageous to the course of the adventure, he has the option of altering the intention or duty stated by the random result. For example, in times of war, Fighting Men will tend to be patrolling and are highly suspicious of strangers. Knights encountering Knights will joust (in a friendly way unless they are enemies) out of courtesy and custom. NPCs are characters too, and may be role-played as suits the occasion.

NON-PLAYER CHARACTER BRIGANDS

Depending on the area, brigands may be mounted or on foot. Mounted brigands tend to be found in open countryside, where cover is sparse, and represent large, well-organized bands. Most will be in class 0 to 3 armor; leaders and their lieutenants may have class 3 to 5 armor. Fighters average 20% of the group encountered, non-fighters 80%.

Brigand/Fighters:	Experience level D10
Brigand/Leaders:	Experience level D10 + D6
Brigand Lieutenants:	Experience level D10
Brigand Non-Fighters:	Experience level D6

Intentions of Brigands, Deployment: (roll D100)

01-20	Ambush & robbery by D20 on foot
21-30	Ambush & robbery by D10 mounted
31-35	Ambush & robbery by D20 mounted
36-43	Pursuit by D10 on foot
44-50	Pursuit by D20 on foot
51-65	D20 on foot/D10 mounted ahead & robbing or pursuing others
66-75	On way to prepare ambush/to hideout*
76-80	In search of entertainment, etc.*
81-85	Camped*
86-90	Pretending to be wayfarers*
91-95	On way to/from 'Fence'*
96-98	Messenger to brigand chief/fence/etc.
99-00	Messenger to member of adventure party.

* Numbers variable. A brigand camp may be quite large and Game Master discretion should be exercised when giving the apparent char-

acter of the place and the men in it. They could appear 'innocent' hunters, wayfarers, etc., or look guilty as sin.

NON-PLAYER CHARACTER THIEVES

Thieves tend to limit their operations to the towns, although they can be found accompanying parties of wayfarers. 85% belong to Guilds, 15% are independents, the latter operating in small towns, villages, and the like where Guild organization is relatively non-existent.

Thief/Non-Fighter:	experience level D20
Assassin/Fighter:	experience level D20

Intentions of Thieves: (roll D100)

In town:	85% Guildsmen, 15% Independent
Country:	20% Guildsmen, 80% Independent*

01-35	Attempt to cut purse/pick pocket
36-50	Intent on mugging, has Assassin thug(s) as partner, and follows you waiting for opportunity
51-65	Intent on burglary, 25% chance of following you home if you appear to be prosperous.
66-70	Con man looking to cheat victim
71-75	Gambling and looking for victim (clogged dice, etc., giving 2% advantage/experience level to the thief).
76-80	On Guild business
81-85	Looking for entertainment
86-90	Looking for a 'job'
91-93	On way to/from 'Fence'
94-96	Hiding/fleeing from crime
97-98	Hiding/running from Watch
99-00	Messages to remember of party

Intentions of Assassins: (roll D100)

In town:	85% Guildsmen, 15% Independent
Country:	30% Guildsmen, 70% Independent*

01-25	Intent on mugging a member of the party
26-35	In the act of mugging someone else
36	Intent to assassinate a member of the party ('contract' let by unknown enemy)
37-40	In the act of assassinating someone else
41-45	Hiding/Fleeing scene of the crime
46-49	Hiding/Fleeing from the Watch
50-55	Pimping
56-60	Extorting 'protection money' from a Tradesman
61-65	Extorting 'protection money' from party
66-70	With Burglar going to/from a 'job' or on lookout during a burglary.
71-75	On Guild business
76-90	Looking for entertainment. May wish to gamble but 'hates' losing.
91-00	Looking for a 'job'

* Independents in the countryside, small towns, villages, etc., tend to be affiliated with a band of brigands.

Thieves and Assassins are the masters of the indirect approach and rarely, if ever, advertise their identities or intentions. Many will assume the guise of respectable citizens or, indeed, appear to follow accepted trades in the community. Game Masters should orchestrate encounters accordingly. Females with exceptional beauty may attempt to use feminine wiles to gain their ends.

Beggars (roll D6 for experience) are Non-Fighters. They tend to seek handouts with a persistence that can be maddening at the best of times and utterly obnoxious at their worst. They also function as information gatherers for both the Thieves' Guild and the local authorities, for they see much in their line of work and make it a point to accost all strangers to obtain alms. When rebuffed, they tend to be insulting to the extreme.

NON-PLAYER CHARACTER CLERICS

Clerical types tend to be drawn from a wide variety of Church institutions and will be involved in a broad variety of pursuits.

Established Clergy are members of the formal Church hierarchy and have a 65% chance of being abroad on Church business and a 35% chance of being out on private business:

01-10	Seminary Student or Deacon	Experience level D6
16-25	Priest (no parish)	Experience level 4 + D6
26-35	Curate	Experience level 4 + D10

36-50	Chaplain (to Knight or Lord)	Experience level 6 + D10
51-65	Chaplain (to Bishop, Primate, etc.)	Experience level 6 + D20
66-90	Rector (Parish Priest)	Experience level 6 + D10
91-95	Dean	Experience level 8 + D10
96-98	Canon	Experience level 8 + D10
99	Archdeacon	Experience level 10 + D10
00	Bishop (10% chance Archbishop, 5% Primate)	Experience level 10 + D20

Church Business:

01-30	One of the following, as appropriate to the Cleric's rank: —buy/sell with town tradesman —buy/sell with Guildsmen —visit/negotiate with nobleman —negotiate with local authorities —negotiate with Lord, Crown —Church Convocation or Conference —going to visit Church superior —inspection of Church domains —delivering message	
31-40	Healing the sick in the community	
41-50	Soliciting alms for the poor	
51-60	Preaching sermon	
61-70	Seeking materials for Santification of sacred waters, scroll, etc.	
71-80	Dispensing alms to the poor	
81-90	Seeking out the ungodly	
91-95	Seeking out a specified heretic or Enemy of God	
95-00	Any other mission allocated	

Private Business:

01-25	Going on pilgrimage or quest	
26-30	Looking for religious books to buy	
31-35	Eating/drinking or seeking same	
36-40	Looking for entertainment	
41-50	Taking care of family or friends	
51-60	Going to the hunt, tourney, or to practice fighting skills.	
61-70	Going to seek a quiet place of meditation or meditating	
71-90	Protecting the poor from unjust oppression	
91-00	Any other activity that is suited to a Cleric. (Here, the Alignment plays a significant role, and the Cleric of high alignment may be getting into trouble or doing something frowned on by the Church)	

When rolling Alignments for Clerics, re-roll scores over 10 for Bishops, Archdeacons, and Canons. No Cleric will have an Alignment over 16.

Monastic Clergy are members of a cloistered religious order and have a 90% chance of being abroad on Church business and a 10% chance of being about on private business:

01-10	D10 Novices + 1 Monk/Nun (of level 4 + D10)	Experience level D6
11-20	D10 Lay Brothers + D6 Monks (of level 4 + D10)	Experience level D6
21-85	D10 Monks/Nuns	Experience level 4 + D10
91-99	Chapter Official (Chaplain, Cellerer, Precantor, Sacristan, Almoner, with 01-10% chance of Abbot or Abbess in party). D20 Monks/Nuns (above)	Experience level 8 + D10
00	Official of Monastic Grand Order, with escort	Experience level 8 + D20

Church Business: as for Established Clergy.

Private Business: as for Established Clergy.

Friars are mendicant monks or may attend a small rural chapel. They are very much in the world and have only a 25% chance of being abroad on Church business and a 75% chance of being about on their own business:

01-75	Mendicant (vow of poverty)	Experience level 2D6
76-95	'Fighting' Friar (Friar Tuck variety)	Experience level 2D10
96-00	Hermit (Alignment 1-2)	Experience level 8 + D20

Church Business: as for Established Clergy.

Private Business: as for Established Clergy.

Military Orders are Fighting Clerics and tend to be very efficient and fanatical warriors. They have a 1-50% chance of being on patrol (highly suspicious of infidels), 51-75% chance of being on Church Business, and a 76-00% chance of being on private business:

01-40	Sergeants/Men-at-Arms	Experience level 5 + D10
41-90	Knight of the Order (plus attendant troops, if appropriate)	Experience level 5 + D20
91-95	Chapter Officer (Knight Commander/House Master)	Experience level 10 + 2D10
96-99	Provincial Officer (Provincial Commander)	Experience level 12 + 2D10
00	Officer of the Grand Order (Seneschal/Grand Master)	Experience level 15 + 2D10

A ranking official of a Military order will tend to have an escort of lordly proportions.

Church Business: as for Established Clergy.

Private Business: as for Established Clergy or for Knights or Fighting men.

NON-PLAYER CHARACTER MAGICK USERS

Magick Users should not really be encountered randomly in a **C & S** campaign. They are typically few in number in any true fantasy novel or legend, and they should be rare in a game as well. Because of their Art, they rarely are in places as a matter of chance, and thus should be pre-determined NPCs who are encountered because they are in a certain place with a definite intention in mind. Such intentions might be:

Looking for entertainment/amusement.
Seeking needed materials for enchantments (if Evil, a 25% chance materials required are sacrifice or victim; if Neutral, a 10% chance).
Going to/from Secret Society meeting.
Going to/from or in place of meditation to contemplate or practice the Arts.
Going on quest to nearby/distant place.
Going to visit friends/coming home.
Going on pilgrimage.
Going on long journey.
On Guild business or other personal business.
Going to eat/drink somewhere.
Seeking personal enemy.
On errand/quest for Master.
Seeking member of adventure party/wishing to involve someone in party with his affairs.

Such a list is endless. In any event, the encounter should be seen as not being a matter of chance at all, for the Mage will be where he wants to be and will meet or avoid the party in accordance with his own plans and motives. All too often the scenario seems to begin in the legends and the fantasy novels, 'I've been waiting for you . . .'

The proficiency and magical equipment of the Mage is highly variable, but some guidelines are in order:

1. **Chance of Focus:** The probability of a Mage having a Focus is directly related to his MKL and his social status:

MKL 1-2: No Focus
MKL 3-8: Probability of Focus = MKL + percentage given below:

Serf	= 1-15%
Yeoman	= 1-30%
Townsmen	= 1-30%
Guildsman	= 1-45%
Noble	= 1-45%
Royalty	= 1-60%
Elf	= 1-70%
High Elf	= 1-90%
Dwarf	= 1-50%

MKL 9+: Focus has been enchanted.

2. **Chance of Magical Items:** The probability of a Mage having magical potions, scrolls, etc., corresponding to Simple Magical Devices (**C & S**) is equal to his MKL + percentage given above for his social class. One check may be made for each MKL he possesses.

3. **Chance of an Amulet of Protection** = MKL + percentage given above for his social class.

4. **Chance of Knowing a Spell:** Refer to **C & S**. This is, however,

only a general guide, and Game Masters may rule that NPC Mages have acquired certain spells, particularly if they are within a specialization (Thaumaturgists, for instance, are masters of Illusions and will tend to have mastered those at or below their casting levels as a matter of course).

5. Devices of Power: When magical devices of great power are concerned, the rule of thumb should always be the level of the Mage and the appropriateness of having such a device under the circumstances of the encounter. Such devices should be rare, by their very nature.

NON-PLAYER CHARACTER ELVES & FORESTERS

All Elves are Magick Users. However, with the exception of the High Elves, who are obviously high-talent Mages, most Elves will not pose much of a problem when setting up chance encounters.

Use the chance of a focus to determine the probability of an Elvish bow. After MKL 9, an Elf will have his bow and a good supply of magical arrows. Encounter percentages would be highly variable, and much depends upon the nature of the area. In Elvish woods, any woodsman encountered would likely be an Elf. Outside such areas, the encounters would tend to be of the 'planned' variety.

Foresters may be encountered perhaps more than any other type of character in a woodland. Some are simply plain humans keeping the game laws; others are Fighters and/or Magick Users as well.

Elvish Foresters	Experience level D20
High Elves	Experience level D10 + D20
Fighter/Foresters	Experience level D20
Non-Fighter Foresters	Experience level D10
Shaman/Dance Chant	
Foresters	Experience level D6 + D20

Most Foresters will tend to be ordinary men, not Magick Users. Fighter/Foresters will usually be on patrol, hunting, and the like. Their task is to keep the woodlands for their Lords and to prevent poaching. They also wage war on monsters and mauling beasts, and act as scouts against invaders. Non-Fighter Foresters are the serfs who have taken up poaching for a vocation or who assist in the great hunts of the nobility.

IN TOWNS & CITIES

A host of different personages can be encountered in urban environments. Indeed, within view of the characters might be seen as many as 20 or 30 different classes of people at one time. Thus the Game Master must exercise quite a bit of personal control over the action. Some people will be readily recognizable by their clothing, etc., and thus questions from the players about the nature of people around them could be met without die rolling; the Game Master will simply decide whether or not the type of person sought is present in the area. Other classes will be less recognizable. In any event, town encounters should be played by ear, to a degree. Of course, a well-developed town will have definite personality NPCs (as in Judges' **Guild City State and Thunderhold**), so some encounters will be planned.

Nature of Urban Encounter

	Morn	Day	Evening	Night	Late Night
No encounter	01-10	01-05	01-10	01-20	01-30
The Daytime Crowd: tradesman, pedlars, pushcart men, entertainers, wagons & tradesman, beggars, Town Officials, Officials of Royal Bureaucracy, pilgrims, messenger, physician, surgeon, University sage/scholar, Guildsmen (10% Guild Syndic), Thieves mingling with the crowd, pimp and/or courtesan, apprentices, runaway serf looking for job, Knights & Squires/Nobles & Ladies, children, commoners, gawking yeomen & serfs, Clerics, etc.	11-65	06-65	11-50	—	—
The Watch	66-75	66-75	51-60	21-35	31-50
Thieves (1-3 in day, 1-10 after dark)	76-80	76-80	61-67	36-50	51-70
Fighting Men	81-93	81-93	68-89	51-70	71-75
Procession (Civic/Church/Noble/Royal)	94	94	90	—	—
Smugglers	—	—	91	68-71	76-80
Illicit Lovers	—	—	—	72-75	81-83
Drunken party-goers (often rowdy)	—	—	—	76-89	84-90
Vermin (rats, feral pets, small animals)	95-00	95-00	92-00	90-00	90-00

Only in towns where there is some reason for a monster to be lurking about in the shadows, (rarely in daytime) should a monster encounter be envisaged. These can be arranged.

Game Masters should orchestrate the scenarios which develop. Not all of the encounters will be aimed directly at the adventure party. For example, an encounter with Thieves could be:

1. A man running with something clutched under his arm, and someone calling from behind, 'Stop, Thief!' Players are obligated to answer the hue-and-cry.

2. A group of shadowy figures crouched over the fallen body of another.

3. A man struggling with an assailant and crying out for help.

4. Several figures lurking in a shadowed doorway. They may be observing a rich merchant on his way home after a drunken party at the Guild Hall.

The choices are manifold, and to limit the possibilities too much by making rigid prescriptions is unnecessary.



ON THE HIGHROAD

Traffic on the roads depends upon the nature of the roads and the surrounding countryside.

Nature of Highway Encounter	Near Town		On Highroad		Rural Road/Near Fief		
	Day	Night	Day	Night	Morn	Afternoon	Night
Serfs to/from town/market/fields	01-10	01-02	01-05	—	01-25	01-25	01-03
Yeomen to/from town/market/fields	11-20	03-05	06-15	01-03	26-35	26-35	04-05
Drovers with herds/flocks & dogs	21-25	06-08	16-22	04-05	36-45	36-45	06-07
Pedlars (ealhordan, tinker, etc.)	26-30	09	23-26	06-07	46-48	46-48	08
Tradesmen with wagons/carts & apprentices (butcher, baker, weaver, tailor, dyer, etc.)	31-40	10-11	27-35	08	49	49	—
Wandering Troubadours/Jongleurs/Players	41-45	12-13	36-40	09	50	50	09
Guildsmen with apprentices (10% chance of Guild Syndic on Guild business)	46-50	14	41-56	10	—	—	—
Banker/Moneylender/Goldsmith/Jeweler (usually with an escort)	51-53	15	46-67	11	—	—	—
Fighting Men (see NPCs. On the fief, it is usually a patrol)	54-65	16-19	48-65	12-16	51-69	51-69	10-12
Pilgrims (mixed types)	66-68	20	66-70	17-18	70	70	13
Beggars/unemployed/cripples/lepers	69-71	—	71	—	—	—	—
Thief/Brigands/Assassin/Courtesan	72-75	21-22	72-78	19-30	71	71	14-15
Animal Trainer/Ostler/Forester/Nobles with dogs & horses. 25% chance of a hunt in pursuit of a quarry	76-77	—	79	31-34	72-77	72-77	16-17
Road Repair crew	78-80	—	80-81	—	78	78	—
University Sage/Scholar/Physician/Chirurgeon/Apothecary	81-83	23	82	35	—	—	—
Messenger/Royal Official	84-85	24	83	36-37	79	79	18
Clerics (see NPCs)	86-90	25	84-89	38-42	80	80	—
Great Lord/Bishop/Prince/King & retinue	91-92	26	90-91	—	—	—	—
Runaway serf/apprentice/monastic	93-94	27-33	92-93	43-47	81-85	—	19-29
Student on Wanderjahr with his Master	95	34	94	48	86	81	30
Animals	96-00	35-95	95-99	49-90	87-98	82-97	31-90
Monsters	—	96-00	00	91-00	99-00	98-00	91-00

Nature of Highway Encounter	Wilderland		Enchanted Forest	
	Day	Night	Day	Night
Serfs/Yeomen to/from town/market/fields	01-04	—	—	—
Drovers with herds/flocks & dogs	05-07	01	—	—
Pedlars	08-09	02	01-02	01
Merchant Caravan (under escort)	10-15	03	03	02
Fighting Men	16-20	04-05	04-05	03
Clerics	21-24	06	06	04
Brigands	25-40	07-25	07-08	05
Pilgrims	41-45	26-27	09	06
Runaway/Deserter/Fugitive	46-50	28-30	10	07
Messenger	51	—	11	—
Forester Patrol/Elvish Patrol	52-65	31-45	12-30	08-20
Hunters/Animal Trainers/Fishermen/Falconers	66-75	46-49	31-33	21
Animals	76-90	50-85	34-80	22-75
Monsters	91-00	86-00	81-00	76-00

It should be noted that a Highway Encounter in Wilderland and Enchanted Forest is subject to a general Wilderland Encounter check beforehand.



IN THE FIEFLANDS

The Fieflands tend to be well-inhabited and, during the day, it is difficult not to meet someone. At night, few tend to be abroad that one would like to meet.

Nature of Encounter	Settled Countryside				Wilderland Fief		
	Morn	Day	Eve	Night	Morn	Day	Night
Fief Inhabitants: in fields/woods	01-70	01-75	01-40	01-30	01-40	01-60	01-10
poachers							
yeomen farmers							
hunters							
friar/hermit/priest							
herdsmen							
lovers							
serfs							
Manor Patrol (25%							
foresters							
in day, 80% at night)							
servants							
Knight & Squire							
The Hunt							
Lord & family							
Strangers: usually on roads; those	71-75	76-80	41-50	31-40	41-45	61-65	11-20
off roads in woods, etc., probably							
are up to little good:							
Cleric							
Fighting Men							
refugee							
runaway							
fugitive							
lost travellers							
troubadour							
smugglers							
jongleur							
poachers							
players							
cattle thieves							
visitor							
spy							
pedlar							
Brigands:	76-77	81-82	51-55	41-45	46-50	66-75	21-40
Animals:	78-99	83-99	56-98	46-95	51-95	76-95	41-85
Monsters:	00	00	99-00	96-00	96-00	96-00	86-00

For encounters in the forest and woods, see 'Encounters in Settled Forest Regions' in the next section.

CHANCE ENCOUNTERS IN FORESTS & WILDERLAND

Wilderness regions tend to be quite empty of human life and few encounters with people occur off the roads. There are different kinds of wilderness as well, and each has its own probabilities of chance encounters. To determine the probability of an encounter, consider the

character of the region, then roll D100 to determine the % chance of an encounter. If an encounter occurs, roll D100 to determine its nature, and move on to the NPC/Animal/Monster Appearance Table appropriate to the situation.

Nature of Encounter	ENCOUNTERS IN TRUE WILDERNESS SETTINGS: (every 2 hours, day & night)											
	On Highroad		Game Trail		In Clearing		Pool/Stream		Off Trails		In Swamps	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
% Encounter	01-25	01-15	01-40	01-25	01-55	01-30	01-35	01-35	01-50	01-30	01-50	01-40
Traffic*	01-15	01-05	—	—	—	—	—	—	—	—	—	—
Woodsmen	16-25	06-07	01-15	01-02	01-20	01-10	01-20	01-10	01-05	—	01-05	—
Sm. Animal	26-80	08-60	16-50	03-35	21-50	11-35	21-50	11-40	06-70	01-40	06-50	01-35
Lge. Animal	81-95	61-80	51-85	36-80	51-90	36-75	51-90	41-75	71-80	41-60	51-75	36-55
Unusual An.	96-99	81-90	86-95	81-90	91-35	76-88	91-99	76-90	81-90	61-80	76-90	56-75
Monster	00	91-00	96-00	91-00	96-00	89-00	00	91-00	91-00	81-00	91-00	76-00

Nature of Encounter	ENCOUNTERS IN SETTLED FOREST REGIONS: (every 2 hours, day & night)											
	On Highroad		Game Trail		In Clearing		Pool/Stream		Off Trails		In Swamps	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
% Encounter	1-45	01-20	01-40	01-25	01-50	01-25	01-30	01-35	01-40	01-30	01-50	01-40
Traffic*	01-40	01-10	—	—	—	—	—	—	—	—	—	—
Woodsmen	41-50	11-15	01-20	01-04	01-20	01-10	01-20	01-10	01-04	01-02	01-10	01-02
Sm. Animal	51-90	16-70	21-55	05-40	21-50	11-45	21-60	11-50	06-70	03-40	11-60	03-45
Lge. Animal	91-97	71-90	56-90	41-85	51-95	46-80	61-95	51-85	71-90	41-80	61-85	46-75
Unusual An.	98-00	91-98	91-98	86-95	96-99	81-92	96-99	86-95	91-97	81-90	86-95	76-90
Monster	—	99-00	99-00	96-00	00	93-00	00	96-00	98-00	91-00	96-00	91-00

Nature of Encounter	ENCOUNTERS IN ENCHANTED FOREST REGIONS: (every hour, day & night)											
	On Highroad		Game Trail		In Clearing		Pool/Stream		Off Trails		In Swamps	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
% Encounter	01-25	01-25	01-45	01-30	01-60	01-35	01-45	01-35	01-55	01-40	01-60	01-50
Traffic*	01-05	—	—	—	—	—	—	—	—	—	—	—
Woodsmen	06-10	01	01-05	01	01-05	01	01-05	—	01	—	01-03	—
Elves, etc.*	11-20	02-05	06-15	02-03	06-15	02-10	06-15	01	02-10	01	04-06	—
Sm. Animal	21-60	06-50	16-45	04-35	16-45	11-30	16-40	02-35	11-50	02-40	07-50	01-30
Lge. Animal	61-80	51-70	46-85	36-70	46-85	31-60	41-80	36-70	51-70	41-60	51-75	31-50
Unusual An.	81-95	71-85	86-95	71-80	86-95	61-75	81-90	71-83	71-85	61-75	76-90	51-65
Monster	96-00	86-00	96-00	81-00	96-00	76-00	91-00	84-00	86-00	76-00	91-00	66-00

*Traffic as given for The Highway.

*Elves, etc., refers to the fact that Enchanted Forests usually 'belong' to someone, and unusual or magical things are happening in them. In Elvish Forests, most Woodsmen are Elves. In Entish Forests, Woodsmen or Elves could be Ents, at the Game Master's discretion. In other Enchanted Forests, Woodsmen, Elves, etc., could be patrolling Foresters, Men-at-Arms, and the like.

Encounters do not have to be face to face. In many instances, players will merely hear the song or cry of a bird or animal or see its tracks. In the case of the latter, the Game Master may rule on their freshness or age. In some instances, the animals, etc., could be in places of concealment and watching the party. Such matters could be made subject to random determinations, but it perhaps restricts the Game Master too much. The following behaviors are therefore given as suggestions of possible actions:

Birds

Flying overhead
Singing in tree/bush/on rock
Sitting in tree overhead
Swimming (water fowl)
Nesting
Silently watching party
Feeding
Making kill (if predatory)
Bird messenger

Animals

Hungry and looking for food
Grazing/eating kill
Stalking prey nearby (if predatory)
Stalking party (if predatory and large or in packs)
Thirsty and looking for water/drinking
Urinating/defecating
Mating/rutting (if springtime)
Sleeping/sleepy and unalert
With young
In open/under cover
Animal Messenger
Marking territory/defending territory against trespass
Fleeing/hiding from predator or hunters nearby

Unusual animals and Legendary Beasts tend to behave in a manner consistent with the above. In the case of Great Eagles, Griffins, and the like, who inhabit the High Places and come to Earth only to make a kill, the options are more limited.

MONSTERS

Monsters have a vast number of motivations. Unintelligent and semi-intelligent monsters tend to behave like animals, for the most part. Intelligent monsters behave with the same cunning and attention to planning that characterizes any party of men. Goblins, Trolls, and their kind will tend to have such intentions as robbery, robbery and killing, taking captives for ransom, etc., but it can be possible that they are cold, lost, hungry and afraid in some circumstances. Game Masters should avoid the Killer Instinct and play the situation with some imagination. Rarely are all monsters hostile at all times.

Goblins, Trolls, Giants:

Camping/preparing meal/eating & drinking
Setting ambush for party
Setting ambush for others
Ambushing other party
Robbery intended
Robbery & slaying intended
Capture for ransom intended
Lost and Seeking aid
Returning from raid with loot/prisoners
Seeking enemy
Hunting game/dressing carcass/fishing
Patrolling area for 'The Boss'
Bandaging wounds after losing battle
Collecting toll
Escorting someone
Looking for work with a generous Chaotic
Riddle game desired (Giants, Goblins)
Terrorizing villagers/cattle 'lifting'
Torturing prisoners
Requesting information, directions
Giving information, directions
Lying outrageously
Building fort/bridge/cave complex
Preparing for war/planning raid
Meeting with mysterious strangers
Gambling/offer to gamble with party
Quarrel in progress

Dividing loot (often quarrel in progress)
Pillaging ambush caravan/looting bodies
Having 'fun' skinning Dwarves/Hobbits/Elves
Preparing gallows/stake and faggots/etc.
Using gallows/stake and faggots, etc.
Cutting down trees (bad in Elvish and Entish forests)
Causing a fair damsel distress
Aiding friends
Coming to aid of friend in party
Recognizing member of party from former expedition (friend/foe)
Evening old scores and accounts
Settling leadership of their band
Intending to buy/sell/trade goods, loot or prisoners
etc., etc., etc.

From the foregoing, it becomes apparent that more than just another bout of killing may be in the offing. Intelligent monsters behave in much the same manner as people do, only they tend to express their desires in actions perhaps a trifle more 'crude' and 'vulgar' than in human society.

Goblin races and Gnolls may be given favorite weapon bonuses (C&S) for weapon skill. Only one weapon should be singled out. Kobolds and Goblins would receive non-fighter bonuses, while Orcs, Uruk Hai, Hobgoblins, Bugbears, and Gnolls have fighter bonuses. Goblin race ranks of King, Orc-Lord, and Uruk Hai Warlord are able to use any Chivalric foot weapon. All Goblin race officers are equivalent to Sergeants and may use the Chivalric scimitar or any battle axe in the Chivalric combat table. All regular troops use Infantry weapons or the Goblinoid scimitar:

Goblinoid Scimitar (infantry weapon) 100 SP/7 Dr. wt./3 blows/
2 WDF/Length: 3.

0	1	2	3	4	5	6	7	8	9	10
50	45	40	35	30	20	15	10	05	00	-5
30	25	20	15	10	05	00	05	05	05	05

Goblinoid weapons may be obtained from Goblins or from a veteran of a battle with Goblins who have carried off a souvenir.



Exceptional Monsters:

The C & S monster/animal characteristics are capable of some modification to permit the development of exceptionally dangerous adversaries. As a rule of thumb, such creatures could have their body/fatigue levels increased by up to 25%, their hit bonuses by 25% (eg., if hit bonus was +2=, 125% = +25%), and similarly their dodge and parry bonuses could be improved. Such creatures would appear quite 'normal' until engaged in a fight.

Water Trolls:

Water Trolls are noted for their high intelligence and skill in many of the legends. One feature is their ability to use weapons with particular skill, although they also fall back on fang and claw. Give Water Trolls full weapon skill bonuses as for Fighters for 3 weapons, such weapons being of any class.

Giants:

Giants are really crummy fighters, so give them non-fighter weapon skill bonuses for infantry weapons and non-fighter weapons. One weapon may be selected.

SMALL ANIMAL ENCOUNTERS

Depending upon the type, location, time of day, season, etc., from 1-20 small animals may be encountered. Some will be solitary, others in groups, depending upon their natures. Game Masters should use discretion when determining numbers and behavior of encountered animals rather than depending upon random dice.

Animals Encountered	On Highroad		Game Trail		In Clearing		Pool/Stream		Off Trails		In Swamps	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
Badger	—	01	01-02	01-04	01-02	01-04	01	01	01-02	01-04	—	—
Bats	—	02	—	05-06	—	05-07	—	02	—	05-06	—	—
Crows	01-02	—	03	—	03-04	—	02	—	02	—	—	—
Cuckoos	02	—	04	—	06	—	03-04	—	03-04	—	—	—
Ducks	—	—	—	—	—	—	04-10	—	—	—	01-09	—
Doves	03	—	04	—	07	—	11-13	—	05	—	—	—
Eagle	—	—	05	—	08	—	14	—	06-08	—	—	—
Feral Cat	04	03-04	06	07-09	09-10	08-12	15-16	03-09	09-10	07-12	10-11	02-10
Feral Dogs	05-08	05	07-09	10	11-12	13	17	10	11-13	13-14	—	—
Fox	09	06	10-12	11-13	13-14	14-15	18	11-12	14-17	15-19	—	—
Frog/Toad	—	—	—	—	—	—	19-24	13-22	—	—	12-20	10-25
Geese	—	—	—	—	—	—	25-31	—	—	—	21-2	—
Grouse	10	—	13	—	15-20	—	32	—	18-19	—	—	—
Hawk	11	—	14	—	21-24	—	33-34	—	20-24	—	28-30	—
Hare/Rabbit	12-15	07-11	15-24	14-20	25-40	16-30	35-39	23-29	25-34	20-29	31-33	26-28
Hedgehog	16	12-13	25	21-23	41	31-33	40	30	35	30	—	—
Larks	17-21	—	26-29	—	42-27	—	41-44	—	36-37	—	—	—
Lizards	22-23	14-17	30-31	24-28	48-50	34-39	45-50	30-39	38-39	31-33	34-40	29-45
Nightingale	—	18-20	—	29-30	—	40-41	—	40-44	—	34-39	—	—
Owl	—	21-24	—	31-33	—	42-46	—	45-50	—	40-44	—	46-49
Otters	—	—	—	—	—	—	51-60	51-55	—	—	41-45	50-55
Pheasants	24	—	32-33	—	51-60	—	61	—	40-41	—	—	—
Pigeons	25-27	—	34-35	—	61-64	—	62	—	42-43	—	—	—
Quail	28-29	—	36-39	—	65-70	—	63	—	44-47	—	—	—
Raven	30	—	4—	—	71	—	64	—	48	—	—	—
Sm. Rodents	31-50	25-50	41-55	34-50	72-81	47-70	65-70	55-64	49-60	45-60	45-60	55-65
Skunk	51-55	51-60	56-60	51-57	82	71-73	71-72	65-66	61-62	61-62	61-62	66-67
Snipe	—	—	—	—	—	—	73-78	—	—	—	63-68	—
Sparrows	56-75	—	61-69	—	83-88	—	79-82	—	63-67	—	69-70	—
Swallows	76-77	—	69-70	—	89-90	—	83-84	—	68	—	—	—
Swans	—	—	—	—	—	—	85-86	—	—	—	71-72	—
Thrushes	78-82	—	71-74	—	91-95	—	87	—	69-74	—	—	—
Tortoises	83	—	75-76	—	96	—	88	—	75-76	—	—	—
Turtles	—	—	—	—	—	—	89-91	67-71	—	—	73-77	68-72
Sm. Vipers	84-87	61-66	77-80	58-65	97	74-75	92	72-73	77-78	63-65	78-84	73-79
Lge. Vipers	88-89	67-70	81-82	66-69	98	76-77	93	74	79	66-67	85-88	80-84
Weasels	90	71-72	83	70-71	—	78-80	94	75	80	68	—	—
Roll 1-3 times	91-00	74-00	84-00	72-00	99-00	81-00	95-00	76-00	81-00	69-00	89-00	85-00

LARGE ANIMAL ENCOUNTERS

Large animals may be encountered in the flesh, or else their sounds or tracks may be detected and a bout of trailing may be necessary before the beast is confronted. In the case of tracks, only a Forester character will have any certainty of recognizing the spoor of the beast or of following it for any distance. Most characters will be 'babes in the woods' and would be able to tell little from tracks. The same is true of sounds made by beasts.

Tracks may be fresh or of several days' age, the Game Master making such decisions. On Game Trails, as many as 1-10 different tracks may be found, requiring the expert judgment of a Forester to make any sense of them.

Depending upon the type, location, etc., from 1-20 large animals may be encountered. As in the case of small animals, Game Masters should use discretion and common sense when determining their numbers and behavior.

Animals Encountered	On Highroad		On Game Trail		In Clearing		Pool/Stream		Off Trails		In Swamps	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
Brown Bears	01-05	01-15	01-15	01-15	01-20	01-20	01-20	01-10	01-15	01-10	01-10	01-05
Bears/Young	06-09	16-20	16-20	16-17	21-30	21-22	21-30	11-12	16-20	21	11-14	06-07
Boars	10-25	21-35	21-30	18-30	31-39	31-34	31-34	13-14	21-35	22-30	15-25	08-09
Hinds	26-35	36-38	31-40	31-33	40-50	35-40	35-43	15-16	36-40	31-32	26-32	10-11
Hinds/Young	36-42	39	41-50	34-35	51-60	41-42	44-50	17	41-44	33-34	33-38	12
Great Stag	37	—	51-53	36	61-62	43	51-53	18	45-50	35-36	39	13
Stags	38-39	40	54-60	37-39	63-70	44-46	54-59	19-20	51-60	37-40	40-41	14
Wild Cattle	—	—	—	—	—	—	—	—	—	—	—	—
with bulls	40-50	41	61-65	39	71-76	47-78	60-63	20	61-63	41	—	—
Wild Pigs	51-59	42-45	66-70	40-41	77-79	49	64-65	21-22	64-65	42	42-45	15-16
Grey Wolves	60-70	43-59	71-75	42-55	80-89	50-60	66-75	23-35	66-75	43-55	—	—
Roll Tracks	71-80	60-65	76-90	56-60	90-95	61-65	76-95	36-40	76-90	56-60	46-55	—
Roll Sounds	81-98	66-95	91-95	61-90	96-97	66-85	96-98	41-80	91-95	61-80	56-70	16-60
Unusual An.	99-00	96-99	96-98	91-96	98-99	86-96	99	81-90	96-98	81-90	71-90	61-85
Legendary An.	—	00	99-00	97-00	00	97-00	00	91-00	99-00	91-00	91-00	85-00

UNUSUAL ANIMAL ENCOUNTERS

Unusual animals are those rarely encountered or else those which are not normally encountered in a particular environment.

Animals Encountered	On Highroad		On Game Trail		In Clearing		Pool/Stream		Off Trails		In Swamps	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
Constrictor	01	01-02	01-03	01-03	—	—	01-05	01-05	01-04	01-04	01-08	01-10
Lge. Constr.	02	03-04	04-06	04-06	—	—	06-10	06-10	05-07	05-07	09-16	11-20
Crocodiles	—	—	—	—	—	—	11-20	11-25	—	—	17-35	21-35
Dire Wolf	03-10	05-15	07-16	06-18	01-15	01-15	21-30	26-35	08-20	08-20	36-45	36-45
Grizzly	11-20	16-24	17-29	19-29	16-25	16-30	30-45	36-50	21-30	21-30	46-50	46-47
Polar Bear	21	25	30	40	36	31	46	51	31	31	—	—
Leopard	22-25	26-30	31-38	31-40	27-34	32-40	47-55	52-61	32-41	32-45	51-60	47-56
Lion	26-30	31-32	39-40	41-42	35-40	41-43	56	62	42	46	—	—
Tiger	31-35	32-37	41-47	43-55	41-45	44-48	57-66	63-72	43-55	47-62	61-65	57-62
Wargs	36-50	38-50	48-60	56-75	46-60	49-55	67-72	64-68	56-69	63-75	—	—
Wolverine	51-55	51-55	61-65	76-80	61-65	56-60	72-75	69-74	70-74	—	—	—
Roll Tracks	56-75	56-65	66-80	81-85	66-80	61-65	76-83	75-80	75-85	76-80	66-70	—
Roll Sounds	76-95	66-85	81-90	86-90	81-90	66-85	83-92	81-85	86-90	81-85	71-85	63-80
Legendary An.	96-00	86-00	91-00	91-00	91-00	86-00	93-00	86-00	91-00	86-00	86-00	80-00

LEGENDARY ANIMALS

Legendary animals divide into three categories. Depending upon the appropriateness of their appearance, one, two, or all three categories

might be drawn upon in a chance encounter situation. If a randomized approach is being used, the following probabilities apply:

Creature Encountered	On Highroad		On Game Trail		In Clearing		Pool/Stream		Off Trails		In Swamps	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
Giant Animal	01-85	01-70	01-85	01-60	01-90	01-65	01-90	01-55	01-75	01-50	01-65	01-45
Lycanthropes	86-90	71-85	86-90	61-85	91-95	66-85	91-95	01-80	76-85	51-80	66-80	46-65
Legendary An.	91-00	86-00	91-00	86-00	96-00	86-00	96-00	81-00	86-00	81-00	81-00	66-00

Giant Animal Encountered	On Highroad		On Game Trail		In Clearing		Pool/Stream		Off Trails		In Swamps	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
Giant Ants	01-02	01	01-04	01	01-05	01	01-02	01	01-07	01	01-06	01
G. Centipede	03	02	05-06	02	06-07	02	03	02	08-09	02	07-09	02
Giant Crabs	—	—	—	—	—	—	—	—	—	—	10-15	03-12
Great Eagle	04	—	07-08	—	08-10	—	04	—	10-12	0	16	—
Killer Frogs	—	—	—	—	—	—	—	—	—	—	17-26	13-25
G. Mosquitoes	05	06-09	09	03-07	11	03-09	05-08	03-12	13-17	03-12	27-36	26-35
G. Porcupine	06	10-11	10-11	08-10	12	10-13	09	13-14	18-21	13-17	—	—
Giant Ram	07-08	0	12-15	—	13-17	14	10-11	—	22-26	—	—	—
Giant Rats	09-10	12-14	16-18	11-16	18-20	15-18	12	15-16	27-30	18-22	37-42	36-42
Scorpions	11	—	19	—	21-22	—	13	—	31-33	—	43	—
Giant Skunk	12-16	15-20	20-24	17-22	23-24	19-21	14-15	17-19	34-36	23-27	44-45	43-45
Giant Snake	17-18	21-23	25-27	23-26	25	22	16-19	20-25	37-40	28-34	46-50	46-50
Giant Spider	19	24	28-30	27-29	26	23	20-23	26-69	41-43	35-39	51-55	51-57
War Elephant	20	—	30	—	27-28	24	24-25	—	44-46	40	—	—
Giant Wasps	21	—	31-32	—	29-31	—	26-28	—	47-48	—	56-59	—
Giant Weasel	22-23	25-29	33-33	30-34	32-33	25-27	29-30	30-31	49-50	41-43	—	—
G. Wolverine	24-29	30-35	37-41	35-39	34-38	28-32	31-32	32-33	51-55	44-48	—	—
Roll Tracks	30-40	36-40	42-51	40-44	39-44	33-37	33-41	33-37	56-60	49-53	60-64	—
Roll Sounds	41-45	41-50	52-56	45-59	45-49	38-45	42-50	38-50	61-65	54-60	65-70	58-60
Roll Lge. An.	46-90	51-85	57-80	50-75	50-75	46-70	51-75	51-70	66-75	61-70	71-75	61-65
Roll Un. An.	91-95	86-90	81-93	76-88	76-85	71-85	76-85	71-80	76-80	71-80	76-80	66-70
Roll Lycan.	96	91-95	94-95	89-90	86-87	86-91	86-87	81-88	81-83	81-90	81-85	71-80
Roll Leg. An.	97-00	96-00	96-00	91-00	88-00	92-00	88-00	89-00	84-00	91-00	86-00	81-00

Lycanthropes Encountered	On Highroad		On Game Trail		In Clearing		Pool/Stream		Off Trails		In Swamps	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
Werebear	01-05	01-10	01-10	01-10	01-15	01-15	01-20	01-10	01-10	01-10	01-05	01-05
Wereboars	06-10	11-15	11-25	11-15	16-22	16-19	21-25	11-13	11-25	11-15	06-10	06-08
Werelions	11-15	16-17	26-35	16-18	23-32	20-24	26-30	14-15	26-30	16	—	—
Weretigers	16-20	18-30	36-40	19-35	33-37	25-38	31-40	16-30	31-40	17-29	11-20	09-20
Werewolves	21-30	31-40	41-50	36-50	38-47	39-50	41-45	31-35	41-50	30-35	—	—
Lizardmen	31-35	41-42	51-55	51-54	48-59	51-53	46-50	36-37	51-52	36	21-35	21-30
Ratmen	36-45	43-50	56-60	55-60	60-65	54-63	51-60	38-47	53-55	37	36-45	31-45
Roll Tracks	46-70	51-55	61-80	61-65	66-75	64-68	61-80	48-53	56-70	38-45	46-50	—
Roll Sounds	71-90	56-85	81-90	66-85	76-85	69-80	81-85	55-80	71-80	46-70	51-80	46-80
Roll Leg. An.	91-00	86-00	91-00	86-00	86-00	81-00	86-00	81-00	81-00	71-00	81-00	81-00

Legendary Animals Encountered	On Highroad		On Game Trail		In Clearing		Pool/Stream		Off Trails		In Swamps	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
Dragons	01-02	01-02	01-02	01	01-03	01	01	—	01-03	01	—	—
Blatant Beast	03-04	03-04	03-04	02-04	04-05	02-03	02	01	04-05	02	—	—
Centaurus	05-07	—	05-09	—	05-10	04-06	03-04	—	06-07	—	—	—
Chimera	08	05	10	05	11	07	05	02	08-10	03	—	—
Gorgon	—	—	—	—	—	—	06-07	03	11-13	04	01-03	01-02
Griffin	09	—	11-12	—	12-14	—	08	—	14-18	05	—	—
Harpies	10-12	—	13	—	—	—	09	—	19-20	—	04-06	03
Hippogriff	13	—	14-15	—	15-19	08	10	—	21-24	—	—	—
Hydra	14	06-07	15-17	06-09	20-23	09-11	11-13	04-07	25-29	06-09	05-10	04-10
Manticore	15-24	08-10	18-21	10-11	24-29	12-13	14	—	30-35	10-11	—	—
Pegasus	—	—	—	—	—	—	15	—	36	—	—	—
Roc	25	—	22-23	—	30-32	—	16	—	37-39	—	11-13	—
Unicorn	—	—	—	—	—	—	—	04	—	—	—	—
Will o' Wisp	—	—	—	—	—	—	—	—	—	—	—	11-15
Wyvern	25	11	24	12	33	14	17	—	40-45	12	—	—
Questing												
Beast*	26-29	12-13	25-30	13-14	34-40	15-16	18-23	05-07	46-50	13-15	14-18	16-17
Roll Tracks	30-45	14-20	31-50	15-19	41-55	17-21	24-30	08-12	16-20	19-24	18-19	—
Roll Sounds	46-60	21-50	51-60	21-40	56-60	22-50	31-50	13-40	61-65	21-40	25-50	20-50
Roll Lge. An.	61-80	51-75	61-85	41-70	61-85	51-80	51-70	41-75	66-75	41-70	51-70	51-65
Roll Un. An.	81-95	76-85	86-95	71-80	86-95	81-90	71-85	76-85	76-85	71-80	71-80	66-75
Roll Monster	96-00	86-00	96-00	81-00	96-00	91-00	86-00	86-00	86-00	81-00	81-00	76-00

* Questing Beast Tracks only!

MONSTER ENCOUNTERS

A wide variety and number of monsters can be encountered in a wilderland setting. For the intelligent races, check purpose as for Goblins, Trolls, or Giants. Undead attempt to terrify or slay their victims,

or may attempt to enthrall them for some mysterious purpose of their own. If the monsters appear in an inappropriate setting, reroll on the general encounter chart to see what made a noise, etc.

Monster Encountered	On Highroad		On Game Trail		In Clearing		Pool/Stream		Off Trails		In Swamps	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
Kobolds	—	01-05	—	01-05	—	01-05	—	01-05	—	01-05	—	—
Goblins	—	06-10	—	06-10	—	06-10	—	06-10	—	06-10	—	—
Hobgoblins	—	11-15	—	11-15	—	11-15	—	11-15	—	11-15	—	—
Bugbears	—	16-17	—	16-17	—	16-17	—	16	—	16-19	—	—
Orcs	—	18-27	—	18-27	—	18-29	—	17-22	—	20-27	—	—
Uruk Hai	01-09	28-40	01-05	28-40	01-05	30-40	01-03	23-26	01-05	28-34	01	01-04
Gnolls	—	41-45	—	41-45	—	41-45	—	27-30	—	35-38	—	—
Ogres	—	46-52	—	46-50	—	46-50	—	31-33	—	39-40	—	05-15
Trolls*	—	53-60	—	51-57	—	51-60	—	34-50	06-10	41-55	02-05	16-30
Giant*	01-15	61	01-10	58	01-10	61-64	01-10	51-53	11-20	56-58	—	31-33
Ghost	—	63-63	—	59	—	65	—	54	—	59	06-10	34-40
Skeleton I	16-18	64-66	11-12	60-63	11-12	66-68	11	55-56	21	60	11-14	41-45
Skeleton II	19-20	67-68	13	64-65	13	69	12	57-58	22	61	15-18	46-50
Zombie I	21-23	69-71	14-15	66-68	14-15	70-72	13	59-60	23	62	19-21	51-55
Zombie II	24-25	72-73	16	69-70	16	73	14	61-62	24	63	21-25	56-60
Ghouls	—	74-77	—	71-73	—	74-75	—	63-67	—	64-65	—	61-63
Death	—	78	—	74	—	76	—	68	—	66-69	—	64-66
Wight	—	79	—	75	—	77	—	69	—	70-75	—	67-68
Vampire	—	80-84	—	76-77	—	78	—	70-71	0	76-77	—	69-70
Wraith	—	85	—	78	—	79	—	72	—	78	—	71-72
Roll Tracks/ Sounds	26-75	86-95	17-40	79-90	17-50	80-90	15-50	73-85	25-50	79-85	26-50	73-80
Lge. Animal	76-00	96-00	41-00	91-00	51-00	91-00	51-00	86-00	51-00	86-00	51-00	81-00

* Trolls include Cave, Mountain, Wood, and Water varieties. The type encountered depends to a large degree upon the terrain. Wood Trolls would tend to abound in heavily forested areas, with Water Trolls in areas with pools, streams, or swamps. Cave and Mountain Trolls would be found only in hilly or mountainous regions. Similarly, Giants may be of the Hill, Cave, Cyclopes, or Cloud varieties. Hill and Cave Giants are found in appropriate terrain, while Cloud Giants tend to be great wanderers and go far afield from their towering homes. The Cyclopes tend to be found on islands, tending sheep and goats and inviting wayfarers to dinner.

A number of 'watchdog' monsters like the Basilisk, Cockatrice, Gargoyle, Minotaur, etc., are not included because they are not wanderers. Such beasts tend to remain in the same place as guards and properly are encountered in that role. Similarly, certain highly unusual animals (Apes, for example) and birds (Ibis, Peacock) are encountered too rarely to be worthy of special encounters.

Weather

by Wes Ives

Month	WIND					TEMPERATURE				
	None	Light	Brisk	Blustery	Gale	Cold	Chilly	Fine	Warm	Hot
Jan.	01-60	61-80	81-90	91+	—	01-80	81+	—	—	—
Feb.	01-50	51-70	71-85	86+	—	01-60	61+	—	—	—
March	01-40	41-60	61-75	76-95	96+	01-30	31-70	71+	—	—
April	01-60	61-85	86-95	96+	—	—	01-50	51-90	91+	—
May	01-70	71-90	91+	—	—	—	01-10	11-70	71+	—
June	01-80	81-90	91+	—	—	—	—	01-20	21-80	81+
July	01-80	81+	—	—	—	—	—	—	01-60	61+
Aug.	01-80	81+	—	—	—	—	—	01-20	21-80	81+
Sept.	01-60	61-80	81-95	96+	—	—	01-10	11-70	71+	—
Oct.	01-40	41-65	66-85	86-95	96+	—	01-60	61+	—	—
Nov.	01-40	41-60	61-80	81-90	91+	01-30	31-90	91+	—	—
Dec.	01-60	61-80	81-90	91-95	96+	01-70	71+	—	—	—

PRECIPITATION

Month	Any	Sprinkle	Shower	Heavy	Steady
Jan.	30%	01-40	41-70	71-80	81+
Feb.	25%	01-50	51-80	81-95	96+
March	20%	01-60	61-80	81+	—
April	35%	01-40	41-70	71-90	91+
May	25%	01-50	51-80	81+	—
June	15%	01-60	61-90	91+	—
July	05%	01-80	81-95	96+	—
Aug.	05%	01-80	81-95	96+	—
Sept.	15%	01-60	61-80	81-90	91+
Oct.	25%	01-50	51-80	81-90	91+
Nov.	25%	01-40	41-70	71-85	86+
Dec.	30%	01-40	41-70	71-80	81+

For precipitation, roll first the 'Any' column for the month. If the roll is less than or equal to the listed percentage, roll again for the type of precipitation.

For Temperature and Wind, roll percentile dice and find the column for the proper month to cross reference the die roll for a result.

EFFECTS OF COMBINATIONS:

Cold + Any Precipitation = Snow

Precipitation Type	Amount of Snow
Sprinkle	Light Dusting
Shower	From 1/10" to 1"
Heavy	1-2 Inches
Steady	2 D6 Inches

Snow accumulates during cold weather and melts at a rate of 1 inch per day of chilly weather, 4 inches per day of fair weather, and all snow on the ground on a warm or hot day will melt.

SNOW that is 12-24 inches deep reduces foot movement by one half; deeper snow reduces foot movement to one quarter normal and horse movement to one half normal. Snow less than 12 inches deep (but more than 3 inches deep) reduces foot movement by one quarter.

If Temperature is Hot or Warm, all Showers and Heavy precipitation are accompanied by thunder and lightning. Any precipitation reduces Hot temperatures to Warm and Warm to Fair for the duration of the rain.

If the Wind is Brisk, Blustery, or Gale, reduce Temperatures by one category. This does not allow reduction into unusual categories (no percentage chance for the month) like Cold in May.

If yesterday's temperature was Cold, subtract 10 from today's temperature die roll.

If yesterday's temperature was Hot, add 10 to today's temperature die roll.

If the wind was Blustery or Gale yesterday, add 20 to today's wind die roll.

If there was any Precipitation other than Sprinkle yesterday, subtract 25 when rolling for possible rain today. This may make rain impossible in some months.

PRECIPITATION TYPES

Steady Rain

Travel is one quarter of normal; off-road travel has a five sixths (roll six sided die) chance of becoming lost; roll once each hour for colds; chance of becoming surprised is increased by 30%; Bash percentages are doubled due to slippery footing; everything is soaked and nothing will burn unless it has been specially protected; meals cooked in the field are bad on 1-50%, neutral otherwise.

Duration is 24 hours, with a die roll at the end of the period; if the die roll is 1-2 on a six-sided die, the next day's weather is also steady rain.

SNOW: Results are the same as rain except that things do not get as wet. Fires can be started and food is cooked normally.

Heavy

Same effects as for Steady Rain (and snow); wind increases by one category for the duration of the storm, which is 1 + 1 D6 hours (2-7 hours). Next day's weather is rolled normally.

Shower

Effects as for Heavy for the duration of the storm, which is 10 x 2 D6 minutes (20-120 minutes). If the duration is less than seventy minutes, the party can stay reasonably dry under dense trees or similar cover.

Sprinkle

Duration is 5 x 1 D6 (5-30) minutes. Parties can stay dry under trees. Chance of being surprised is plus 10% (not +30% as for heavier rains). Travel speed is not affected unless the party spends time under trees to keep dry. Roll for colds.

TEMPERATURE CATEGORIES

Cold (—50°C and below)

Cold weather clothing must be worn at all times; failure to do so invites Frostbite on all exposed body parts. Cold weather gear reduces all combat bonuses by one half. Such cold weather gear must also be dry or it affords no protection.

Chance of Frostbite is (35 — Constitution)% per hour. If the temperature is rolled as Cold and there is also a Brisk, Blustery or Gale wind, the chance of Frostbite is (50 — Constitution)%. Frostbite is insidious; thus the gamemaster should not tell the player he is becoming Frostbitten unless he rolls less than or equal to the character's Intelligence on a twenty sided die. If Frostbite is untreated for four hours, it becomes gangrenous.

Shock as a result of wounds is twice as likely to occur. If a person exposed to such Cold weather stops moving for any reason, he will freeze to death in Constitution/4 hours.

Warmth may be obtained by fire, tents, or makeshift shelters (which take three hours to construct).

Chilly (-5° — +5°C)

Shock is 1½ times as likely to occur as a result of wounds; non-activity results in death in 2 x Constitution hours. Proper clothing reduces all combat bonuses by one quarter.

Fair (+5° — +20°C)

Good weather. No modifications to anything.

Warm (+20° — +30°C)

Good weather, but tiring for hikes. Overland distance travelled is reduced by ¼.

Hot (+30°C and over)

Overland travel is reduced by one third; characters with Constitution of 16 or less lose one fatigue point per hour of activity between 10:00 AM and 5:00 PM. After the second consecutive hour of activity during these hours, check for Sunstroke ((20 — Constitution)% if in shade or (25 — Constitution)% if in the sun — treatment is as for shock, except the victim is kept cool).

Characters engaging in Melee during the above hours lose one fatigue point per melee round if in AC 0-3, 2 fatigue points if in AC 4-6, 3 Fatigue points if in AC 7-9, and 4 Fatigue points if in AC 10. If a character has no fatigue points left, do not take off body points, check for Sunstroke.

WIND EFFECTS

Winds serve to cool the ambient temperature. They can also interfere with archery. Use modifiers:

Weapon	Brisk Wind	Blustery Wind	Gale
Bow	-10	-20	-40
Cross Bow	-5	-10	-20

These modifications apply to the archer's chance of hitting his target.

Designing C&S Monsters by Edward E. Simbalist

In the final analysis, any fantasy role-playing game aims at the encounter between man and 'monster'. *Chivalry & Sorcery* monsters might appear to be rather limited in numbers to those players conditioned to the veritable avalanche of dungeon and wilderness nasties that can be found in the prozines and apazines of fantasy gaming and in other fantasy role games. However, it should be remembered that C & S was designed initially as a fantasy simulation set in a middle ages environment, and the monsters chosen for it were those typical of such a setting.

That does not mean that other monsters are automatically excluded from a C & S campaign. Quite the contrary! The fantasy world created by a Game Master and his friends need not be a historical medieval world at all. Remember, feudalism is a type of social/political/economic ordering of society and can apply to Anyplace and Anywhen. The range of possible worlds of fantasy that can be characterized by one sort of feudalism or another is large. Such worlds are limited only by the imaginations and organizational skills of those designing them.

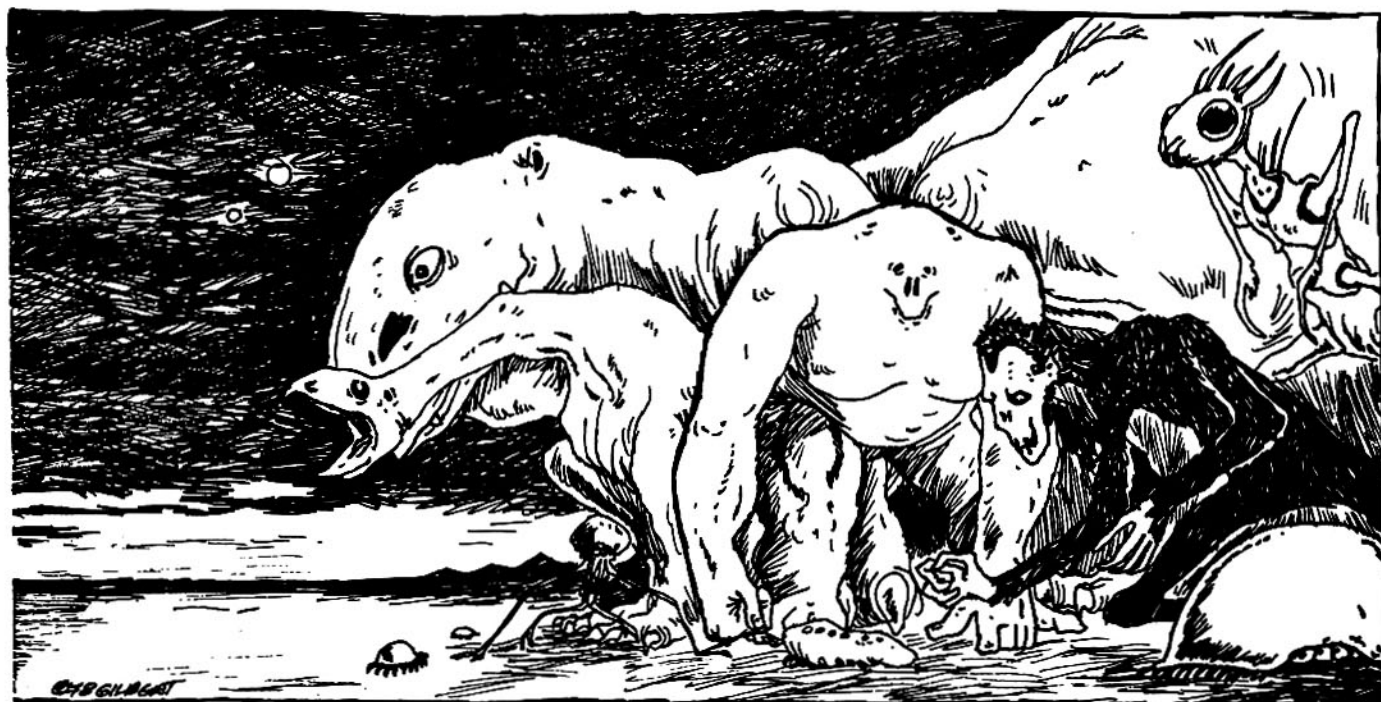
Within a fantasy world, there could be a place for almost any type of creature. But — and it is a very big but — the monsters should have their place! The chance of encountering a given monster should be directly related to its nature and the appropriateness of his presence in a particular region. Some monster types, and especially the exotic varieties created out of whole cloth by players instead of being drawn from actual myth and legend, ought to be strictly limited both in numbers and in the locations in which they might be encountered.

There are players who regard the number of monster types as somehow being a measure of the quality of a campaign. That is a mistaken assumption.

Numbers in themselves never amount to better. There are hundreds of different monsters now available. It is rare that any one Game Master will have the time, inclination, or ability to use them all in an effective manner. Considering that every mistake, every failure to exploit the full potentials of a given monster type results in player victories and experience bonuses, quantity is simply not quality. It is, at best, only a novelty that quickly wears off. At its worst, it is bad campaigning. No gimmick monster, however cute or clever it may be, will ever replace imaginative and skillful Game Mastering.

What is perhaps of greatest value are the possibilities for selecting specific monsters from the plethora of beasts available. Each Game Master has his favorite monsters, as do the players. Selection of monsters for a campaign is a personal matter. It cannot be otherwise, for each campaign will bear the mark of the Game Master conducting it. I, myself, will have nothing to do with monsters that violate my personal sense of what is authentic and reasonable. The monsters I design and use have to meet my standards of believability and good play balance. To a degree, my preferences are a matter of personal prejudice, and I prefer authentic monsters adapted honestly and fairly accurately from actual myth and legend, or from good works of fantasy fiction.

I do not condemn monsters designed outside the bounds of tradition. Umler Hulks have always occupied a special place in my mean



little Game Master's heart. But I do reject many of the poorly conceived monsters arbitrarily designed and introduced into many campaigns without any real thought as to their impact on play balance, not to mention more fundamental considerations which shall be raised shortly. I do not accept any defense of such monsters on the grounds that 'it's only a game'. Nor do I accept the argument that just because the designers of one game or another put in or excluded a monster that I either have to use it or refrain from using it. There is no one true way in such matters except sweet reason and developing fair and balanced play.

BASIC STANDARDS OF MONSTER DESIGN

When choosing monsters to adapt to a fantasy campaign, one has several sources. First, they may be adapted directly from actual myths and legends. Second, they may be drawn from works of fantasy fiction. Third, they can be created entirely as the product of a designer's imagination.

When monsters are based upon real models, models drawn from legend or fiction, a designer is under an obligation to present the monster as it actually appears in the sources. The legends and fictional works provide stories which can be used to gauge the physical and other characteristics and abilities of various monsters. Such stories are valuable guides to design.

Legendary monsters and those of fantasy fiction should be drawn true to their sources because nothing grates on the nerves of someone familiar with the genuine article more than seeing plain violence done to a monster because the designer of that creature was ignorant of the sources or else thought that he could 'improve' on the original model.

Let me give several examples. Hydras (there was really only one) are giant, serpent-like creatures with three heads. According to the Greek legend in which it appears, every time that one head was severed from the body, two would grow instantly in its place. I cannot comprehend the reasoning that converted this very satisfactory, very deadly creature into a dinosaur-like monster! The term 'Hydra' is very specific in meaning. If one is going to name a monster 'Hydra' present the Hydra that Hercules fought, not a totally different creature which bears little or no resemblance to the original. People, like me, who are familiar with the legends will become confused by the indefensible liberties taken. Again, the Gorgons were three sisters with snakes in their hair, one of which was the famous Medusa slain by Perseus. I don't understand how they could be confused with the brazen bulls which Jason yoked to plow a field, one of the tasks set for him to win the Golden Fleece!

Such incredible and insensitive, heavy-handed and ill-informed botch-ups abound in the realm of fantasy role-gaming. If one is going to be original, he should at least have the grace to keep his hands off genuine monsters and invent ones that do not steal their names. As a student of legendary lore and as an educator, I resent the propagation of ignorance.

Dragons are a prime case in point. As I pointed out in *C & S*, Dragons were medieval symbols of great destructive force — almost irresistible in their power. Chinese Dragons, if one is going to turn to that other great source of Dragon Lore, were sometimes very benevolent, but again represented great and almost irresistible force. To reduce them to 40 or 50 hit points worms is plain sacrilege! It misrepresents and degrades one of the mightiest monsters to fly through the pages of world myth and legend. But in how many campaigns is dragonslaying taken for granted because the dragons are pushovers? Try out a *C & S* Old Dragon sometimes. You'll find out why instant promotion and national honors are accorded a dragon slayer! If your character survives the encounter, that is.

Trolls are my first and favorite love amongst the monsters. *C & S* Water Trolls are the epitome of trollism and are modelled after those of Nordic Legend and saga. In particular, the Anglo-Saxon *Beowulf* influenced the game monster for it presents a very satisfying and complete rendering of such creatures in the persons of Grendel and his mother, the dread Sea Hag. They appear as tall, man-shaped beings of great strength and fearsome power. Thus Water Trolls can reach heights of 8' and weights of 900 Dr. (more if armor is worn, which some intelligent trolls did on occasion). Their strength is legendary. Their bodies could absorb incredible amounts of damage, yielding 100+ hit points, and could quickly regenerate. Their armor class is very high, for trolls have scaly, flinty, or rubbery hides that resist ordinary weapons. With their mass they were able to bash and batter their way through a room full of armed warriors, single out a victim, and carry him off with ease. Creatures of darkness, they possess night vision and detest the light of day, but only in Tolkien are they turned to stone by daylight! In battle, their armaments and prowess are formidable, their large claws tearing through armor as if it were cardboard. This is only damage caused by their claws; bites are an added bonus, while 'hugs' can produce still additional damage. Lest anyone think this is extreme, remember that

trolls had a reputation for being able to rip a warrior's head off with a single blow, and two trolls in *Beowulf* terrorized the entire Danish nation. Nor are they stupid; many trolls have an intelligence that is truly fiendish in its cleverness. Nor will trolls — especially water Trolls — ignore the use of weapons, which permits them to do even more damage.

Trolls, in short, are not to be used for combat practice by low level characters.

The guidelines used for legendary beasts are equally applicable for those monsters drawn from fantasy fiction. Be true to the actual monster.

NATURAL LAW

No matter how fantastic the setting, the basic laws of the universe should apply.

This fact about the nature of the universe — any universe — has been all too often lost on many game designers and players alike at one time or another. Part of the problem is that many players themselves are still acquiring a working knowledge of basic physics, chemistry, and biology — as well as any other relevant science. There will be someone out there ready and eager to interject at this point that 'it's only a game'. I agree, but I will remind him that role games necessarily and inevitably simulate environments. Players have been too thoroughly conditioned by their own life experiences and have acquired enough knowledge about what happens in their own world to make setting it aside far too difficult. It is too much to expect of players to demand that they accept an arbitrary universe conceived by the Game Master which has natural laws too far removed from those of our real world. Water flows downhill, not up. Rocks do not hang suspended in midair (unless comprised of ferrous material and buoyed up by an electro-magnetic field). Living creatures can be damaged and killed by physical agencies. These are facts of science. Why should it be suddenly different in a fantasy world?

A Game Master bent on violating natural laws should be required to present detailed explanations of the laws of his universe which conflict with those we know prior to playing in his world.

Any surprises in this area are simply inexcusable.

Biological science should be our general guide when designing natural monsters — creatures of the animal and plant kingdom. Any natural monster that seriously violates biological truth is a poorly designed monster and should be thrown out with the bathwater. Also, if the monster is alive and has a physical body, it can be and is fully subject to physical laws.

Here is a practical application of these principles. Supposing that a Giant Slug is biologically possible, we would do well to begin with an overgrown version of the common garden variety. A giant slug would be sluggish in its movements and would not properly be capable of fast or even moderately fast speeds, even when in a hurry, because of the nature of its locomotive apparatus and its mass. It would have a soft, almost pulpy body, and thus also a very low armor class. Because that body is resilient, it would absorb damage from club and mace-like weapons with ease (1/2 or 1/4 damage at best); but edged or pointed weapons would readily open up its body and allow the escape of internal fluids. Because it is a low order creature, it would possess the vitality of such primitive life forms and would therefore have a body high in hit points. Covered with a slimy secretion, it would likely be resistant to but not proof against fire. Certainly it would instinctively dislike heat, just as real slugs do. A large bag of salt would drive it crazy if broken across its body. Its eyesight would be limited, but it could sense vibrations through the ground (caused by walking or other movement). It would not possess devastating weapons besides an acidic mouth capable of engulfing its prey. Of course, some compromises could be made on this last point, permitting it to spit an acid secretion for 20 or 30 feet. Its intelligence, however, would be excruciatingly low, and its general manner would be pacifistic unless attacked or hungry. Certainly it will be easily confused, and one might readily distract it by throwing it food. With a very low-grade intelligence, magical commands might have to be limited to simple terms, like 'Stop!' or 'Go Away!'. Illusions would instantly be believed by such a creature.

The real danger of a Giant Slug is bumping into it — literally. In a confined space, it could accidentally knock a person down and crush him under its bulk. Hardly exciting, but that's the way it would really be.

Some of the giant worms are really nothing more than magnified and modified insects on the centipede model. Others are more worm-like. The characteristic mark of such creatures in fantasy campaigns is their singularly carnivorous nature. Indeed, a whole host of dungeon crawlies is possible, but some self-restraint is advised on the part of monster designers. Such creatures would tend to be low-grade types, ruled by instinct. With such creatures, 'out of sight' means 'out of mind'. Their powers of 'sticktoitvity' are strictly limited. Thus they

amount to natural subterranean hazards. They would be hard to kill because of their low-level natures, but never would they be immune to natural agencies. Using real-life models in nature would yield the best results. There are enough genuine horrors in nature to provide scads of 'crawlies' for any campaign. Tough, but stupid!

The same is true of giant insects. These will tend to be of a carnivorous nature and will be tenacious in the extreme. Often they will be hard-shelled, yielding a high armor class. They possess considerable vitality. Some, like ants, will be capable of fairly good speeds. However, once again, their intelligence will be low-grade and they will be easily distracted. Model them after their real counterparts. Fire will be devastatingly effective, and even an out thrust torch will cause them to hesitate in the attack.

Higher order animals can be designed from their natural counterparts. Giant versions are merely bigger and equipped with larger natural armaments.

Biological and zoological science will be the source of all relevant factors that shape such monsters. Magnification of size might be impossible in scientific terms, but that is a concession which can be readily supported in fantasy gaming. Incredible armaments and invulnerability to natural forces (sharp weapons, fire, cold, blocks of stone dropped on them, etc.) are indefensible, however.

Various amoebic life forms can be postulated — giant one-celled creatures. But the actual natures of such creatures should not run to silly prescriptions requiring the use of such and such a spell, etc., to stop them because they are mysteriously (and inexplicably) invulnerable to fire or lightning or whatever. Certainly an amoebic creature will find its being attacked by edged or mace-like weapons amusing because its protoplasmic simplicity prevents damage from such attacks. One could stipulate, however, that a hit in the nucleus of a super-sized one-celled creature was a mortal blow. In any event, heat and cold would have devastating effects on them all. Lightning is an electrical discharge producing blast and burn, as well as electric shock, all of which would cause havoc to a simple one-celled organism. With a primitive biological make-up and a totally instinctive directive force impelling it, it would definitely obey instinct and avoid hot and cold places and things!

All manner of oozes, jellies, puddings, and the like are exceedingly primitive life forms. Their sensory apparatus is limited in range and information-gathering power. Their modes of attack are essentially singular: engulf the food and digest it with powerful acids. They will move slowly, definitely slower than a man, and their determination to pursue prey that has slipped outside of sensory range is nil. One would almost have to walk into the reach of such creatures to be in trouble. Above all, they literally don't have the brains to concentrate on more than one task or victim at a time. They certainly would not stalk their prey or be attracted to it from a great distance.

Molds and slimes are easily enough dealt with. These are passive monsters that merely lurk in wait for food to blunder into them. And I mean into them! They would not be able to cause instant rotting or dessication. Such fates are purely the constructs of uncontrolled imagination and strain biological truth. More likely, disturbing a mold could release spores or vapors (secretions from slimes) which paralyze or put a victim to sleep, causing him to fall into the mass of the mold or slime to be digested slowly at leisure. Being of the plant world, such monsters would be highly vulnerable to fire and probably cold as well.

Natural law, then, dictates that monsters correspond to biological and zoological insights. This is not a limitation, but rather a guide which permits a monster designer to check out his latest brilliant idea against what is even vaguely possible and reasonable. He can gauge the nature of the creature and its abilities in the light of real models. If it is too wild, too far out, it should either be discarded or toned down.

LAWS OF MAGICK

No creature, natural or fantastical, shall violate the basic laws of Magick.

P.E.I. Bonewits, a genuine mage and scholar of the occult, has commented in his recent book on *Authentic Thaumaturgy* (Chaosium, 1978) that few game designers and players alike have any real grasp of what magick is all about. Indeed, it seems quite clear from the way magick has been handled by some that it is assumed to be an excuse that justifies whatever they like. They couldn't be more wrong.

Just because fantasy games are being played does not provide any justification to violate the laws by which the universe functions. If Magick is part of the fantasy universe — and we all assume that it is — then Magick will follow definite and discernable laws. All physical objects, all living creatures, and all creatures of magical or supernatural nature or origin will be subject to the laws of Magick.

Thus it is that some Undead, like zombies, are highly resistant to most physical agencies. That is a function of their undead natures. Swords and spears simply do not damage dead flesh the way they do

living tissue. Fire is nasty, but not effective against rotting flesh as it is against living, feeling skin. But, partaking of the supernatural and the magical, Undead are vulnerable to theurgic and thaumaturgic magick. It cannot be otherwise. One cannot have it both ways. If a being is, by some accident of nature or some magical design, immune to ordinary fire, it will not be immune to magical fire. Magick Fire is the very quintessence of the mana itself, the magical forces that pervade the universe. Saying that any being is immune to Magick Fire because the being is magical is missing the entire idea of what Magick is all about. And that is why Undead fear fire; it is magical force, the mana, the one thing that can always consume and destroy them utterly.

Magical creatures are never immune to Magick. Some are more resistant and are harder to target than others, but once targeted they may be more vulnerable to magical operations and effects than are ordinary beings. That is the reason that even the mightiest Demon can be bound or the most terrifying Undead can be ordered hence or a malevolent Spirit can be exorcized. Once the mage or cleric 'has their range', magical and supernatural creatures have real problems.

This issue has to be raised because uncontrolled and uninformed imaginations have churned out many clever monsters that twist and distort the truth of such matters to the point that pure invention knows no reasonable bounds. The characteristics of magical beings must be accounted for in a rational and correct explanation of why the monster is the way it is. If it transcends the laws of the physical and biological universe, it still must answer to the laws of Magick.

THE LAW OF COMMON SENSE

As long as one sticks closely to models drawn from authentic sources, few real problems will arise. The legendary or fantasy fiction sources provide more than enough information by which the capabilities of a monster can be determined. Even better, they justify the very existence of the monster and permit a defensible introduction of the monster into a campaign. When pushed to the wall, one can always 'appeal to authority' and pull the reference text down from the shelf to prove that you knew what you were doing, that such a beastie is not incredible or impossible or ridiculous.

The moment one departs from the known monsters as they are described and sustained by the literature of myth, legend, and fantasy, the chance of real trouble arises. Often, it is due to plain ignorance or insensitivity.

P.E.I. Bonewits, in a general condemnation of the tendency of some game designers and players to create and use supernatural beings of a high order (Gods and demi-Gods in particular), has observed that such people do not comprehend the nature of the forces with which they are dealing. I join in his view. Bonewits, for example, points out the possibility in some games of a mortal actually defeating and slaying a deity like Odin Allfather. Odin was perhaps one of the most powerful beings in Western European myth, and even hinting at his possible demise at the hands of a puny mortal is, in Bonewits' terms, downright sacrilegious. It is, I might add, downright impossible if one remains at all true to the very nature of Odin as the Nordics conceived him. Odin is destined to die under the fangs of the Fenris Wolf at the Ragnarok. To permit any other possibility is to do damnable violence to a great and honored tradition. It totally misses the whole point! Indeed, it exhibits extreme insensitivity to or else ignorance of the materials of Nordic myth and legend. To call a game-construct 'Odin' and not provide him with several hundred thousand hit points, incredible weapon handling capabilities (with attendant damage to his victims), and the equivalent of a 1000 PMFs of magick capability is to be totally lacking in authenticity.

If one insists upon introducing high level deities in a campaign, do it right!

My advice is to stick with low order demons and spirits that are comprehensible and in line with the capabilities of the poor mortals who must cope with them. Messing around with direct and personal interventions by real Gods introduces no end of complexity. It demands comprehensive rules to govern their use by Game Masters and players alike. Worse, it demands a total drawing up of battlelines on the cosmic scale. What are the relationships of the various gods to one another? How do deities of different religions interact? It is a Pandora's Box, a can of worms that best be left unopened. Besides, if a high order Deity did appear, what makes players think He would want to intervene. The ways and purposes of the Gods are mysterious, and they tend, like Crom, to appear, observe, and depart without doing anything for or to those who summon them. Mortal affairs are left for mortals to resolve. As Bonewits comments, it is often because the Gods do not give to men what they want when they want it that the impatient amongst us turn to demonic forces to grant their requests.

Turning from Gods to monsters in general, I submit that the use of random dice to determine such vital factors as body hit points is fraught with problems. I once rolled a 12 HP troll with random dice —

sheer impossibility if one is going to be true to the legends! It is for that reason that C & S monsters were assigned more fixed values. Variations of several hundred percent in the capacity of different monsters of the same type to take damage simply don't make sense. The greater the number of hit dice used, the larger the variation; eight dice, for example, produces an 800% range between lowest and highest values with D8.

I am not saying that there is anything wrong with randomizing a monster's body points with hit dice; I am suggesting that some definite minimum values should be assigned which prevent ridiculously low HP values.

Common sense should also be exercised before one begins to develop a new monster or else to adopt someone else's construct. Ask yourself, 'why is this needed?' There should be a good reason, and I don't mean one like 'Well, it's a neat idea' or 'I have to get something to take of that tough dungeon party' or 'I need something new'. A Game Master's first and most important asset is his imagination and skill at handling the resources already available to him.

If you are creating a monster from legend, be sure to read the legend first. Others have, and if you are too far wrong, your cleverness will come back to haunt you.

If you are departing from known monsters of legend and fiction, realize from the start that design becomes fraught with problems and perils. For when we come to pure invention of monsters that were never contained in any previous source, our enthusiasm sometimes overwhelms all good sense and judgement. We create impossible beings charged with all sorts of cute magical powers and talents and/or with physical abilities and fighting prowess that is enough to turn the hair of a Demon pure white. Often, we ignore the realities of Magick, if we ever were aware of them in the first place.

Remember, you might not be aware of such things, but there always is someone else who is. If he knows his stuff, he won't be impressed or amused at all. Let's be honest. We all indulge in monster design because it feeds our egos and gives us a nice feeling when we see our creations in print in a prozine or apazine or even a game or game supplement. But when we go public, even in our own private gaming groups, we run the risk of being fools, too. That isn't what we want, so let's avoid it.

As a common sense rule, monsters should be less intelligent and less magically capable than are men. There are exceptions, of course, but they are few. The majority are not the equals of man, in the final analysis. This is the thread that runs through the length and breadth of the legends and also most fantasy novels. To endow more than a few monster types with high levels of intelligence and magical proficiency invites the inevitable question, 'Why haven't they taken over the world, then?'.

The foregoing question was asked in all seriousness. We talk about setting up universes, but when we do establish our world, what assumptions do we make? If it is populated by huge numbers of monsters, many of which appear with no more reason than they were rolled up on a random table of appearance, we have a problem. One cannot respond with trite and flippant retorts like, 'It's just a game, haven't I told you that already!' Whenever the game involves a world larger than a dungeon, the problem of maintaining the status quo is highly relevant. The whole story of the *Lord of the Ring*, for example, turns upon the fact that the monsters of the world are massing under one leader and have the numbers and military strength to overwhelm their Human, Elvish, and Dwarfish opponents once Sauron obtains his Ring and neutralizes the magicks of his enemies.

Of course, one might answer, 'Well, the dungeon is enchanted, see, so they can't get out'. Why not? Who was so powerful that he possessed super-powerful magicks (not contained in any set of rules published) mighty and enduring enough to keep them there for all time? Even if such spells exist, what happens when intruders disturb the binding spells? And make no mistake intrusion will disturb them.

Moreover, monsters are not limited to dungeons. In any fantasy campaign worth mentioning, adventures occur in the wide world outside the dungeons, with plenty of encounters with the most wonderful of strange beasts. Not every monster is confined to dungeons.

The point is that every time a new monster is introduced into a campaign, a risk occurs that the whole balance of play will be disturbed. This doesn't mean that new monsters are unwelcome. It means that one has to be careful when a new monster is conceived. Game systems are not designed to absorb an infinite number of variations, whatever the claims of the designers. Sooner or later an overload will occur, and a campaign is in big trouble.

THE LAW OF PREDATION

What do monsters do? How do they survive between adventurers for lunch? Remember, if it is alive, it has to eat. This places monsters right inside the whole food chain. In a sense, I am still talking about Natural Law.

Every creature has its predator. There must be predation if monsters of a carnivorous nature are to survive. This is especially true in dungeons, where the vast majority of monsters are anything except the normal life forms found in nature. But if predation is necessary, how does one account for the prolific numbers of monsters encountered in the dungeons designed by most Game Masters? Further, how does one explain the tendency of such monsters to cooperate in hunting down adventurers? There will be obvious animosities between the monsters because they use each other for food! Who is whose predator in the world of monsters.

Even supernatural creatures will have their natural enemies. Nature has a way of balancing the numbers of the many species that exist in the world. By assigning predatory monsters to each monster type, a balance is reached. Besides, it can be fun — a new dimension in fantasy gaming. It often generates the most unlikely alliances against a common foe.

THE LAW OF THE ACHILLES HEEL

No being is without its weakness. This is especially true of monsters. Each has some signal failing, some chink in its armor, that permits the knowledgeable man to defeat it. Monsters not having a weakness are not true monsters. They are game-constructs designed by the Game Master to kill off characters without affording them a reasonable chance. Thus the mighty dragon has a soft spot right over the heart.

Often, the most powerful monsters will have a bane existing somewhere in the world, a magical weapon or device which will surely slay them.

THE LAW OF LOCATIONS

Does it make sense to find beings, whose natural environment is in the woodlands or plains, in a dungeon as well? Not likely. Water Trolls, for instance, tend to live in underground caves with outlets into streams or rivers. They are, in effect, nocturnal outdoors creatures. Rarely would they be found in dark, damp dungeons far beneath the Earth. It's not their bag. Wolves might make their lairs in an earth den, but their natural environment is in the woods. And so on. When stocking one's world, such characteristics of monsters should be taken into account. The entire world could contain a vast number of different types of monsters. But every kind of monster is not found everywhere — not, that is, unless the Game Master is using a universal encounter system that assumes a universal mix of monsters everywhere on the planet.

THE LAW OF EXCEPTIONAL MONSTERS

Exceptional monsters may appear from time to time. These exceed the usual parameters for a particular monster type. For example, in my own Wolf Hill dwells the incomparable El Lobo, the leader of a pack of dire wolves. He rates at a body of 75, with 500 Dr. weight, % Hit +40, Dodge -35%. His MLB3 fangs deliver +5 WDF, with +5 bites. His intelligence is a very shrewd and cunning 19, with wisdom 20, so he recognizes traps instantly for what they are. He is a veritable DEMON of the wilderness and makes war on his enemies with an almost human ferocity. Fortunately, there is only one of him, although I have made provision for one cub of his to have his general characteristics should he be slain.

Again, Arrgh Ruffluk, a very old and wiley Water Troll, has been running a successful toll bridge for decades. He has a chain hauberk fashioned for him by the renegade Dwarfish armorer Albrecht. Imagine the surprise on the faces of stalwart fighters when they cleave through that armored coat only to be told that a second roll is needed to penetrate the equally armored hide of the troll! After all, penetrating class 8 chain mail does not constitute breaking the skin underneath when that skin is also class 8.

Such exceptions do not violate any rules so long as they are kept to a reasonable minimum and do not exaggerate the capabilities of a monster to an unnatural degree. A heavier body, more hit points, greater speed, higher hit probabilities, more blows/melee round, etc., than the average can all be factors to consider for exceptional monsters.

DESIGNING THE MONSTER

Whether one is designing an entirely new monster never before conceived or is just adapting one taken from legend, fiction, or another game, a general assessment must be prepared. This will list all your impressions and notions about the monster, and it will become the guide for developing the monster's profile. The following factors will be considered:

1. GENERAL CONFIGURATION: The over-all shape of a creature will affect many of its characteristics. For example, if it is bipedal, it will possess certain advantages in combat because it is free to use its upper limbs. But it would probably lose out on movement if it is par-

ticularly humanoid in shape, a configuration not designed for high speeds. A short, thick neck would restrict head movement, a feature important both for purposes of observation and for effective use of fangs.

2. **HEIGHT & WEIGHT:** In the light of the monster's general configuration, height and weight can readily be arrived at. These two factors are significant in deciding upon the agility, carrying capacity, and combat effectiveness of the creature (remember, *C & S* combat systems stress the effects of mass in close combat).

3. **STRENGTH & CONSTITUTION:** Also growing out of the monster's general configuration, these factors largely determine the brute force and the stamina of the monster. Strength has an important effect on the WDF multiplier and the number of blows a monster can strike in a melee turn. Constitution reflects both the resistance of the monster to the shock of injury and its staying power in combat or in long distance movement. It can also have a bearing on the number of blows that can be struck.

4. **CARRYING CAPACITY:** The ability of a monster to bear burdens is often important. Its size, strength, and constitution will all determine its carrying capacity. As a rule, the bigger and stronger it is, the more it can carry. Creatures of weak constitution might be reduced accordingly, despite size; while flying creatures would have fairly severe restrictions placed on loads carried in flight (for good aerodynamic reasons).

5. **INTELLIGENCE & WISDOM:** These factors are really the most significant of all. Monsters with limited mental capacity tend to act instinctively far more than they do with clear and reasoned deliberation. Game Masters too often make the mistake of playing beasts as reasoning beings. A beast (which can be a pretty exotic monster, not just an animal) is never the equal of a highly intelligent creature when it comes to the choice of tactics or any other course of action, for that matter. Mental capacity also affects fighting capabilities, although some beasts can show considerable cunning in a battle to the death. When it comes to magical powers, mental capacity is vital; there should be virtually no serious magical effects possible to creatures of low mentality. Magick is not something that can be handled with a flip of the random dice. At best, some beasts might possess natural talents in the area of Detection, Communication, or Transportation. Only the real heavyweights (always rare as species or as individuals) might have greater powers.

6. **DEXTERITY:** The agility of a creature is largely determined by its general configuration and the environment for which its shape is best suited. Men, for example, are highly agile and can dodge with far greater ease than a bull can, especially in a charge. It's a question of size and physical make-up. Birds are incredibly agile in the air but can only be described as pitifully clumsy on the ground — with the exception of those avians who have given up flight for a life on the ground. And so on. Also, if a monster is equipped with hand-like appendages, it might be able to employ weapons — but rarely if ever with the skill of men.

7. **BODY & FATIGUE LEVELS:** These factors, of course, reflect the general configuration of the creature, size, strength, and constitution. They are also determined, in part, by the legends or fictional stories from which a monster is abstracted.

8. **MOVEMENT:** Once again reflecting general configuration, the speed of a monster will be determined by its locomotive appendages more than any other factor, although strength, constitution, dexterity and weight may individually or collectively have a major part to play here. As a rule, compare creatures to known types, particularly those of the animal kingdom, and use the known creatures as models.

9. **ARMOR CLASS:** The general impression one has of a creature will determine its armor class. However, the heavier the armor in most instances, the slower and less dexterous the monster will be. There are exceptions, but usually armor must make concessions in the way of speed and/or agility (dodge, for example, could be lower for armored types). Most beasts would fall into the 0 to 4 armor classes. Rarely will armor of a natural sort be found over class 5 or 6.

10. **NATURAL ARMAMENTS:** The weapons with which Nature (or the meddling of eugenics-prone Magick Users) has provided a monster will be of exceedingly great significance to the place a monster has in a campaign. The more exotic the armaments become, the less often the creature should be encountered. For example, acid-spitting, poison-gas emitting, fire-breathing, and other such weaponry are highly uncommon. Most typical are fangs/talons and claws/beaks. Some creatures may also possess unpleasant odors (like skunks) or poison fangs or

spines. The exact rating of such natural weapons will be possible by studying the Naturally Armed Monster matrix and deciding which will be most appropriate to the monster as it is conceived.

11. **FIGHTING ABILITY:** The WDF multipliers chosen for the natural armaments, % hit bonuses, % parry bonuses (if any), % dodge bonuses, and other such factors will be determined by a general assessment of what all of the above factors really mean. To a large degree, a fair bit of trial and error is required to at once represent the monster as it should be (true to the sources) and yet avoid play imbalances.

12. **SPECIAL FEATURES:** As hinted at earlier, some monsters may have special powers. Those of high mental ability might have spell-casting powers of some note, provided that those powers are reasonable and in keeping with the nature of the creature. Such beings tend to be members of a race rather than just a species of wandering monster. A few beasts might have special talents. Such natural abilities should be few in number and not many species should have them. Nightvision is typical of nocturnal and subterranean monsters. Keen eyesight is typical of creatures of the plains and the air. Keen hearing, acute sense of smell, the ability to move in silence, the ability to freeze and blend in with the surroundings, all these and many other natural abilities can be given to monsters.

I have been asked by a number of players how to adapt monsters from other games to *C & S*. Before embarking on an explanation of such a task, I would first stress that *C & S* combat and Magick systems differ considerably from those of other games. Indeed, a veritable void of difference exists in some respects; and direct comparisons of abilities, combat or magical, often become so difficult that one might as well design a new creature. This will become clearer when I show how to convert an Umber Hulk.

We are told that the Umber Hulk is large and barrel-like in form, generally humanoid but much more squat and massive. It is capable of ripping its way through rock at an incredible rate with its large claws, arguing for immense strength. Because of the configuration of the creature, which does not allow for a mobile head and neck, I would not grant it any bonuses for biting unless a victim was conveyed bodily to the mouth of the creature by its claws. The jaws, despite their formidable appearance, would not be overly powerful because of the tendency of the monster to depend upon its claws (an evolutionary factor). Since it is capable of tunnelling quickly, I would assign it several additional blows with its claws and give them a high damage multiplier. At the same time, it is cumbersome from its description and likely has little agility or speed. Dodging by such a creature would be a joke. Parrying ability with its claws would be limited. As for the body itself, it would be fairly well armored, capable of taking considerable punishment, and heavy. The monster would also possess Nightvision, being a subterranean creature. Its sense of hearing I would rate as very low, probably equivalent to that of Lower Undead.

The Umber Hulk, by reason of its brute nature (and personal preference) I rate as having low intelligence and wisdom, probably 1-6 on a scale of 20. It is instinctive in its habits and behaviors, probably very dogged in its persistence to dig out prey once it has found it but likely too stupid and too ill-equipped with sense of smell or hearing or sight to track prey that has fled.

Clearly, the monster that is going to emerge from such an interpretation will be an Umber Hulk in name only. The monster necessarily undergoes significant changes in conversion:

IQ: 4-6 Digging: 10ft/turn in sand; 6ft/turn in earth; 3ft/turn in porous rock; 1ft/turn in dense rock.

Wis: 4-6

Targeting: Percentages given for Centaurs
Hearing: as for Lower Undead Movement: 50/130
Environment: Subterranean Dungeon only.

This is the type of analysis that is required to develop a monster in *C & S* terms. Clearly, such interpretation often demands value judgments from the designer. In effect, monsters adapted from other game systems have to be redesigned.

Body Size	Wt.	% Hit	% Parry	% Dodge	Blows	Natural Weapons	WDF	Armor	Experience	
90	8'	800	+25%	−10%	—	+4	MLC6 large claws	+6	5 or 6	2000
			—	—	—	—	MLB3 large fangs	+2		

Monsters are People too by Edward E. Simbalist

One of the most fundamental rules of proper fantasy role playing is that the Players develop their characters so that the PCs generally behave in character as fantasy personalities in their own right, not as mere extensions of the Players' real selves. By definition, role playing is pretending to be someone you are not. It is a deliberate entering into a role, much like an actor on stage, to develop an alternate personality and to depict the character's words and actions in the light of his own personality and motivations. Many players go to great lengths to create detailed personalities for their characters, complete with descriptive names, comprehensive personal histories, a wide range of personal idiosyncrasies, likes, dislikes, personal goals, etc.

Unfortunately, some GameMasters overlook the simple fact that they are not exempted from the role playing activity. Their characters are literally everyone else besides the player characters. This has profound implications for the quality and the general conduct of any fantasy role playing adventure or campaign. For the character play of the GameMaster (or the lack of it) determines what the Players will be encouraged to do or discouraged from doing with their own characters.

It is useless for a Player to try to portray his character as a meticulously drawn person in his own right if the GameMaster fails to reciprocate by playing all of his Non-Player Characters as individuals too. Role playing is interaction between personalities. Much of the real action involves no dice rolling and no consultation of results tables. The action should largely proceed through the spoken interactions between PCs and NPCs and through the descriptive commentary and the spoken responses of the Players as they reply with explanations of what their characters are doing. Common sense and a firm awareness of what is reasonable, realistic, or possible should govern the outcome of such interactions.

If everyone is behaving 'in character', it is possible for the Players to predict the various responses of NPCs to certain actions or proposals made by the Player Characters. Similarly, if the PCs behave 'in character', the GameMaster can anticipate PC reactions to what his NPCs are saying and doing, or to the ongoing flow of events surrounding the PCs. All of this should be self-evident. But it is easy to lose sight of the real nature of role playing. If the GameMaster thinks it unimportant to enter his own NPC roles effectively, the entire activity rapidly degenerates rapidly into mechanical dice rolling and mechanical application of tables of randomized 'outcomes' which have little real bearing on what should or what might reasonably happen in the given situation. Ultimately, a continual conflict situation is created, an eternal 'dungeon crawl' in which every hand/fang/claw is turned against the ever embattled adventurers.

Even worse, those Players who do role play are unfairly penalized whenever their PCs behave in character. That is, the GameMaster may set up a situation loaded against staying in character if any survival, let alone success, is desired. He thereby demands that the Players abandon their characterizations entirely and act merely as wargamers computing the statistical odds (this is called 'mini-maxing') for and against the success of a given action or response. And 'mini-maxing' takes all the role playing out of fantasy role playing. Every character is reduced to a cardboard mask behind which the Player sits and acts just like himself. All the atmospheric effects of a fantasy world become unimportant. The background of the character is made irrelevant. The whole thing is an exercise in game mechanics.

Put bluntly, it becomes boring to anyone with any imagination and creativity.

Let us consider the situation faced by the Knight of a romantic legend when he comes upon a damsel in distress. This is a classical motif. The Knight, if he is to remain true to his vows of Knighthood, will do the chivalric thing and attempt a rescue. That is eminently predictable if the PC is acting in character.

Now, let us consider the 'clever' referee who delights in trapping PCs with cute tricks. Knowing that the Player will have his Knight behave in character, he 'arranges' for the 'lady' to be a vicious little vixen who will deal treacherously with the Knight the first chance she gets. The

nature of the treachery is not important, for the moment. What is important is that she will certainly behave treacherously. That is the sole reason for her being there. The referee, preying on the Player's fitting concern about playing his PC in character, uses that concern to bushwack the PC. But as for his 'lady', he feels little concern that she is not acting in character. Rescued damsels tend to show a warm regard for their rescuers. We have innumerable authorities to establish that as a fact. But, instead, the 'lady' of this adventure sandbags the hero when he is sleeping, steals his purse and horse, and slips away — or whatever! It's plain cheap gaming.

If the lady were to act in character, she could provide plenty of 'excitement' while remaining supportive and adoring. For instance, the damsel will be very ready to volunteer that her Lord can whip anyone else in the place and, hands on shapely hips, will glare defiantly at any fighting men present, daring them to prove her wrong! That is always good for a nasty joust or two. Or she may have extraordinary expensive tastes and, once an inn has been found, will proceed to order a veritable banquet and then eat like a bird. She will become weary at the most inopportune times and will refuse to go any farther until she has rested. She will demand that her Lord's squire fetch and carry and wait on her every whim, driving the poor lad to distraction. She can, in short, make life a real trial for her rescuer — and all perfectly in character. For his part, the Knight will be torn between utter frustration and a growing infatuation with his Lady, who is invariably beautiful and well-born and has a rich, influential father who just might further his interests if he can only get her home safe and sound. That 'home' is a hundred leagues away, across hostile territory, is another insignificant complication. Such are the beauties of honest role playing. Players can be driven close to the brink of insanity without a single 'tricky' move on the part of the GameMaster.

From this point of view, the damsel in distress can prove to be a proper 'monster' — a worthy adversary for the PC. At the same time, she will be entirely on his side so long as he proves worthy of her and shows conventional devotion to her needs.

If monsters are people, too, then people can also be monsters in their own way.

Let us consider a situation in which a conventional encounter can be opened up into a wide range of possibilities. It can also be forced into a highly restricted combat response if the GameMaster ignores his own role playing duties.

A party of adventurers are sitting around their campfire. It is somewhat after sundown, the region is a wilderness known to be filled with dangerous animals and roving bands of goblins and other creatures of their ilk, and the party is somewhat jittery because of the unusual night noises. They killed a deer late in the afternoon, and several fine haunches of venison are roasting on wooden spits over the fire. The meat is almost done to a luscious bark brown. The aroma of the roasting flesh is wafting on the night breeze. The men in the party wait expectantly as the cook leans forward to test the meat . . .

This is an ideal time for an 'encounter'. There is a sound of bushes rustling, the snap of a twig underfoot, and a band of goblins stumbles out of the undergrowth. They number perhaps three times the party. The adventurers, somewhat forewarned, have leapt to their feet and are reaching for the nearest weapons close to hand.

At this point, the stereotyped response is immediate battle. The goblins charge and the adventurers meet the attack. The non-role playing referee regards all goblins as always having it all together. They know exactly where they are, have completely scouted the adventurers, are agreed on their tactics, and always will be the nasty bad guys who attack without warning or mercy. To be blunt, the referee regards the monsters as nothing more than the fantasy equivalent of unthinking, unfeeling cannon fodder to be hurled at the adventurers without any thought about what the monsters themselves want. They are the monsters, right? Everyone knows that monsters always attack first and talk later — provided that they bother to take prisoners.

On the other hand, good character play asks a number of questions

that do not readily occur to the referee who automatically assumes that all monsters are ravening automatons.

First, what are the goblins doing here? They could be a 'patrol' — the usual function of goblins in some fantasy campaigns. But suppose, instead, that they are a lost patrol: lost, bewildered, and terribly hungry because no one in the group knows much about hunting, and they haven't been able to bag so much as a single cottontail since their rations ran out three days ago. They are bitten by mosquitoes, plagued by clouds of black flies, scratched by thorns and brambles, and generally exhausted and fed up from days of wandering aimlessly in circles. Now here they are in a clearing, with two lovely legs of venison roasting over a fire and seven rather tough and well armed men in possession of it. And nobody seems very 'surprised' or overawed, either.

Sure, the goblins might fight. But — just perhaps there is another way. Put yourself in the shoes of the goblin leader. Your men are exhausted and weakened from hunger and the ordeals suffered over the last days. Worse, they are demoralized and beginning to show a serious disrespect for discipline and your leadership — which hasn't been very good of late. Besides, you are just as tired and demoralized, yourself, and you would much rather eat than fight, come to think of it. Even if you fight and win, a good number of the troops are going to end up dead. And your chieftain does not like that, unless there is a good deal of loot involved. This bunch seems fairly well outfitted, but there is no show of obvious wealth. All they have for sure is that pair of lovely legs of roasting venison, and your chief simply won't understand how important and valuable that venison is right now.

Question, Mr. GameMaster: What do you do as the goblin leader? Also, to complicate your decision a little more, pretend for the moment that your goblin leader is the only character you are going to play for the rest of the session. If you lose him, you are out of the action for the rest of the time today. Of course, being GameMaster, that is not really the case. But if you were only a Player, you would likely be facing that possibility. Consider that your reactions are a lot different if you have strictly limited resources, character-wise, than if you have an unlimited supply to fool around with.

That difference is the difference between monsters being people and otherwise just a pack of faceless, mindless sets of gaming statistics to roll dice around! That is also the difference between inspired role playing and mindless dependence upon appearance tables and reaction outcomes.

Maybe — just maybe you can swing a little deal here. Try talking first. It won't hurt. If you get lucky, you might end up with a full belly and avoid a fight. After all, you could always trail the party later and hit them in a proper ambush when your troops have both their spirits and strength up. Or you could use the few minutes spent in parley so that the troops can edge into better position for an attack. For that matter, you wouldn't be in this miserable spot in the first place if Snogg didn't have it in for you and stuck your troop with the rotten missions in the first place! Come to think of it, you and your boys haven't even seen any silver for the last two moons, and that's made this a really raw deal.

'Hey, youse guys, don' shoot! Boy! Is we glad to see youse guys! We been trampin' 'bout these blankety-blank hills for days, now, and we—us—well, we got us kind of lost, you know. Uh, any of youse fellas know the way to Thunder Mountain, huh? Say — is that roast deer you got there? Sure smells good . . .'

It's all up to the PCs now. The Players are going to name the game, not the GameMaster. This is role play — interaction time. The goblins are pretty much in position to make a fight of it, but it might not come to that if the Players are quick on the uptake. Some very strong lines of alternate play have been built into the situation because the GameMaster has settled in his own mind the psychological state of mind prevailing among his monsters. Just about anything can happen, depending on the Players and their own wit in handling the situation.

Let us suppose that the PCs decide to be wary and watchful. They decide that they could probably win the scrap — the goblins do look a sorry sight now that they've had a moment to study them. A little handout might be preferred to a fight, though, because the adventurers still have a long way to go through hostile territory and a truly hair-raising raid to perform at the end. A leg of venison is sacrificed in the interests of studying on the problem a bit longer.

As the ravenous goblins dig into their victuals, one of them is overheard muttering to a companion that 'This be the only good luck we had lately, Goraab. Firs' we gets that new chief and all his stupid blankety-blank rules and spit 'n polish inspections. Then there's no pay comin' for more 'n two moons. We draw day guard duty for a full month just 'caus a few of the guys snuck some beer on that route march. An' finally this here dumb patrol. So what happens? We go and get us lost, that's what! I'm tellin' youse, Goraab, we got no luck at all.

We should've stood at home in bed. Gee, this here deer's real good! Wunner iff'n we can get any more . . .?'

It takes a really stupid bunch of Players not to pick up on the drift of this little conversation. This is a platoon of very irate goblins, ready to chuck their former employment if anyone makes them an offer they can't refuse. Right now, that would come to a handful of silver, regular meals, and a firm promise of a good scrap and loot later on.

This is only one of a core of possible lines of play that can develop. A lot depends upon the GameMaster, though. He has to decide what his 'monsters' are up to in the first place. To a degree, this argues strongly for planned encounters. Randomized encounters have a definite place in role play, but a deliberately pre-arranged encounter can be thought out a bit in advance. The motivations of the monsters can be settled on, and their reactions can be prepared for in advance. This permits the GameMaster to enter into the role playing proper, which is the most enjoyable part of many adventures, after all. Direct interaction between monsters and players also develops the Players skills in this area, so that they do not lapse into that boring habit of drawing weapons and wading into every stranger they meet out of an entrenched feeling of paranoia.

Never forget that monsters are people, too! They have their own personalities and their own personal histories, their own ambitions and fears, weaknesses and strengths, enemies and axes to grind, etc. If these are kept in mind even a little bit, a campaign becomes greatly enriched by often hugely enjoyable role play interactions. The GameMaster, through his characterizations, can cross mental swords with the Players in an entirely different form of 'combat' in which NPC or PC can reasonably and believably turn a situation to advantage. ('I just don't know what went wrong, Farley. That Goraab seemed a real sucker for a game of craps. You think maybe he palmed the dice and switched a pair of loaded ones on me? Naw—he's too stupid for that!')

The guiding principle to follow when gauging the conduct of most NPCs, monsters, and beasts is to decide what you would do if you were such an individual in the same situation. This sometimes requires a bit of careful role playing to get oneself in the proper frame of mind.

Let us consider a pack of savage timber wolves who have encountered a party of three hunters deep in the woods. The men seemed easy prey at first, but those long wooden pointy things the two-legged ones are grasping in their paws are sharp and nasty! Old Growler's down already and bleeding badly. Dear Stalker's clearly dead, and you and several others in the pack have been painfully nicked. Time has come, Grey Leader, to decide whether these two-legged creatures are as tasty as they looked at first. Sure, you're the mighty leader of a strong pack. But a few more minutes of this and you won't have much of a pack to lead.

Wolves aren't at all stupid, and pack leaders are the smartest of a canny breed. A pack leader knows when to cut his losses. There is plenty of easier prey in the forest. So why wait for a morale check? The wolves are bugging out—now!

Why is it that the enemy—whatever it is—in some fantasy campaigns are oblivious to personal danger and keep coming right down to the last man or goblin or wolf or troll or green slug or whatever? The answer is simple. The referee is guilty of not thinking out the reasons behind the NPCs' conduct. The motivations animating the NPC are very important. Such considerations like the ones illustrated above will be totally beyond the ability of any game mechanics to handle properly. No random dice results can be devised to provide appropriate and realistic reactions to ongoing events. A great deal depends upon the GameMaster's personal judgement. By starting with the insight that monsters are people, too, the GameMaster will be more able and willing to climb right inside their skins and see through their eyes. The results are worth it. The very best GameMasters in the business tend to do that as a matter of routine. The result is a gaming session filled with excitement, tension, and laughs.

Best of all, it gives the GameMaster a chance to get in on the fun of role playing which his Players are enjoying.

The development of a rounded personality for an NPC is never more important than in the case of a major NPC who will accompany a party for a considerable period of time, or who will play a major and influential role in determining the course of action for a good portion of the campaign. A powerful wizard who is in opposition to the PCs, for instance, needs to be drawn in some detail — at least in the GameMaster's mind. What kind of a person is he? How does he affect subordinates? How does he lay his plans against foes he clearly regards as inferior worms? Sauron, in the *Lord of the Rings*, is not really encountered until the very end of the trilogy. However, we know him well from the actions of his minions. Orcs under his command, for instance, are petrified with terror of Sauron and his Nazgul lieutenants — so much so that they maintain a rigid discipline even when removed from their direct

scrutiny and supervision. On the other hand, it is clear that the Orcs will be more lax and prone to commit breaches in discipline when their leaders are less powerful.

Taken along another line, the new C&S contains a section on the mental set of Demons. Very powerful Demons will have an arrogance and a sense of power that often blinds them to the chance that a seemingly weak opponent can still stalemate them or even defeat them. This is the fatal weakness, the Achilles Heel, that renders them open to failure. Every NPC, human or otherwise, must have such a fatal flaw, and

it often is related to a quirk of personality. Without role play, such weaknesses become quite irrelevant. Even mighty Demons like Lucifer are people, too! They make mistakes. They can be fooled. They can overreach themselves. They can be corrupted or bought. They can be too clever for their own good. They can be surprised, baffled, shocked, and bewildered when faced by the unexpected. But only if the Game-Master abandons his all-knowing position as referee and descends into the arena to enter into their skins and act as they would likely act in the situation.

Heraldic Arms by Gerald Schiller

Consider how drab and indistinguished several hundred lead figures appear without any paint to add color to their features. Imagine if you will the feudal armies of the first crusade, in which every Knight wore iron chainmail and a conical helm with nasal piece. The effect is about the same, although the iron armor was darker in hue. Unless you got a good look at the face of a particular Knight, you would not know him from another. The same was true of the common troops, clad in undyed cloth or, at best, in clothes of dull brown or green. But take a look at the large kite shields carried by the Knights. There you see color. The one with the red shield and the wide white diagonal across it will certainly be marked apart from his neighbors. Being able to distinguish one man from another on the battlefield is just what heraldry is all about.

EARLY HERALDRY

It is difficult to say exactly when heraldry began. It is fairly clear that armies have been squaring off and fighting one another since the dawn of civilization. From the very beginning, it often proved confusing as to who was fighting on which side. To assist the troops to tell friend from foe, a variety of measures were taken. Troops in a particular unit adopted distinctive helmet shapes, helmet crests, devices painted on their shields, etc. Leaders would don distinctive and colorful armor, robes, etc., and often kept a flag or standard close by to serve as a rallying point for their men. The ancient Greeks developed a considerable number of distinctive devices to be painted on the shields of the various units raised in the different city states. The Romans, with several score legions during the Imperial period, had distinguishing insignia for the shields of each legion, and often variations for sub-units within the legion—as well as distinctive legionary and cohort standards.

As Rome fell, so also did the heavily ornamented shields of the Roman legions. The wooden shields of the Germanic and Scandinavian barbarians are perhaps typical of the Dark Ages. Such shields were wooden, typically with little or no reinforcement of iron or bronze, and thus having a very brief battle life. Any serious ornamentation appears to be a waste of time; the shields would not last long enough under heavy use for the time spent in the painting to be worth it. More important, the units were fairly small—typically clan groups or raiding parties who knew everyone by sight, if not by name. The helmets worn, if any were worn at all, were open-faced conical helms that made personal identification easy. Everyone more or less knew everyone else in the army by sight, and everyone was fairly much visible. Heraldic identification was not particularly necessary.

However, as armor came into widespread use in the late Dark Ages, and as styles of armor tended along similar and not overly distinctive lines, identification became a problem again. By the Norman invasion of England in 1066, Knights and Huscarls wore chainmail hauberts and helms of fairly identical design. It was needful to tell friend from foe, and shields of stouter design were decorated with simple devices to mark individuals.

It was during the hot summer of the First Crusade that men started wearing surcoats over their armor to avoid slow baking alive under the intense Middle Eastern sun. Surcoats were fairly easy to decorate. There also arose a strong need to identify a person at a distance because of the large numbers of men involved in the war.

Most European conflicts tended to be small scale affairs, with a thousand-man army being rather large indeed; everyone knew each other more or less by sight and simply regarded an unfamiliar individual as probably an enemy. The Crusades involved as many as 40,000 to 50,000 troops of all types at times—too many for the 'I know him' technique to be of much use in a mob like that.

Knowing one's leaders and allies by sight was essential in a military system based upon personal service, so heraldry or the decoration of armor, surcoat, shield, and horse soon became an expression of personal

pride, wealth, and position.

With the coming of the Second Crusade, there was a noticeable change in the color of the invading army. More and more nobles and knights were wearing distinctive colors or arms of their family. The Heralds, who did all the liaison work between the various national armies, historically developed a common language that could best be described as pidgin French. It is in this language that all coats of arms were and still are described today. In 1188, the first international agreement on the colors of crosses to be worn by the Crusaders was made. The English would wear a blue cross on white; the French a red cross on white; the Flemish a green cross on white; and so on. These distinctions were not observed too closely, however. The English, for instance, had a red Cross of St. George and often wore it instead. But at least some attempt was being made to establish rules of heraldic identification.

Some rules of heraldry were established at this time. Most notably, the symbol on one's shield was to be recognizable from a distance. A fighter was expected to design his shields as his mark in the world, establishing its reputation with worthy deeds. The son who inherits the device could bask in the light of his father's reputation, and also add to the family honor by performing noteworthy deeds of his own. As the device became more and more identified with a particular family, honor dictated that no other man could bear the same arms.

LATE FEUDAL HERALDRY

From the 13th century onward, more and more rules governing heraldry were made and kept. The distinctive markings on a man's shield were recorded in his family's name and passed on from generation to generation. The markings were called a 'device' or a 'coat of arms'. In effect, ones 'arms' became a calling card or advertisement of a man's name.

In England in 1417, King Henry V decreed that all coats of arms would be issued by him and him alone. Other countries saw similar decrees promulgated. In effect, all these meant that all honor flowed from the sovereign, and only he could say who was a noble and who was not. In 1484, King Richard II of England established the College of Arms, comprised of 13 heralds in whose charge was placed all of the heraldic business of England. By 1638, the College of Arms had established a set of exacting written rules on heraldry which are still applied today. In other nations, similar developments also occurred, and though not all of the rules correspond exactly, there tended to be a uniformity insisted upon in all of the heraldry within a particular nation.

It should be noted that many of the rules of heraldry were not hard and fast in the earlier period and evolved over time. However, the following principles should be followed:

- (1) Each coat of arms should be distinctive from all others.
- (2) There are 7 basic 'colors' and 2 'metals' used in heraldry.

Sable (black)	Gules (red)	Tawny (orange)
Vert (green)	Purple (purple)	Or (gold/yellow)
Azure (blue)	Sanguine (blood)	Argent (silver/white)

(3) Any natural color of an object may also be used, such as the hue of a flower.

(4) Those wishing more elaborate shields might have 'furs' added or borders placed around the edges.

(5) A general rule was evolved that a color should not be placed directly on another color, or a metal on a metal.

A considerably greater amount of detail exists in the rules of heraldry, but for the purpose of painting up the shields of one's favorite figures, these will suffice. If utter authenticity is required, a good textbook on heraldry is in order.

SIMPLE HERALDIC DESIGNS

There are hundreds of different variations on the simple, rather standard designs used in heraldry. To begin with, there is the first color of the field—the major base color of the shield. As noted above, the colors used are black, green, blue, red, purple, blood (a shade of red), and orange. These are all fairly solid, pure colors, as the quality of paints at the time did not make for many pastel shades—although they became more likely later on. Silver and gold might be presented in actual metal leaf on a decorative crest or coat of arms, but a proper battle shield would have these metals represented by yellow and white paint.

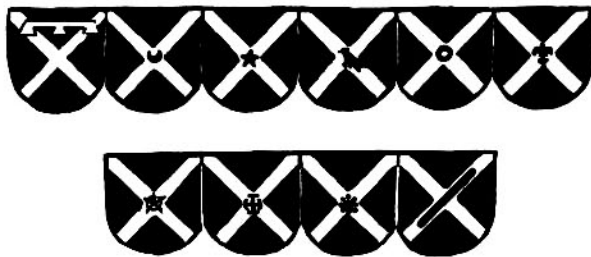
One of the earliest methods of covering a shield so that it would hold together better is through the use of fur pelts. Much later on, the 'furs' were represented by characteristic patterns painted on the shields. It might be noted that this is not a difficult process on a real shield but may prove very painstaking work on a 25mm figure. Ermine is a rare sleet fur (similar to weasel) with smaller darker-colored fur designs or tails attached to it. Vair is a fur similar to that of the common squirrel, represented by a counter bell pattern of blue and yellow or sometimes grey and beige.

The field of the shield can be divided up in a number of ways. Remember, of course, that the simpler the design the earlier it likely existed—one of the measures of the degree of nobility possessed by a family, as the earliest nobles also had the simplest designs. Complexity increased in costs of arms as important families merged, with their arms all being included. But the greatest complexity exists in the arms of the 'Johnnie-come-latelies' in the very late feudal period and following, as all of the simpler designs had been used up. For example, a simple quarterly design can be painted in just 20 ways. As well, the edges used in the lines of division can be drawn a number of different ways, adding more ornamentation to the designs and thus also distinguishing features.

Another way of dividing up the field of a shield was by using the 'Ordinaries', which offer a considerable variety of alternate designs through use of different colors and metals. Some of the Ordinaries may themselves be varied slightly to provide distinctive variations.

Finally, there is the use of the 'Charge'. These are typically animals and objects used as decorations or representations and may be combined with divided fields and ordinaries. Often, the symbols carried special meanings. The lion, for instance, represented courage. On the other hand, Richard II (called the Lionheart), had three lions on his shield which represented the three French provinces he held. The stance of animals and mythical beasts could also be varied—rampant, couchant, regardant, etc.—to add variation to the patterns.

Until a son had distinguished himself sufficiently to earn a coat of arms of his own (the heir often kept his fathers arms as well), he would use the arms of his father with a 'Mark of Cadency'. Upon the death of the father, the heir would become head of the line and removed the mark of his cadet status. Cadency marks are:



1st Son:	Label of the Heir	6th Son:	Fleur-de-Lis
2nd Son:	Crescent	7th Son:	Rose
3rd Son:	Molet	8th Son:	Cross Moline
4th Son:	Martlet	9th Son:	Octofoil
5th Son:	Annulet	Bastard:	Baton Sinister

The first grant of arms received is the 'achievement'—the shield with its basic heraldic design. For Knights and titled Nobles the shield represents the actual arms worn into combat on shield and surcoat. It is a design that will be recognized everywhere as surely as one's own name. The same design, perhaps with some slight distinguishing modification, will also be emblazoned on the surcoats and shields of one's followers to serve as identification that they are their Lord's men—part of that branch of heraldry known as livery.

Subsequent grants of arms may be won by gaining further honors from the sovereign. Each grant of arms brings the following, in order: a helm over the shield (these vary, depending on the nationality); the mantling, a two-color twisted band or device at the top of the helm; the crest surmounting the helm; the motto, written in a scroll at the base of the coat of arms; the supporters, animals or mythical beasts who stand at either side of the shield to support it; the crown or coronet awarded to baronets, barons, earls, counts, dukes, etc.; and finally the princely robe of state, reserved for dukes and royalty.

It should be pointed out, of course, that painting heraldic symbols on your lead miniatures is far easier said than done. Simple designs are perhaps the best—as these can be seen at a distance. Considering the size of a 25mm figure, anything over six or eight inches of viewing range is at a distance.

Remember also that it wasn't until the late feudal period that costs of arms were under the firm control of the King and his College of Arms. In earlier times it was quite possible to meet your very own coat of arms on another's shield. In a fantasy campaign, such a meeting between two characters would certainly give rise to a most unpleasant situation grievously in need of immediate resolution on the field of honor. In the early feudal period, a trial at arms would certainly decide the matter. Later on, in the period of High Chivalry, lengthy court battles might result instead. For instance, around 1350 or so, two Knights with very similar or identical arms would probably resort to official channels to settle the dispute. One might write a letter (with a small gift) requesting the local baron to declare his shield has precedence. Meanwhile, the second Knight might write a letter (with a more substantial gift) to the local Earl to reverse the baron's decision. But the first Knight will likely not take this passively, so he will write to the Seneschal of the Kingdom (with a very substantial gift enclosed) to reverse the Earl's decision. Of course, the second Knight, quite outraged, could appear in the Royal Court to pray that His Majesty intervene in the matter (a huge gift might also be in order). This could be a costly and nasty business.

We recommend the trial at arms, unless a character has clearly received his arms from the sovereign. That's a lot cleaner and usually more fun.

Coats of arms were not universal, but rather national. Thus it is possible for a person to lawfully have arms exactly the same as another person in a different country, who also won his arms lawfully. For instance, the Haye family all held identical arms: Sir de la Haye in Normandy; Haye of Slade in Ireland; and Lord Haye in England.

Coats of arms problems can be used in a role playing game to good effect. When a PC encounters another Knight or Noble, both the PC and the GM roll 1D100. If the dice rolls match, so do the coats of arms. Something must be done about this, and to back down is to lose honor.

Some very famous Knights also concealed their coats of arms and rode as 'blank shields'. In the *Morte d'Arthur* this was done to permit the Knight to indulge in hi-jinks he normally could not get away with, such as taking position at a ford or bridge and demanding that passing knights joust with them. This led to a very tragic contest between Balin and Balan, in which one knight killed his own brother because neither was identifiable. Alternately, some knights were targets of Feys (or Fays) who were infatuated with great knights and tried to ensnare them in deep enchantments to keep them close. Such knights took extraordinary pains to ride incognito as blank shields when undertaking a long journey through potentially dangerous lands.

'Blank Shields' also refers to knights without proper arms—sometimes used as an epithet of derision and contempt. It can also refer to a landless knight or one without any real reputation or family. Finally, it may refer to a knight in mercenary service—an honorable estate for a landless knight, by the way, as he was properly 'in service', even if he held no lands of his own or else was working for board, room, and some spending money. Note that the term 'blank shields' thus refers not so much to someone without a coat of arms, but rather to someone without a real station or reputation.

THE HERALD AS A PLAYER CHARACTER

Finally, we come to the character of the herald himself. A herald is similar to an adventurer when it comes to overall experience, and in his own way he can be far more dangerous. Having a good memory and voice are important for this job, as well as being able to read and write. In a sense, the herald is the King's Public Relations Officer. His job description is something like the following:

(1) Reading important public announcements to the populace—which may prove dangerous when one considers how unpopular some measures may be with the general population.

(2) Arranging public ceremonies, tournaments, and the like.

(3) Serving as an official secretary to His Majesty.

(4) Acting as an official witness and record-keeper on all matters chivalric. For instance, heralds kept records on who was knighted and by whom, date of knighthood, etc., for each district.

(5) Acting as military historian and war 'correspondent' during important campaigns. Heralds would take station on a nearby hillside or other vantage point to oversee the battle, making mental notes on who was brave or cowardly on the field. A report would be dispatched to the King. On some occasions, the heralds would also travel a circuit around the country to tell the war news to the populace. Of course, this function might also be performed by minstrels or mummers who would sing of the events of the wars.

(6) Acting as the feudal equivalent of the Red Cross in its protective function as arbiter/referee of the Geneva Convention. Wars were supposed to be fought according to the Code of Chivalry, and heralds were allowed to visit enemy camps to see the prisoners of war and, without escort, to speak with them in private. The herald could verify the noble status of any prisoner who wished to be treated according to his rank. (He would also keep silent when a prisoner didn't want his real identity revealed, for fear of reprisal in situations where a lot of bad blood lay between the prisoner and his captors—if they knew his identity). Of course, the herald would arrange for the transfer of ransoms, etc.

(7) Acting as authorities on matters of honor and chivalric custom. The herald would, for example, stand next to his Lord's banner and, if his Lord had lost the battle, it was the herald's duty to see that the banner was surrendered to the 'proper' personages. The herald is expected to deliver messages to the enemy camp and to arrange for parleys. While inside the enemy camp, the herald was duty-bound not to take note of the enemy defenses or preparations, numbers of troops, etc. If he did see anything of import, he was honor bound not to speak of it. After a battle, the heralds would count casualties and even declare who had 'won' or 'lost' the engagement when the outcome was unclear. At the height of the chivalric period, the heralds would also negotiate the site upon which a battle would be fought, the time it would start, etc. This was an interesting economic measure often adopted to prevent unnecessary destruction of property—castles, villages, crops, etc. At times, 'war' resembled a scheduled sporting event as far as the nobility were concerned.

(8) Finally, and perhaps most significant, the herald will not, in the name of honor, bear arms or wear armor besides a chainmail shirt under his tabard (surcoat). He is essentially a non-combatant, and his personal safety was almost always respected because his services were essential to a properly run feudal military campaign. The herald wears the bright and colorful arms of his Lord, who is not necessarily the King. It was a universal convention of feudal warfare that the heralds would be unmolested throughout a battle, and his bright costume marked him clearly as a 'no hit' target. Nevertheless, accidents could happen, and his hidden chainmail served to protect him from stray arrows.

A herald enjoyed the confidence of his Lord, and this could make him an object of envy and suspicion. Knights might wonder if their 'valiant' deeds had been witnessed and properly recorded. Others might

wonder if the Lord's/King's decisions are being unduly influenced by the herald(s) who stand close to his side. Any why, still others would ask, should a man who is not a fighter be given a title and lands for having a glib tongue and a good memory? And, in his role as the diplomatic representative of his Lord in the land of his enemies, the herald could easily be suspected of spying—no matter what honor demanded. It could prove a very dangerous job when bad news had to be delivered or an implacable demand was to be made in the name of the herald's lord. No one likes bad news or harsh ultimatums, and heralds sometimes died for it, no matter if the Code called for the inviolability of their persons.

Here are a few ideas for permitting herald characters to function in a fantasy campaign:

First, because of the nature of fantasy worlds, permit the herald to be armed and able to use weapons when not acting officially in his heraldic capacity. He could also be allowed to wear full armor. This is not, strictly speaking, historic. But it is a realistic concession to the realities of most fantasy campaigns.

Next, for a little excitement, a herald may be given the potentially hazardous mission of travelling across the land to the various towns and villages to publish (read) an unpopular decree—such as a massive increase in taxes. That there is a portion of the countryside which is especially dangerous to travel over at any time could add to the general adventurousness of the situation.

Alternately, one's Lord might decide he no longer wishes to be a vassal of the King and is going to declare for a rival. Honor unfortunately demands a formal declaration of war. The herald and his escort must ride across a hostile region into the very heart of the King's power and, in the central square of the capital, sound their trumpets and read the declaration of war. The popularity of the herald and his escort will likely not be too high with His Majesty when he hears of this 'presumption', so the herald should post his proclamation on the main doors of the nearest public building and then lead a quick retirement to his Lord—who is now probably well on his way to the capital at the head of his army.

In a fantasy campaign, the social monsters would also be quite inclined to go along with the Code-respecting the herald as the representative of the other side in any parleys. If the monsters are treated as thinking individuals in their own right, they would recognize the necessity of having to negotiate or, at least, to exchange demands and threats. An embassy to the court of the Goblin King could prove to be a very 'interesting' mission for the herald and his companions.

Any further inquiries concerning heraldry in a fantasy campaign can be addressed care of Fantasy Games Unlimited, to

Gerald Louis Joseph Schiller

Sustaining Member of the Society for Creative Anachronism as:

Alphonse de Lorraine, Award of Arms,

Member of the An Tir College of Heralds, Pursuivant Extraordinary

Shield device as of August 22 MCMLXXXVII (1982)

Azure (blue) on a pile indented throughout sable (black).
fimbriated argent (silver), a lion rampant and in cantons
fleur-de-lis Or (gold).

Physicians, Wounds, & Diseases

by Edward E. Simbalist.

PHYSICIANS:

Physicians are usually non-fighters. PCs qualify for this class if they are born into any of the professional Guilds or else are Monks, Shaman, or Alchemist-Physicians.

Initially, a Physician advances in skill in a manner similar to Alchemists, for he must master certain basic knowledge and skills before he can rise to a higher experience level. Once basic skills are mastered, further progress is made by acquiring experience by performing diagnosis, treatment, and the like.

Basic prerequisites for Physicians are: IQ/12+, Wis/12+, Dex/12+. The Medical Ability of the Physician is found by adding these three scores and dividing the total by 3. Medical Ability will determine his learning speed (subtract 1 day per Med.Ab. point) and affects his chance of successfully treating the afflictions of his patients.



Exper Level	Medical Art	Time to Learn	Exper. Points ^a	Experience/Treatment ^b
1	Staunch Wounds	30 days	500	10 +1/exper. lvl. x 1D6
1	Treat for Shock	30 days	500	10 +1/exper. lvl. x 1D6
1	Sew Up Wounds	30 days	500	10 +1/exper. lvl. x 1D6
1	Treat Burns	60 days	1000	10 +1/exper. lvl. x 1D6
2	Basic Anatomy	90 days	1500	—
2	Relieving Pain	60 days	1000	10 +1/exper. lvl. x 1D6
3	Probing Wounds	30 days	500	20 +1/exper. lvl. x 1D6
3	Setting Bones	60 days	2000	10 +1/exper. lvl. x 1D10
3	Extract Teeth	30 days	500	10 +1/exper. lvl. x 1D6
3	Cauterize Wounds	60 days	2000	25 +1/exper. lvl. x 1D10
4	Chirurgery	120days	7500	50 +5/exper. lvl. x 1D10
4	Salves & Ointments	60 days	2500	10 +1/exper. lvl. x 1D6
4	Cordials & Elixirs	60 days	5000	10 +1/exper. lvl. per body or fatigue point restored.

DIAGNOSE/TREAT:

5	Common Cold	20 days	2000	—
5	Dysentery	30 days	3000	20 +1/exper. lvl. x 1D10
5	Rashes & Itches	30 days	3000	10 +1/exper. lvl. x 1D6
5	Pneumonia	30 days	3000	20 +1/exper. lvl. x 1D10
5	Recurrent Fever	30 days	3000	20 +1/exper. lvl. x 1D10
5	Chicken Pox	30 days	3000	10 +1/exper. lvl. x 1D10
5	Tuberculosis	30 days	3000	50 +5/exper. lvl. per week
5	Leprosy	60 days	5000	100 +5/exper. lvl. per week
6	Leprosy of the Tomb	60 days	6000	250 +5/exper. lvl. x 20+1D20
6	Malaria	30 days	3000	20 +1/exper. lvl. x 1D10
6	Small Pox	30 days	3000	50 +3/exper. lvl. x 10+1D10
6	Typhoid Fever	30 days	3000	50 +3/exper. lvl. x 10+1D10
6	Typhus	30 days	3000	50 +4/exper. lvl. x 10+1D10
6	Cholera	30 days	3000	50 +5/exper. lvl. x 10+1D10
6	Bubonic Plague	30 days	4000	75 +5/exper. lvl. x 10+2D10
7	Treat Paralysis	120days	10,000	200 +5/exper. lvl. x 10+1D10
7	Poisons & Antidote	180days	15,000	100 +5/exper. lvl. x 1D20

(a) Experience bonus received for learning the Medical Art. It is also the cost in e.p. for any non-physician/chirurgeon who wishes to learn the art (no more than 1 skill per exper. lvl.). To pass the test given by the Physician under whom the PC is studying, a percentage chance of success is found by multiplying the PC's Med. Ab. x 5. Failure results in a further 10 days' study x exper. lvl. of the medical art, followed by another test —5% per failure. Four failures prevents further study, but the PC does acquire the skill at ½ success chances when performing treatment/diagnosis, and experience points are awarded.

(b) Once the Physician/Chirurgeon has mastered a Medical Art, he can practice it. Experience is awarded for successful treatment during the Exper/1-7 learning period, but the e.p. gained are recorded on the side. When the Physician attains Exper/8, these treatment points are added to his total e.p. All advancement from Exper/8 onward is based solely upon the practice of medicine, and no experience is awarded for other activities.

In the case of mixed characters who follow some other vocation besides medicine, medical experience is awarded at ½ full values and the learning period is doubled. However, note that Shaman and Alchemists do function in a quasi-medical mode in some cases and thus can be exempted from this rule.

Since few PCs will have a significant number of player character or NPC patients, assume that a practicing Physician or Chirurgeon will receive 10 e.p. x current Exper. lvl. on an average day—provided that the Physician is in a place that would bring in patients daily (such as a town). The GameMaster can adjust the 10 e.p. base downward to reflect the situation. During wartime, Physicians and Chirurgeons attending during sieges or in a field army could easily have double the standard experience. Plagues can triple the average daily experience available.

Shaman and Alchemist-Physicians acquire their Medical Arts at the same time they advance in their Magical Arts, but only if they are Well Aspected. Neutral or Poor Aspects require additional time in learning the medical skills, and double entries must be kept to show experience from Magical studies and works and experience from Medical Practice. In short, the experience from Magical activities will not apply to medical proficiency and vice versa. PCs who are not in a medical vocation must pay the e.p. required for the skill and then keep double entries, with only medical practice experience applying to the level of proficiency with the skill.

CHIRURGEONS:

Chirurgeons advance in the same way as indicated for the Physician, but they complete their training once they acquire Chirurgery in Exper./4. At that point, further advancement is based upon the practice

of his chirurgical arts. His average day's experience is 5 e.p. x Exper. lvl., subject to the situation and the likelihood of having patients.

Traditionally, Chirurgeons in a feudal society were also Barbers. They had little real standing or status in the medical fraternity. Fighters and other character classes can also learn the skills. As in the case of Physicians, PCs who follow a vocation other than Chirurgery/Barbering receive treatment e.p. at ½ values and can apply only their medical e.p. when determining Chirurgical proficiency. These e.p. are recorded separately and are applied only for this purpose.

THE MEDICAL ARTS

In actual fact, the medicine practiced in pre-scientific times was often a mixture of reasonably effective procedures, folk remedies, and plain mumbo-jumbo and superstitious ignorance. Often, the cure had little to do with the recovery of the patient, and a success was often the result of natural causes. But the Physician would receive credit if the patient lived and recovered, even if the procedure in fact had no genuine medical value. The following procedures reflect this hit or miss quality of early medicine, plus the chance that a truly successful medical practitioner would learn a few effective techniques of dealing with injury and disease as his experience increased.

STAUNCHING WOUNDS:

The prevention of blood-loss by applying packings and bandages to the damaged tissues. Staunching is effective against minor and moderate bleeding, but chances are reduced —10% against any uncontrolled bleeding. Percentage chance of success = 20% + Med. Ab. +3% per

Exper. lvl. to a maximum of 90%. Non-physician/chirurgeons = 20% + 3% per Exper. lvl. obtained in medical practice.

TREATING FOR SHOCK:

Keeping the patient warm and administering cordials such as brandy to prevent withdrawal of the blood to the body cavity, unconsciousness, coma, and eventual death. If shock occurs, percentage chance of success = 20% + Med. Ab. + 4% per Exper. lvl. to a maximum of 90%. Non-physicians/chirurgeons = 20% + 3% per Exper. lvl. obtained in medical practice. Physicians only can also prepare special cordials equivalent to 'Water of Life' to restore body levels slightly to counteract bleeding. Such cordials can be prepared at a rate of 1 dose per day, using the Magic Materials List, but no more than 5 doses per medical experience level of the Physician will be on hand at any one time, unless he has thought to augment his stocks with purchases from other Physicians, etc.

SEWING UP WOUNDS:

The prevention of serious loss of blood due to uncontrolled bleeding or body damage exceeding 50% (from wounds). Percentage chance of success = 30% + Med. Ab. + 3% per Exper. lvl. to a maximum of 90%. Non-Physicians/Chirurgeons = 30% + 3% per Exper. lvl. obtained in medical practice.

TREATING BURNS:

Equivalent to treating to prevent shock plus the proper dressing of wounds, this skill wards off the chance of burn shock and infection. Percentage chance of success = 100% — the percentage damage of damage to the body from fire + Med. Ab. + 2% per Exper. lvl. Non-Physicians/Chirurgeons have ½ the chance, and Med. Ab. is not counted in. The same chance applies to prevention of burn scars. Scars which are in a visible place will produce a —1 App score reduction per 10% of damage done to the body. Failure to treat burns effectively will call for a septicemia check if over 20% of the body.

BASIC ANATOMY:

The knowledge of the human body sufficient to prevent bleeding temporarily through applying pressure to appropriate points (effective only if limbs are bleeding). Basic Anatomy also adds a 1D10% success bonus to Chirurgical procedures. If desired, it can also be a measure of Midwifery skills, permitting the possessor to aid in the successful delivery of babies with a flat 95% chance of success (failures are due to untoward complications beyond the medical skills of the age).

RELIEVING PAIN:

The knowledge of how to prepare and prescribe painkilling powders and potions, and also of sleeping powders and potions. Percentage chance = 35% + Med. Ab. + 4% per level to a maximum of 95%. Only Physicians, Alchemists, and Shaman types can prepare such items, but Chirurgeons and even non-medical types can learn how to administer them. Incorrect dosages have a 01-65% chance of simply not working, though grogginess may result from sleeping powders and potions (all physical and mental abilities may be reduced by —10% to —50% of normal levels for a time). There is a 66-100% chance that incorrect dosages will produce a comatose condition for 6.D6 hours, with death possible if a Con CR (taken hourly) fails if over 27 hours. Physicians can prepare 5-10 doses of an opiate or White Lotus powder in 30 days — Med. Ab. One dose will relieve pain in a human-sized being for 8 hours, while two doses will render such a patient unconscious for 5.D20 turns (25-500 minutes). Other preparations can be developed by the Physician-Player and GameMaster, in consultation about the nature of the ingredients, the effects, duration, etc.

PROBING WOUNDS:

The finding and extraction of foreign objects, such as spear or arrow points, from a wound. Percentage chance = 15% + Med. Ab. + 5% per Exper. lvl. to a maximum of 95%. On failure, there is a 30% chance — Med. Ab. — 2% per Exper. lvl. of striking a vein or artery, producing uncontrolled bleeding. Non-Physicians/Chirurgeons = 15% chance + 4% per Exper. lvl. obtained in medical practice, with a 30% chance of uncontrolled bleeding. (After all, anyone can pull a shaft from a wound, but . . .)

SETTING BONES:

Diagnosing the nature of the break and setting the bones properly for splinting and mending. Percentage chance = 20% + Med. Ab. + 4% per Exper. lvl. to a maximum of 90%. Non-Physicians/Chirurgeons = 20% chance + 3% per Exper. lvl. obtained in medical practice. Failure to set bones properly (the check is made after the bone has healed) results in 5.D6% impairment of the affected limb, which is assessed

against fighting ability, movement, and/or carrying capacity, as applicable. The bone can be rebroken and reset if it heals poorly. Physicians can use 'boneset' or some other folk preparation to improve the chance of proper healing by 1D10%. The skill also includes the ability to bind up cracked ribs, etc., so that the danger of puncturing a lung, etc., is removed (automatic success).

TOOTH EXTRACTION:

Pulling decayed or painfully broken teeth. Percentage chance = 40% + Med. Ability + 2% per Exper. lvl. to a maximum of 95%. Non-Physicians/Chirurgeons = 20% chance + 2% per Exper. lvl. obtained in medical practice. Failure to extract cleanly brings an 01-65% chance of the patient losing the wrong tooth (unless the problem is visibly obvious) and a 66-100% chance of a broken tooth, necessitating Chirurgery and Probing to remove the roots. In the meantime, the patient will be in extreme pain.

CAUTERIZING WOUNDS:

Searing a wound with heated irons or fire or hot pitch to prevent uncontrolled bleeding. This procedure is used when sewing is inconvenient or impossible (as in the case of an arm amputated during a melee) and/or when time is at a premium. It is also used to burn out infection. Percentage chance of preventing uncontrolled bleeding = 40% + Med. Ab. + 3% per Exper. lvl. Percentage chance of burning out a localized infection = 20% + Med. Ab. Percentage chance of Shock = 25% — Med. Ab. — 1% per Exper. lvl. Chance of scarring = 50% — Med. Ab., with 1D6 App points lost if in an exposed feature considered important to one's attractiveness. Non-Physicians/Chirurgeons with the skill have ½ standard chances. A total inept has a ½ minimum chance, but with a 50% chance of shock and scarring.

CHIRURGERY:

A variety of procedures, usually involving skill with some form of scalpel. Boils can be lanced. Amputations of extremities (toes, fingers) can be performed without complication. Probing Wounds has a +1D10% chance of success bonus. Various growths can be removed with a 90% chance of success. Finally, and most important, amputations can be performed with a percentage chance = 20% + Med. Ab. + 3% per Exper. lvl. Non-Physician/Chirurgeons have ½ standard chances. Failure by Physician/Chirurgeons results in uncontrolled bleeding. Failure by others results in uncontrolled bleeding and shock. The skill also can be used to determine the effects of a deliberate bleeding of the patient to let out the bad humours. A scalpel or leeches can be used, with 1D6 body points of blood let by the former and ½D6 by the latter. Bleeding improves chances of survival from a variety of ailments by 1D6%, but has no effect in any situation involving blood loss. (In the last case, it can worsen the situation, but it might be applied anyway because the medical doctrine of the time called for it).

SALVES & OINTMENTS:

The preparation and prescription of various topical unguents to relieve skin irritations, swellings, and rashes. The Physician will require 21 different Magical Materials (unenchanting and in any kind of combination) to produce 10+1D10 doses. From 1-3 doses will be applied per day until the prescription is exhausted. Percentage chance of success = 3 x Med. Ab. of Physician. As an alternative, players may make up actual folk remedies (these can be found in books on herbology and folk medicine).

CORDIALS & ELIXIRS:

The preparation and prescription of 22 different remedies for various common ailments. Each contains 7 Magical Materials (unenchanting and in any combination) to produce 10+1D10 doses. These cordials and elixirs will increase recovery chances by 1D10%, provided the prescription is followed to the letter. Players can refer to actual folk remedies as well as make up their own wild concoctions. Revolting mixtures of ingredients are quite acceptable, as medicine was often expected to smell/taste/look bad and patients are reassured they are receiving the best treatment. Once a remedy has been formulated for a particular ailment or affliction, the 1D10% bonus is determined and remains thereafter constant. A prescription will have an effect on 1 or 2 diseases/ailments/afflictions which must be stipulated before the effectiveness is determined.

When a Physician attains Exper/10, he may enchant an elixir or cordial which has the same effect as a Cleric's Cure Minor Wounds, with a 75% success chance. For the purpose of making such a preparation, treat the Physician as a neutrally aspected Mage with MKL/10. Seven Magical Materials of common type are required, and 4+1D6 doses result.

At Exper/15, the Physician may enchant a cure for each of the com-

mon diseases which has a 75% chance of effecting a full recovery once the disease runs its course (rolled first; if it fails, make the standard recovery roll). It requires 21 Magical Materials of some rarity and great cost to produce 4+1D6 doses. At Exper/19, a similar preparation may be prepared to Cure serious wounds. Again, treat the Physician as a neutrally aspected Mage with MKL/10 for enchantment purposes.

Note: An Alchemist-Physician may function at his personal aspect and MKL when preparing the advanced elixirs and cordials.

DIAGNOSIS & TREATMENT:

Until a Physician has studied a disease to learn its symptoms and also the recommended procedures of treating it, he will have a chance = 20% + Med. Ab. of properly diagnosing the ailment and arriving at a regimen of treatment. In most instances, he would probably guess the right disease, but he would likely fail to prescribe properly, and natural recovery would apply. Once the disease has been studied, the curative bonuses given under the various diseases can be applied automatically. At least one treatment must be given per week the disease lasts for the Physician to be effective.

TREATMENT OF PARALYSIS:

Paralysis resulting from grievous wounds or touching by various monsters, etc., is relatively incurable by any means. Allow a flat 25% chance of a cure per month + Con of the victim, whether attended by a Physician or a Cleric. Each failure reduces success chances by -5% (cumulative). Natural recovery is equal to the Con score of the victim, expressed as a percentage and checked monthly.

POISONS & ANTIDOTES:

See *Chivalry & Sorcery* for the types of poisons and antidotes listed in the Thieves Skills. A Physician has the same skills once he learns about the basic poisons and their counteractants.

THE TIME ELEMENT

When treating various afflictions and disorders, a considerable period of time may pass. Some procedures are particularly important, time-wise. The following treatment periods should be carefully considered:

Staunching Wounds	.3D6 min. (-50% of time for Dex/15+).
Treatment for Shock	.2D6 min.
Sewing Up Wounds	.2 min. per 10% body damage (-50% for Dex/15+).
Treating Burns	.1 min. per 1% body damage (-50% for Dex/15+).
Relieving Pain	.1 min. (prescribe/administer powder/potion)
Probing Wounds	.2D6 min. (-50% for Dex/16+).
Setting Bones	.6D6 min. (-50% for Dex/16+).
Extracting Teeth	.2D6 min. (-50% for Dex/16+).
Cauterizing Wounds	.1D6 min.
Chirurgery	Highly variable, depending upon the procedure, but usually 5-60 minutes. Lancing, etc., is usually under 10 min.; amputation is 15-60 min. Time can be reduced by -50% for Dex/16+.
Salves, Ointments	.1 min. (prescribe/administer remedy).
Cordials, Elixirs	.1 min. (prescribe/administer remedy).
Diagnosis	.21 min. - Med. Ab. But if more than one Physician is present, add 20D10% of 21 min. for consultation and argument.

CLERICS & MIRACULOUS CURES

With the introduction of Medical Arts into a campaign, the GameMaster may wish to modify the basic curative powers enjoyed by Clerics so that they are more in line with those of the medical profession. That is, Cures would be used to ward off Shock and to restore lost blood, or else to increase body and stamina levels to a more desirable condition; but they will not stop bleeding, remove imbedded weapons, mend bones, permanently close wounds, and the like. Cure Disease would merely reduce the chance of death but would not entirely eliminate it, and recovery and recuperation would still be necessary. Cure Grievous Wounds would aid a person to stay more or less in one piece when bones are broken or deep wounds have been sustained, but a normal recovery period would still be required for a permanent 'cure'. In short, 'miracles' can stave off each death but cannot replace the Physician or Chirurgeon, who must patch up the mangled bodies.

WOUNDS & BROKEN BONES

Chivalry & Sorcery combat systems provide for a variety of injuries resulting from critical hits. These critical damage results can be used as a basis for subsequent treatment by a physician once the combat is ended or the victim can be dragged aside for first aid. The GameMaster may also decree certain types of injury in cases where no criticals have been suffered but extensive damage to the body has been sustained by a PC or NPC. (This gives an air of realism to the action, as well as something for the Physician to do).

PAIN (OPTIONAL)

PCs and NPCs alike can be subjected to pain for several reasons. The most obvious cause is damage to the body, but neurological ailments (headaches, etc.), toothaches, and certain types of disease may also produce pain.

A character's basic resistance to pain is expressed as a Pain Threshold. The Pain Threshold is equal to a percentage equal to 2 x Con plus Str.

For example, a PC has Con/18 and Str/12. His Pain Threshold is $(2 \times 18) + 12 = 50\%$. Any time he sustains damage to the body exceeding 68% of his body points, he must roll a Con CR each turn to continue functioning at normal levels.

If a PC fails to withstand pain by rolling his Con CR, he loses 1% efficiency for each 1% that his body damage exceeds his Pain Threshold level. For example, if he has a PT of 50% and has sustained 81% body damage, he will suffer a -31% loss to his physical and mental capacities, and such things as hit probabilities, parries, dodges, WDF, carrying capacity, movement, magical targeting, remembering, etc., will be at 69% normal levels.

Special cases such as toothache or serious critical hits will require immediate Con CRs to determine whether the pain is simply too much to bear and still maintain efficiency. For instance, a grievous chest wound might fall below the Pain Threshold percentage, but it would cause severe pain and thus require a Con CR when it is sustained. If the PC passes the Con CR, he can continue on without fear for the moment that the pain will cause incapacitation (he has successfully blocked the pain until the emergency is clearly over).

Pain will affect efficiency levels until the damage falls below the PT levels due either to natural or miraculous healing. Some sources of pain, like toothaches, must be eliminated before pain is no longer felt, and regular Con CRs will be required in such chronic cases to stand the pain.

A pain-killing drug can increase the PT level by 5D6% and has a duration of 5-30 full game turns. Alternatively, it can increase the Con CR by +3 (max. CR = 19). No more than one pain-killing preparation can be taken safely in a 30-turn period.

Superhumans with Str/20 and Berserks are unaffected by pain until body damage exceeds 90%. But they will be affected by 'annoying' and persistent pain, like that of toothaches. Also, when berserk, a PC is unaffected by any form of pain until the berserker fury wears off.

Toothache can occur as a result of a blow to the face (broken or chipped tooth) or from dental cavities. Tooth decay has a 15% chance of occurring every 1D6 months, minus the PC's disease resistance. The only known cure is to pull the offending tooth. Toothache is equivalent to 10%+1D10% pain reduction in efficiency and will produce attacks of 1D6 hours duration, with 1-4 attacks per day!

Pain is considered optional because it does require extra work and may interfere with routine gaming. It may also be 'inconvenient' in combat situations. However, it does add an element of realism to a campaign and proves to be an interesting factor in a strongly role-played campaign.

BLEEDING

There are three classes of bleeding:

SLIGHT BLEEDING:

More unsightly than dangerous, slight bleeding will not result in a significant loss of blood or strength until the body is over 51% damage, at which point it is considered to be Moderate Bleeding. Slight Bleeding results in 1 body point in lost blood every 10 minutes. It will be readily stopped by natural clotting (Con CR-3) or by bandaging, and once staunched will not recur.

MODERATE BLEEDING:

There is an 01-50% chance that ½D6 points of blood will be lost from the body every 5 minutes if the bleeding is not staunched. If the body is at 51% damage, Moderate Bleeding will become Uncontrolled if a Con CR-3 is failed (taken every 5 minutes until the wound is staunched/cauterized/bandaged).

UNCONTROLLED BLEEDING:

An artery or vein has been severed, or else a fairly massive wound has been sustained, so that 1D6 points of blood is being lost from the body every 1D6 minutes! Check for Shock. Such a condition is clearly threatening to be fatal unless attended to quickly.

SHOCK

Shock is the retreat of the body's remaining blood supply to the central trunk. Shock can result whenever the body sustains over 20% burn damage or has suffered severe injury or uncontrolled bleeding. The chance of Shock is a percentage equal to the percentage of body damage suffered minus the Con score of the victim. For example, a PC with Con 17 has suffered 55% damage to the body and has a $55 - 17 = 38\%$ chance of Shock. If Shock sets in, a Con CR must be rolled each turn to withstand its effects. Shock takes from 3 to 8 turns to take effect (15-40 minutes) after the injury, and a failed CR will result in the complete incapacitation of the victim. Unless a victim who has succumbed to Shock is kept warm and given treatment, there is a 50% chance minus Con score that he will die. This is checked hourly for 2-12 hours. Treatment by a Physician or Chirurgeon will significantly reduce this probability by -2% per Exper. lvl. of the medical attendant if Shock has set in.

If treatment is given prior to the onset of Shock, it will be prevented entirely.

SEVERE WOUNDS

Subject to the severe penalties for bleeding and shock (see above), severe wounds and reduction of the body levels can grievously impair a PC's or NPC's efficiency. Such penalties should properly be assessed after the completion of a combat situation, when the fighting heat has waned somewhat and the extent of the damage really begins to be apparent.

DEATH

Death is not automatic in *Chivalry & Sorcery*. When body levels reach zero, a PC becomes unconscious. Bleeding will further reduce this level to minus values. The PC's capacity to resist death is found by adding 5% of his weight to $\frac{1}{2}$ his Con score. For example, a PC of 250 dr. with Con/15 has a blood loss capacity of $-12.5 + -7.5 = -20$. He can lose 20 points of blood below zero levels before he dies.

When a PC is reduced to zero or negative body levels, he will continue to decline by -1 or -2 points every 5-10 minutes if he fails a Con CR, even if there is no bleeding. If there is bleeding, the bleeding rate is substituted for the -1 or -2 point decline noted above. Medical attention will thus be required to prevent death. Wounds can be bound up and cordials administered. Clerics can assist by raising negative levels to zero or positive levels.

Once a Physician or Chirurgeon has 'stabilized' body decline, natural healing rates begin to apply and will restore a victim to positive levels with time.

RE-OPENING WOUNDS (OPTIONAL)

Characters who have been bandaged, sewn up, or splinted will risk tearing open their wounds if they involve themselves in any violent or strenuous activity — like fighting, running, or carrying heavy burdens. Risk of opening wounds exists until the body has been restored to 75% of normal levels.

To determine the risk of re-opening wounds, find the percentage of the body remaining, add 2x Con score, and subtract from 100. This is the percentage chance of re-opening the wound. As healing from natural or clerical causes raises the body level, the risk is reduced.

For example, a PC has a body of 27 and a Con/15. He suffers 22 points of damage, leaving him with $5/27$ or 19% of his body level. Further suppose that a Cleric effected a Minor Cure of 5 points, while a Physician staunched the wounds and bandaged him up. The PC's body, now at $10/27$ or 37%, has $100 - 37 - (15 \times 2) = 33\%$ chance of being torn open by violent activity.

This is fairly realistic, as no one can walk around with gashes in his side and hope to get away with anything except moderate activity. Sewing up wounds can reduce the chance of tearing something open by a further -10%. At the same time, some book work is required to apply this rule, and so it is optional and should not be used if players and the GameMaster desire a fast-paced and relatively unencumbered game.

If a wound re-opens, there is an 01-33% chance of slight bleeding, a 34-67% chance of moderate bleeding, and a 68-100% chance of uncontrolled bleeding. If desired, a Con CR can be rolled and, if successful, will reduce the bleeding by one level. In that case, a slight bleeding will be at the rate of 1 point per 10 minutes.

Broken bones can be treated differently. A fall would carry a chance of further breaking equal to the risk of re-opening wounds if the PC

fails a Dex CR (to cushion the impact). Such an effect would take effect the moment it occurs. A similar effect would result if the broken bones were struck by a weapon, only with a Con CR required to avoid the rebreaking or further damage.

PLAGUES & DISEASES (OPTIONAL)

During the feudal period, the dreaded cry of 'Plague!' put more sheer terror in the hearts of men than did any army — and with good reason. Disease has slain more people than has any war, and the feudal period saw numerous epidemics decimate entire populations, leaving nations economically and militarily bankrupt and wasted. The following optional rules permit the recreation of the effects of outbreaks of plague and disease both on a national and an individual level. The GameMaster is warned that rigorous application of the rules might lead to a highly realistic but perhaps somewhat undesirable simulation of the actual state of affairs. He therefore always has the right to modify and reduce the overall effects of plague outbreaks, both with regard to frequency and intensity.

Several terms will be used throughout this section:

EPIDEMICS are highly contagious diseases that spread through the entire population. They occur only under special conditions:

In any given year, there is up to a 10% chance that an epidemic will break out in some region, especially a center of population. The more unsanitary the conditions, the worse the personal hygiene of the populace, and the higher the frequency of trade, the greater the likelihood of plague. Also, times of famine and/or war may produce conditions favorable to plague outbreaks. Check once per 250,000 townsmen in the nation. The time of year the plague breaks out can be decided randomly by rolling 1D6: 1-3 = January-June; 4-6 = July-December. Then roll 1D6 again to find the month. Note that some plagues will not occur in certain seasons, in which case a plague is impossible and a reprieve is gained.

During war, unsanitary conditions caused by overcrowding during protracted sieges (over 60 days) or by large concentrations of troops may act to produce plague conditions. Besieged castles and towns have a 10% chance + 1% per 2000 in the fortress of a plague breaking out each week the siege lasts beyond 60 days. If a plague breaks out, the besieging army has to immediately disengage or run the risk of the plague spreading to its numbers (10% + 1% per week it remains). Armies much over 10,000 men may contract the plague if concentrated for more than 60 days at a time, with a 10% chance + 1% per week over 60 days.

NON-EPIDEMIC DISEASES can occur when the GameMaster decides that the conditions for such diseases are present during an adventure. Such diseases affect individuals rather than whole populations.

VECTORS are the sources or conditions under which a disease begins.

INFECTION is the percentage chance that an individual will contract the disease.

SURVIVAL is the percentage chance that an individual will recover from the disease if he contracts it. The percentage is modified by the bonuses/penalties for disease resistance given in C&S for Constitution.

INCUBATION is the period of time required for the symptoms to appear after exposure.

DURATION is the period of time that a victim will suffer from the worst ravages of the disease.

DEATH RATE is the number of deaths that will occur in a population during an epidemic, expressed as a percentage dead per week.

CURE is the effect of clerical acts. Cure Disease cannot be used arbitrarily, however, for no Cure can be attempted until a person has actually contracted the disease and the symptoms are present. Further, a Cure will not completely eliminate the disease, but merely increases the survival chances of the victim. Successful medical procedures approximate the effects of Cure Disease.

INCAPACITATION is the degree to which a disease victim is reduced in physical and perhaps also in mental powers during the illness and during recuperation.

RECUPERATION is the recovery period needed to restore the disease victim to his full powers, once survival is assured.

EPIDEMICS

When determining the point of outbreak of an epidemic or plague, all towns in a nation should be assigned a number. For instance, if there were 27 towns, divide them into three groups of ten (or part thereof). A dice roll can be made to determine the target group, and then a second roll to find the point of outbreak. In the case of sieges or oversized armies, the location is already known.

The following epidemic diseases may occur if the conditions are 'right'. Bubonic plague, cholera, and typhus cannot occur between the months of November and March because the cold eliminates the insect

vectors. The other epidemics are possible in any season. Roll 1D10, with the result indicating the disease with the corresponding bracketed number:

Bubonic Plague/Black Death (1):

Epidemic, lasting 2 + 1D10 weeks before disappearing. Death Rate: 1-3% per week, with a spread in all directions of 3-6 miles per week after the initial outbreak. Vector: rats carrying plague-ridden fleas, and also infected victims. Infection: 25% per week per person is exposed. Survival = 30% (60% if Cured). Incubation = 1-3 days. Duration = 1-3 days with 100% incapacitation. Black Death produces blood spots on the skin, enlargement of lymph glands, high fever, severe chills, frequent vomiting, great thirst, and morning diarrhea, with most victims delirious. If a person is not infected during an epidemic, there is a 10% chance + Con score that he is immune. There is also a 10% chance that an exposed person is carrying plague fleas for 1-6 weeks after exposure, provided he does not change clothes or take a good bath. Recuperation = 22-27 days, with victim at 50% capacity physically.

Cholera (2):

Epidemic, lasting 1D10 weeks. Death Rate = 1-3% per week, with a spread of 1-6 miles per week in all directions. Vector: contaminated food, water, and infected people. Infection = 20% per week a person is exposed (10% if food is clean and water is not contaminated, with minimal contact with cholera victims). Survival = 40% +3.D10% (60% + 3.D10% if Cured). Incubation = 1-6 days. Duration = 4-8 days, with 75% incapacitation. Cholera produces severe diarrhea and extreme dehydration, weakness, and intermittent fever and delirious states. Recuperation = 4-10 weeks, with 25%-50% incapacitation.

Typhus (3):

Epidemic, lasting 1 + 1D6 weeks. Death Rate = 1-3% per week, with a spread of 1-6 miles per week. Vector = fleas, mites, body lice, and ticks which thrive when there is overcrowding and filth, plus a food shortage. If such conditions do not exist to a serious degree, plague period is halved. Infection = 10% per week exposed (20% during sieges or in oversized armies). Survival = 75% (90% if Cured). Incubation = 7 days. Typhus produces very high fever which lasts 1D6 days, with victims totally incapacitated. There is a 3D6% chance that a survivor may suffer a relapse in 1-3 years, and 1-5 years thereafter, with each onset as dangerous as the initial infection. No immunity is possible, but persons with high resistance will likely not contract a recurrent illness. Recuperation = 1-4 weeks, at 50% incapacitation.

Typhoid Fever (4):

Epidemic, lasting 3 + 1D6 weeks. Death Rate = 1-2% per week, with a spread of 1-3 miles per week. Vector = infected food/water/milk, flies, direct contact with infected material, and 'Typhoid Mary' type carriers. Infection = 50% if infected food/water/milk is ingested, and 10% if exposed (in contact) with infected materials or a carrier. Survival = 75% (95% if Cured). Incubation = 10-14 days. Duration = 1-6 weeks, with fever for the first 1-10 days. Incapacitation = 75% until the fever breaks, after which one is at 50% of physical powers until recovered. In rare cases, rupture of the intestines and internal hemorrhaging occurs (5% chance), with a 50% chance of death in the fever period. Recuperation = 4D6 weeks. Persons who are exposed but do not contract the disease have a 1% chance of becoming carriers if they fail a Con CR. Typhoid fever can be readily recognized because it produces small red spots on the skin, usually on the chest and abdomen, the first 10 days of the disease.

Small Pox (5):

Epidemic, lasting 3 + 1D6 weeks. Death Rate = 1-2% per week, with a spread of 1-6 miles per week. Vector = direct contact with victim. Infection = 20% per week or a single 50% chance upon first contact (player choice). Survival = 70% (90% if Cured). Incubation = 15-21 days. Duration = 14 days. Small pox produces high fever and massive skin eruptions. Once a victim has recovered, there is a 1D10% chance of scarring by pockmarks (reduce App score by 1D6) and a 1D10% chance of skin discoloration (reduce App score by 1D6). The victim is 75% incapacitated until recovered. Recuperation = 4D6 weeks. Survivors will have full immunity if exposed to the disease in the future, as do any who accept the 50% infection risk and do not contract the disease. (They do not know this, of course, and will have to pass a Fer CR to face small pox situations or aid victims). Once struck a community will be immune from a small pox outbreak for 10 years. Armies suffer ½ the usual death rate, as it is assumed that many soldiers have been exposed to the disease at some time and acquired immunity.

Influenza (6-7):

A strange and hitherto unknown disease strikes 1D10% of the population within the week and then disappears from the area affected (a zone with a diameter of 10 + 1D20 miles). Infection = 10%. Survival = 75% (90% with a Cure). A victim is at 25% to 75% incapacitation for 7 days, after which he recovers. Survivors have a 25% chance of outright immunity if exposed to a new outbreak at a later date (it is assumed a similar strain strikes in most instances).

False Alarm (8-10):

While a significant number of the population is stricken by some disease, very few die. However, the symptoms seem to resemble one of the plagues, and players may be confused and confounded by this. The GameMaster should announce that some dread disease has broken out, with numerous rumors of widespread deaths and other terrors abounding for 1-3 weeks.

When a plague strikes, there is a considerable chance of panic. An army may refuse to attack infected castles, towns, or armies. Indeed, frightened troops might demand to be withdrawn to a safe distance, with a 50% chance of outright mutiny this is not done. Mutiny brings desertion by 1D10% of the army per day that the withdrawal is not begun. Once infected, towns tend to become islands of isolation. The regional authorities will attempt to block all attempts by the inhabitants to flee into the countryside (individual PCs must attempt to break out), and they may even kill escapees on sight before they can reach the safety of the woods or whatever.

Rural areas (manors, castles, towns of 2500 or less) can effectively isolate themselves from a plague 75% of the time by going to full siege status. With the drawbridge up or the gates bolted, and all strangers and outsiders not welcome to enter, a measure of security can be obtained at the expense of totally paralyzing the area's usual activities and commerce. The same is true in large towns, but with a 50% chance of success. Such checks are made weekly after the fourth week of an outbreak. After 60 days, siege status itself brings the risk of plague in the isolated community.

If plagues break out in ports, there is a 20% chance that a ship left bearing the disease. Roll 1D20, with each point on the die representing 10 miles. Then roll 1D6, with 1-4 representing north, east, south, and west (subject to coastline limitations). Any port approximating that distance away in the indicated direction is the destination. Check for outbreak of plague there in the same week as the initial source of infection plus 1 week per 100 miles or part thereof travelled. The same plague can thus break out a considerable distance away.

Once a plague has ravaged an area, it is usually immune from a recurrence of that disease for at least 5 years, excepting 'false alarms'.

NON-EPIDEMICS

Individuals may be exposed to a variety of non-epidemic diseases at the discretion of the GameMaster, who must determine the conditions in a particular area. A few diseases are given below, but gamers are free to add to the list as they see fit:

Dysentery:

Severe diarrhea caused by contaminated water or food exposed to filth, flies, spoilage, etc. Infection = 25%. Incubation = 1 day. Duration = 1D6 days. Survival = 95% (100% if Cured). Recuperation = 1D6 days. The victim is 25% physically incapacitated during the disease and recovery. The illness can be caught only between June and September, but may occur from October to May with a 10% infection rate if the contributing factors are especially bad. Some forms may resemble Cholera or Typhus, and others may be panicked. In fact, no chance of infection exists from contact with a victim.

Common Cold:

Colds have little chance of causing death in themselves. Infection = 30% when exposed to prolonged or extreme damp and chills (+15% when exposed to a cold victim who is sneezing and snuffling a lot). Duration = 3-8 days. If duration is 7-8 days, there is a 50% chance that the cold will persist for another 3-8 days. The victim will snuffle and sniff and sneeze at untoward times (Con CR-3 for silence required), which might compromise a party depending upon stealth. Such a person will also be headachy and cranky, make demands for handkerchiefs from his friends, etc. After 7 days, see pneumonia, below. Characters with Con/19+ are immune, as are Elves.

Pneumonia:

There is a 20% chance — Con CR per week a cold persists that it will develop into pneumonia (double if conditions are wet and chilly). Dura-

tion = 10 + 1D10 days. Survival = 85% per day after the third day of onset, with Incapacitation at 40% during the duration of the disease. A Cure increases survival chances to 95%. If the victim cannot be kept warm and dry, reduce Survival chances by -25%. Characters with Con/18+ are immune.

Tuberculosis:

A savage debilitating disease requiring complete bed rest and inactivity to combat it, T.B. can be contracted from a variety of sources: direct exposure to a victim (10% + 2% per week exposed, to a maximum of 30%); by living in crowded cities (15% chance per year), or by spending more than a week in a dark, deep, damp dungeon (15% + 3% per week incarcerated, to a maximum of 50% per week). Duration/Recuperation = 5.D6 weeks, with any activity during any week extending the duration by 1 week. The victim is 10% incapacitated in the first week, 20% in the second, 30% in the third, and so on until 60% incapacity is reached. Survival = 50%, without any rest (check if active more than 1D6 days in any week); 80% with rest. A Cure increases Survival by +25% if the victim is active, and by +10% if inactive during the recuperation period. Characters with Con/18+ are immune.

Malaria:

Encountered in tropical and sub-tropical areas, particularly jungles and swampy regions, malaria brings high fever and almost total incapacity during attacks. Infection = 40%. Vector = malarial mosquito (bites required to infect). Duration = 1-3 days per attack. Frequency of Attacks = 20% chance per month, during summer or fall. If in a temperate or cold climate, the attacks will not likely occur. Survival = 80% per attack (95% if a Cure is performed).

Spotted Fever:

Also known as recurring fever, this disease has about the same general effects as malaria. Infection = 30%. Vector = ticks, usually encountered in dense woods. Duration = 1D6 hours per attack. Frequency of attacks = 10% per month in summer or fall only. Survival = 85% per attack (95% if Cured). There is also a 1D10% chance that a survivor of an attack becomes mentally unbalanced from fever-induced brain damage if the Con CR is under 13.

Chicken Pox:

A disease which appears to a layman to be Small Pox, but which a trained Physician can fairly readily diagnose. It is treated as Small Pox, except Death Rate = 1%. All survivors are guaranteed immunity. There is also a 75% chance that those who live in the area and/or who were personally exposed are immune. Survival Rate = 95%. Infection = 40%. Duration/Recuperation = 14 days at 25% incapacitation. Note: the disease can be considered as an epidemic in that it is highly contagious and will spread. But it is actually quite 'harmless' when compared to the great plagues. Scarring can occur if the pustules are scratched — a possibility with weak-willed characters.

Septicemia:

Blood poisoning can result 1D20% of the time, minus the PC's disease resistance whenever wounds are caused by edged weapons, and the body has been reduced to 25% of normal levels. Survival Rate = 50% (80% if Cured). Only Physicians who have been trained in a Muslim nation or in an ancient culture (like Greco-Roman) may understand the nature of such infections and guard against them by using clean dressings and instruments, cleaning out wounds, etc. They can therefore attempt 'Cures' while normal feudal Physicians will be powerless. Recuperation = 10 days, with 75% incapacitation. A wound may become mildly infected and might be burned out or treated with herbs, etc., with success. But a failure means septicemia may result. Also, note that some races may rub the edges of their weapons with filth to bring a +10% chance of infection when wounds are inflicted.

Peritonitis:

Infection of the body cavity will result 30% of the time minus the disease resistance of the victim when the chest cavity is breached by a weapon — especially when the stomach and intestines (abdominal area) is involved. Survival is 40% (70% if Cured by a Cleric or treated by a Physician trained in a Muslim nation). Recuperation = 20 days, with 75% incapacitation.

Gangrene:

This grievous infection will occur 50% of the time minus the vic-

tim's disease resistance when he has lain in moist ground, filth, or dungeon damp for more than 24 hours without having his wounds cleaned and dressed, preferably by a Physician. Gangrene infects open wounds, compound fractures, etc., and only radical surgery (amputation of the affected extremities or limb) will cure it, short of a miracle. An amputation or Cure must be performed within 72 hours of the infection's onset (80% success chance), or the victim will lapse into coma and high fever. Each hour thereafter reduces the survival chance by 5%. Recuperation: a survivor will need about 2-4 weeks to recover, with 50% incapacitation.

Rabies:

There is no known cure for rabies, but a Cleric may be able to effect a Cure (25% chance + victim's disease resistance). Only one Cure Disease may be attempted on the victim each day for the first three days of the disease, after which the illness is irreversible and fatal. Rabies has a 3-day incubation period, during which the victim grows increasingly irritable, eventually developing a fear of water. In the fourth day, there is a 25% chance per hour that he will go mad, frothing at the mouth and attacking those around him. Once maddened, the victim has a 10% chance per hour of dying and, by the end of the seventh day, will die from the disease. Vector = bite from a rabid animal or contact with the froth. Infection = 25% from bite; 10% from froth.

Leprosy:

In ancient and medieval times, leprosy was a dread illness which caused unreasoning fear in onlookers. Lepers were shunned by all healthy people, and contact was avoided. Lepers had to wear hooded cloaks and ring a bell to warn passers-by. They might beg alms, but were forbidden to touch healthy people. They also had to live apart in leper colonies. In fact, leprosy is not a contagious disease, but so great is everyone's fear that they will likely panic or react with hostility if a leper does not obey the rules of no contact and non-association.

Leprosy causes the slow rotting away of tissue, beginning with the outer extremities and spreading to the body trunk. It is quite terrible in appearance, especially in advanced stages. Infection = 2%, checked every 6 months spent in Middle-Eastern regions (do not apply disease resistance factor); Con/16+ = 1%; Con/4-7 = 4%. Incubation = 1-3 weeks. Duration = 24 months + Con (in months). Survival = 75% per month after the 24th month. A Physician may raise the survival chance and the duration by his Med. Ab. A Cleric may attempt a Cure once every 1-6 months if of Piety/14+, at ½ the chance of a miracle occurring. A Cure will totally eliminate all the ravages of the disease. Leprosy victims lose 1 Appearance point per month, beginning after the 6th month, and also lose 5% of their physical capacities per month after the 6th month until 75% incapacitation is reached.

Rashes:

A wide range of rashes and skin irritations may occur because of contact with various plants (like poison oak, poison ivy, nettles, etc.), allergy to some food or object, etc. Most of these rashes simply clear up after awhile, others require some medical treatment. Essentially, most rashes are harmless, but a few will appear to be leprosy in its early stages — which can prove frightening to both the victim and those around him. Since such rashes can be cured by application of salves, etc., some Physicians may acquire quite a reputation for their ability to cure leprosy.

Leprosy Of The Tomb:

Also known as the 'Mummies' Curse,' this extreme form of leprosy may be contracted in ancient burial places or directly from mummies. Infection = 15% if exposed to the germs for any significant length of time spent in a tomb; 30% if touched by a mummy. Incubation = immediate. Duration = until zero capacity is reached. Victims lose 1-3 Appearance point per week they suffer from the disease, wounds will not heal, and -2% capacity is lost per day infected. A Physician can only arrest the illness for 4 + 1D6 days and cannot cure it. A Cleric may attempt a miraculous Cure each week, at ½ the normal chance. There is also a chance equal to the incapacity incurred that the damage caused by the disease is permanent. Death will occur when the victim reaches zero capacity, and there is no chance of resurrection if that miracle is allowed in the campaign. Note: The disease is a genuine 'curse' and is susceptible to a Remove Curse if performed within one hour after exposure.

Foresters

by Trevor Clarke and Edward E. Simbalist

There are several Forester types. Generally, a Forester should be born to the countryside, and townsmen should be excluded from the vocation.

ELVISH FORESTERS:

All Elves are effectively foresters (Fighter/Mages) and obtain experience for activities in both areas.

HUMAN FORESTERS:

Most Human Foresters should come from the Yomanry or may be 4th-6th sons of Knights, Sons of Foresters, Animal Trainers, or Falconers automatically inherit a Primitive Talent in Forester Magick. Their IQs and Dexterity are also at 12, if they fall below those minimums. Other Foresters may practice Forester Magick if they qualify as Primitive Talents. Experience is obtained for fighter-forester activities, and also for practicing Forester Magick.

SHAMAN & DANCE/CHANT FORESTERS:

These mage-types correspond closely to the magical-religious adepts of primitive societies, and thus can practice Forester crafts. Similarly, Druids from Celtic societies can fairly easily qualify for Forester status, as they are mage-priests of a nature-oriented religion.

HAEFLING FORESTERS:

Haeflings (Hobbits) may qualify for Forester status if they are infected with 'unrespectable' wanderlust and should come from the Yeoman class.

Human Foresters will likely be in the service of some Lord and act as Game Wardens and rural Constables. Other Forester types tend to be fairly independent. Human peasant-foresters may tend toward poaching as a clandestine occupation. Haefling/Hobbit characters will be wandering adventurers, for the most part. Elves will owe allegiance to their face but may be on detached service when Elvish lands are untroubled. Any Forester type can, of course, be engaged in hunting and trapping as a vocation.

FORESTER MAGICK

Human Foresters and Haeflings are limited to the kind of Magick they can perform, but Elves, Shaman, Dance/Chant mages, and Druids can practice a wider variety of spells than those listed below:

DETECTION:

Altitude, Life, Small Traps, Traps, Distance, Observation, Find the Path, Sense the Hidden. Small Traps and Sense the Hidden are effective only in an outdoors setting, for Forester Magick works only because of the Forester's sensitivity to and affinity for his natural surroundings.

COMMUNICATION:

Animal Messenger.

COMMAND:

Foresters acquire a rapport with animals and are able to cast spells of Command against them as if they were full Adepts of a given Circle of Command once they acquire the spell (they need not know other spells of that Circle to be proficient). Thus a Forester knowing only Charm Small Animals would be an Adept of the Second Circle, for that purpose. The Command spells available to Foresters are: Charm Small Animals, Hold Small Animals, Command Small Animals, Hold Large Animals, Command Large Animals, Summon Animals. The proficiency rating of the Forester is equal to the highest level spell possessed.

Shaman, Dance/Chant Mages, Druids, and Elves can learn other spells, of course, for they are not limited in their magical powers.

WOODCRAFT

Being born to the countryside, all classes of Forester acquire various skills and talents related to their vocation. Non-Foresters can also learn the Woodcraft skills at the experience point cost given by paying it for three experience levels. Townsmen must pay double cost as they are not born to the countryside, but will qualify for 'country' status and costs once they have fully acquired five Woodcraft skills.

STEALTH:

Foresters have a basic 10% chance of moving stealthily through

undergrowth when proceeding at normal speed. This probability is modified by +2% per level of experience attained. The resultant percentage is subtracted from the chance of being heard by anyone within a 100-foot radius. If a Forester is more than partially encumbered or worse, he loses -5% per 25 dr. of excess weight carried. Cost = 1500 e.p.

HEARING:

Foresters have keenly developed hearing and will detect sounds that do not belong in the forest. They have a +2% bonus per experience level when attempting to hear another within 100 feet. Cost = 1500 e.p.

BLENDING WITH THE SURROUNDINGS:

Foresters have a basic 10% chance of blending in with a forested setting and evading detection so long as they remain silent and unmoving. They acquire a +5% bonus per experience level until a 90% chance is obtained. This check is made prior to any attempt to detect them with sight or hearing and only if it fails is there an opportunity to detect them by natural means. Cost = 2000 e.p.

COVERING TRACKS:

A Forester can cover his own tracks, and also that of a party he is leading. There is a basic 90% chance, with -10% per two persons with him not of the Forester class. (-30% per two mounted persons or pack animals). Each experience level adds +5% to this chance, but no more than a 90% chance of successfully covering tracks can exist. (The bonuses are used to increase the chance of concealing a large party's passage only). Covering tracks requires slowing down to a cross-country speed of about 1 mph or less. Cost = 2000 e.p.

TRACKING:

A Forester can track animals or persons across country. There is a basic 25% chance plus 3% per experience level of the Forester to follow a plain trail. If an attempt is being made to cover tracks, this probability is reduced by -5% per experience level the covering Forester is above the experience level of the tracker. Note: this last probability is applied only if the covering of tracks is successful and the tracker is attempting to find the trail again. Cost = 2000 e.p.

HOLDING LARGE/SMALL ANIMALS:

Foresters possess this 'magical' ability because of their considerable knowledge of animal behavior. Primitive Talents acquire it without cost, as do Elves and the Mage types, but ordinary Foresters must pay 500 e.p. per experience level to acquire it and advance. The confidence shown by the Forester when facing an animal will cause the beast to hesitate, forestalling an attack (if that was the animal's original intention) or perhaps even flight (giving an opportunity to make one shot with arrow or spear). The animal will be frozen in place 20% + 5% per experience level, to a maximum of 90%, checked each turn. Only one animal may be affected at a time, with an effective range of 30 feet + 5 feet per two experience levels, to a maximum of 75 feet. The Forester must meet the animal's eyes to be effective, and the animal must not have been charging when the gaze was leveled. Unavailable to non-Foresters, but Animal Trainers and Falconers may acquire the skill at 500 e.p. per experience level advanced.

FINDING DIRECTION:

Foresters have the ability to find true North whenever they are above ground, unless magical means are being used to muddle the Forester's powers of observation. (This attempt to confuse he can detect 10% of the time + 2% per experience level). This skill is not magical, and is based on observations of the sun, stars, and other signs. Cost = 1000 e.p.

INTENTIONS OF ANIMALS:

Foresters are able to discern the intentions of animals from their behavior. For each experience level, a Forester learns to read the intentions of two animal types. In melee, this gives him a 20% chance +3% per experience level of correctly gauging the animal's tactic (dodge, parry, strike, and TAC choices), the tactical 'reading' being made after the animal's tactics are chosen. The Forester thus has the advantage when choosing his own tactics. Also, general intentions (friendly, fearful, hungry, etc.) are also clear to him. Cost = 2000 e.p. per animal.

PREMONITION:

Foresters have a highly developed sixth sense and may be forewarned of any immanent danger in the wilderness. By his heightened awareness, he may hear or otherwise sense something ahead, or he will notice unnatural alterations to the surrounding vegetation (bent grasses, broken twigs, etc., suggesting a possible ambush, concealed trap, etc.). An encounter has a 50% chance —3% per experience level of evading his notice before it happens. A 'detection' will provide both a bit of time and distance to prepare for trouble. On the other hand, if a Forester is preparing an ambush, add +3% per experience level to the chance of the impending encounter going unnoticed (less the percentages of the Forester(s) in the party to be ambushed). Such premonitions do not reveal the nature of the peril, only a rising of the hackles at the back of one's neck and a general sense of danger. Unavailable to non-Foresters.

IDENTIFICATION OF WILD FOODS:

A Forester has a basic 30% chance of identifying any safe wild fruits, berries, nuts, mushrooms, roots, etc., +5% per experience level. His chance of finding such foods is 10% + 2% per experience level, checked hourly. One check may be made per day for each two experience levels of the Forester, and he will find food enough for one person per two experience levels he possesses.

Fish Encounter %	Approach %	Pull %	Secured %	Time Factor
6oz —1 Dr. 01-60%	80%	50%	50%	1 encounter/10 minutes
1 — Dr. 61-75%	65%	80%	55%	1 encounter/10 minutes
2 — Dr. 76-90%	45%	60%	60%	1 encounter/15 minutes
3 — Dr. 91-95%	30%	40%	75%	1 encounter/20 minutes
5 — Dr. 96-00%	15%	25%	80%	1 encounter/20 minutes

If the Dexterity of the Forester is 16+, add +10% to percentage chance of success. If a Non-Forester is fishing, subtract —20% from all percentages.

'TICKLING' FISH:

Trout and tench can be caught most effectively by 'tickling'. A fish is located and a hand is very carefully slipped into the water and moved toward the fish until the fingers are in a position to gently stroke the belly of the fish. The fish becomes perfectly quiescent and slowly begins to rise in the water, enabling the hand to be brought into the correct position to pull the fish from the water. The Tench, however, must

TRAPPING WITH THE SNARE:

Snares are used to catch rabbits and hares, being set on 'runs' which the creatures use regularly. Snares must be set in areas frequented by rabbits and hares, such as hedgerows or copses and thickets. Non-Foresters have a 30% chance of setting a snare correctly. Foresters have a 50% chance + 5% per two levels of experience. Once the snare has been successfully set and sprung, there is a 30% chance of the plug securing the snare having filed. This is modified for Foresters by —2% per two levels of experience. This allows for the rabbit or hare to pull the plug free. If the snare is not checked once per day, there is a 50% chance + 10% per day thereafter that the catch, if any, was stolen by some other animal.

CATCHING FISH:

The snare used to catch fish is made from a willow stick tied back upon itself in a running noose. (Willow is remarkably pliant when green). Once a fish is located, the Forester slips the noose, set for the size of fish, into the water some 3 or 5 yards upstream of the fish's head. The noose is slowly moved downstream until it slips over the fish's head and about 1/3 of the distance along its body. Once in position, the willow is given a sharp jerk up and towards the bank, pulling the fish from the water. However, the noose will not hold the fish once the tension is released, and the fish must be grabbed before it can wriggle free and fall back into the water.

not be allowed to rise too far before being pulled, as they do not care for sunlight and will glide away suddenly if exposed. By making a snapping motion with the thumb and fingers, the fish is caught behind the gills and is pulled from the water and onto the bank. The grip must be firm with the Tench or it will slip away due to its slimy skin.

Basic encounter percentages:

00-60 = other fish (snare, see above)
61-85 = trout (See 'Time Factor' above when size is found).
86-00 = tench (See 'Time Factor' above when size is found).

Fish Encounter %	Approach %	Trout Rise %	Tench Rise %	Trout Pull %	Tench Pull %
6oz —1 Dr. 01-60%	70%	99%	90%	45%	40%
1 —2 Dr. 61-75%	60%	80%	60%	55%	50%
2 —3 Dr. 76-85%	40%	60%	50%	65%	60%
3 —4 Dr. 86-95%	25%	40%	30%	75%	65%
4 —5 Dr. 96-00%	10%	25%	20%	85%	70%

If the Forester has a Dexterity of 16+, add +10% to percentage chance of success. If a Non-Forester is fishing, subtract —20% from all percentages. Also, those with a Dexterity of 10 or less subtract —2% per Dexterity point counting down from 10.

The Tench Rise percentages are used only when the weather is sunny. When it is overcast, use Trout Rise percentages for Tench as well.

It might be noted that this ancient method was the one employed by Gollum in *The Hobbit* and *Lord of the Rings* when catching 'Fishh'!

TRACKING:

After long hours spent in the woods and surrounding countryside, the Forester has developed an excellence in the Art of Tracking:

Soft Earth/Soft Cover: 10% per level to max. 100%, but —7% per day of age of track.
Hard Earth: 7% per level to max. 70%, but —7% per day of age of track.
Rock: 2% per level to max. 20%, but —7% per day of age of track.

Bad weather (rain, etc., which obscures tracks) reduces maximum percentages by 25%.

Cross trails, doubling back, etc., by animal reduces maximum percentages by 1-20%.

A check is made once every 15 minutes or whenever new terrain is

encountered or the quarry changes direction. If the trail is lost by failing the modified probability of keeping on the trail, there is an initial chance of 5% per level of the Forester to a maximum of 30% of finding it again within 15 minutes. If this attempt fails, there is a 10% chance per hour of rediscovering the trail, checked hourly so long as daylight persists. Once the trail is found again, resume tracking. Tracking per-



centages may be applied to any quarry, beast, monster, or man, which leaves a track.

Should the weather or evasive action reduce the percentage chance of tracking to 0%, the trail is considered to be totally obscured to normal observation and may be found again only by the use of Magick.

ARCHERY:

In addition to Favorite Weapon Skill, the following hit probability bonuses apply:

Elves:	+10% with the Elvish Bow
Hobbits:	+15% with the Sling
Fighter/Foresters:	+5% with the Long Bow

Being a Forester:
On expedition:
Successful Kill:

SPECIAL EXPERIENCE BONUSES

1 pt/day x experience level
3 pt/day x experience level
150% of animal experience bonus

Forester Magick:
Following Trail:
Supplying Party:
Vanquishing/Slaying:

SPECIAL EXPERIENCE BONUSES

As for Magicians
3 pt/day x experience level
10 pt/person fed per day
As for Fighter when defeating enemies by force of arms.

The Hunt by Trevor Clarke and Edward E. Simbalist

The following rules are an attempt to convey the hunt situation involving dogs following a scent to find their quarry. The rules have been designed specifically with playability in mind. To follow every detail of the type of hunt represented here would produce a tome in itself.

Scent Encounter

Dog types are given in the Beasts section of the new C&S.

The chance of a scent encounter is determined by adding the percentage for the dog type being used to the scent strength percentage. The resultant percentage is the one that must be rolled to encounter a scent.

Dog Type	Stag	Deer	Fox	Bear	Boar	Hare	Bird	Cat	Dog	Other	Man	Monster
Talbot	10	40	30	25	25	40	30	35	45	25	45	50
Staghound	10	40	25	30	30	40	20	20	30	20	30	50
Wolfhound	10	40	20	35	25	40	15	20	25	20	40	50
Southern Hound	5	40	35	20	30	50	15	20	25	20	25	50
Mastiff	5	30	15	20	20	35	5	20	20	15	20	50
Wolf*	15	45	25	25	30	35	5	30	35	20	50	50

*Wolves will rarely be used by men but will appear with Orcs or in hunting packs. Dogs will bristle at the scent and balk at pursuit, with the exception of Wolfhounds and Mastiffs who love hunting wolves.

	Scent Strength %
Stag	25
Deer	45
Fox	25
Bear	30
Boar	30
Hare/Rabbit	40
Bird	20
Cat	30
Wolf/Dog	40
Other Animals	20
Man/Elf/etc.	35
Monster	50*

*Due to unkempt state or the plain horribleness of the smell. Dogs bristle and act positively outraged about the whole business, an unmistakable sign. Undead leave no scent, but the animals sense their passing the area and show definite fear — and it is more than mere trembling or whining.

Scents may be encountered by using the overland encounter tables (a particular animal encounter may be judged a scent) and then checking to see if the dog caught the scent. Alternately, a D10 may be rolled (Stag to Other), and the scent will be present within the percentage for dog type + scent strength. Roll D100 to find if the dog has the scent.

When hunting with a pack of dogs of the same type, increase percentages by +1% for each additional dog, to a maximum of +5%.

If a particular animal is the object of the hunt, use the dog type percentage + scent strength percentage for encounters, ignoring all other scents (unless threatening). Check one every 15 minutes. Hunting for scent is done at walking pace until the scent is found.

MAINTAINING THE SCENT

Once the scent has been found and established the dog must successfully follow it to gain the quarry. Roll D100. If the result is not within the scent percentage for the dog, he has lost the scent. A maintenance

check is made every 5 minutes (two turns) of the chase.

To recover the scent, there is a 10% chance + Dog type percentage + 2% per dog being used — 2%/turn spent searching. Check once per 2.5 minutes (one turn) spent searching.

CROSS SCENTS

While following a scent, dogs will encounter other scents which may or may not prove more interesting to the dog than the present scent. There is a 25% chance of encountering a cross scent whenever a check is made for searching or trailing. Roll D10 for the scent type (Stag to Other). If the Dog type percentage for the new animal is higher than for the one being tracked, the dog will take after the new scent. If the Dog type percentage is lower for the new animal, continue the chase after the old scent. Only one check is made for any number of dogs.

BAD WEATHER

Reduce scents by 50% in rain. Several days will destroy them completely. Winter, with snow, has the same effect.

The Chase

The chase occurs once the dogs have closed to sighting distance of the quarry. Use the overland terrain movement system in this *Sourcebook*.

COMBAT: BRINGING DOWN THE QUARRY

If the dogs successfully run the game down, their quarry will be forced to fight for its life. The number of dogs that are able to attack the quarry depends upon its size. Small quarry will be attacked by only 1 or 2 dogs at a time. Man-sized quarries would be attacked by a pair. Large animals and monsters could be attacked by several pairs at once. Such attacks are, of course, dependent upon the terrain features. A bear with his back against a tree would be vulnerable to only one pair of dogs.

When attacking in pairs, one dog will launch a feint attack to provide the other with a free blow. Game animals will have a 20% chance of foiling a feint. Men and intelligent monsters have a 10% chance + 2%/Wisdom point. Foresters will have a 20% chance + 2%/Wisdom

point. These percentages are reduced by -5% for each additional dog attacking over the initial pair.

If the feint is successfully foiled, the quarry can turn his full attention on the attacking dog, with +5% hit probability.

An animal will be bashed to the ground if hit by a dog more than twice its own weight.

Mastiffs, Wolfhounds and Wolves spring for the throat. If a hit is scored and no attempt was made to parry, the animal has found its mark. Consider damage as an automatic critical hit, with critical probabilities representing a mortal wound.

abilities representing a mortal wound.

Combat is otherwise conducted as given in *Chivalry & Sorcery*.

COMBAT: SHOOTING DOWN THE QUARRY

Should a particularly dangerous quarry be brought to bay, such as a bear or large cat (or monster), the dogs might choose to hold it by feinting attacks which are not driven home. When the hunting party arrives, missile fire or close-in work might be the best course of action to save the dogs. Use the following tables to calculate the percentage chance of success:

	Range of Weapons & Hit Probabilities on the Hunt							
	Short Bow	Horse Bow	Mongol Horse Bow	Light X-Bow	Composite/Longbow	Elvish Bow	Javelin	Axe
Open Plain	450'	300'	450'	500'	600'	750'	100'	100'
Hedge & Brush	400'	250'	400'	450'	550'	700'	100'	80'
Light Woods	300'	200'	350'	350'	400'	575'	75'	75'
Woods	200'	175'	275'	275'	300'	400'	50'	50'
Dense Woods	100'	100'	150'	150'	200'	300'	50'	25'

These range modifications can also be used in man-to-man combat situations in various types of terrain cover.

Spears may be used to defend a 30° arc in front of the wielder when in dense woods and thickets.

Accordingly, the percentage chance of a hit is reduced in terrain that is obscuring the target and presenting obstacles such as trees that will deflect the missile.

Weapon	Hit Probability Reduction				
	Plain	Hedge/Brush	Light Woods	Woods	Dense Woods
Short Bow	-	-5%	-10%	-15%	-25%
Horse Bow	-	-5%	-10%	-15%	-25%
Mongol Horse Bow	-	-5%	-10%	-15%	-20%
Light X-Bow	-	-5%	-7%	-12%	-20%
Composite/Longbow	-	-3%	-5%	-10%	-15%
Elvish Bow	-	-	-3%	-5%	-10%
Javelin	-	-	-5%	-10%	-15%
Axe	-	-	-5%	-10%	-20%

Modifiers: These take precedence over those in C & S, where applicable.

Target moving at top speed:	-25%
Target moving:	-10%
Target stationary:	+15%
Target obstructed by trees:	-10%
Target large animal:	+5%
Target very large animal:	+10%
Flank Aim*:	+10%
Head Aim*:	+5%
Rump Aim:	+5%
Shooting while moving:	-15%
Shooting at the run:	-25%
Shooting below eye level:	-10%**
Shooting above eye level:	+5%
Per +1 Magick increment:	+5%

*If 4-legged animals are rearing, percentage chance of mortal wound = critical hit percentage, if a critical is already scored.

**In C & S, +10% was given for firing from above. However, this was in the case of defending a battlement, stair, etc. In the wilds, terrain can be very misleading, and men firing below eye level tend to fire high.



Feudal Economics by Edward E. Simbalist

The economy of a feudal nation, and thus its strength and health, was dependant upon farming and livestock raising. At best, a population lived in precarious security, with its resources often strained to the limit. To reflect the importance of agriculture in feudal/fantasy campaigns, and also to permit players to determine their exact holdings and worth for characters engaged in farming, the following system is recommended:

To find the total number of acres under cultivation in a particular fief, barony, county, duchy, or nation:

(1) Add the numbers of Knights, Squires, Sergeants, Men-at-Arms, Mercenaries, Petit Sergeants, Yeomen, and Peasants in the region. Multiply the total x 10 to account for their families and any unidentified non-combatants in the area.

(2) Add the populations of the towns to the total in (1). Ports double their populations to represent the maritime population along the coasts who make their livings from fishing and the sea trade.

(3) Double the total population figures to find the number of acres under cultivation. This averages around 2 acres per person in the nation.

All agricultural yields are expressed hereafter in 'bushels' (bu.) for the same of easy handling. This represents food value, with one bushel equal to about 35 lbs. of grain or its equivalent.

The following statistics are relevant when determining the ability of available food stocks to sustain life at a healthy level. When food stocks fall below the annual requirement of the nation, fief, etc., populations will be selectively reduced by social class, according to player discretion, until the population can be supported by the food supply. Food requirements are:

Knight plus Warhorse 1500 bu./year
Mounted Fighter plus Warhorse 300 bu./year
All other Individuals 24 bu./year

SEED:

One bushel must be retained as seed per acre in order to produce an average crop of 8 bushels/acre. Note that feudal farming techniques

were very inefficient by modern standards, and yields were correspondingly low. A 25 bushel/acre crop was considered incredible. Today, it is mediocre.

PASTURE LAND:

Pasturage equal to about 500% of the cultivated land is available to graze animals and to grow fodder. Each acre produces 5 times the average grain yield (40 bushels/acre) in an average year. Fodder also includes any straw produced from the grain crops, and this is accounted for in the 40 bu./acre pasturage, as are slops and forage for pigs, etc.

At least 10 bu. of fodder are required to produce 1 bu. of animal food value. Only 50% of the total animal crop so produced can be used as food in any given year, as the remainder must be retained as breeding stock, draft animals, spare cavalry mounts, etc. For those players holding individual fiefs or farms, a detailed breakdown of the animal population is:

TYPE OF ANIMAL ON FARM/FIEF	USUAL % OF TOTAL	FOOD VALUE	FODDER/ YEAR	% NEEDED FOR BREEDING
Cavalry Horse	.05% max.	100 bu.	1000 bu.	75%
Horse/Mule	.05%	100 bu.	1000 bu.	75%
Oxen/Bulls	.05%	150 bu.	1000 bu.	50%
Cattle	.25%	100 bu.*	1000 bu.	50%
Pigs	.40%	25 bu.	250 bu.	40%
Sheep	.05%	10 bu.	100 bu.	40%
Fowl	.10%	1/10 bu.	1 bu.	20%

*Unslaughtered cattle produce 50 bu./yr. of milk. Average yield per cow = 50 bu./yr.

Note that a certain percentage of each type of animal must be retained for breeding. If any type is reduced below the breeding percentage, the number of animals produced in the following year's reduced in proportion. For example, if only 25% of the cattle were retained, the following year's 'crop' of cattle would be 25/50 = 1/2 of what it would have been if breeding stock had been retained. Conversely, if more breeding animals are retained, let us say 75% of the cattle, the 'crop' would be 3/2 of what it would be normally. Remember that adequate fodder will be needed to maintain the increased number of animals, and the basic crop is always based on the available feed.

To avoid multiple computations, the total average yield of food from all food animals is 58.0 bu./1000 bu. fodder.

The following table provides for variations in the annual crops. Roll percentage dice at the beginning of the October month to determine the harvest. The produce obtained, along with any money gained from sales, must support the nation or the individual for the following year:

- 1-2: Astounding crop! Yield is 25 bushels/acre (90 bushels of fodder/acre). Fief revenues (rents, taxes) are 300% of normal.
- 3-4: Bumper crop! Yield is 20 bushels/acre (85 bushels of fodder/acre). Fief revenues (rents, taxes) are 250% of normal.
- 5-7: Bumper crop! Yield is 18 bushels/acre (80 bushels of fodder/acre). Fief revenues (rents, taxes) are 225% of normal.
- 8-10: Excellent crop! Yield is 16 bushels/acre (75 bushels of fodder/acre). Fief revenues (rents, taxes) are 200% of normal.
- 11-13: Superior crop! Yield is 15 bushels/acre (70 bushels of fodder/acre). Fief revenues (rents, taxes) are 150% of normal.
- 14-16: Superior crop! Yield is 12 bushels/acre (60 bushels of fodder/acre). Fief revenues (rents, taxes) are 150% of normal.
- 17-20: Above average crop. Yield is 11 bushels/acre (55 bushels of fodder/acre). Fief revenues (rents, taxes) are 130% of normal.
- 21-25: Above average crop. Yield is 10 bushels/acre (50 bushels of fodder/acre). Fief revenues (rents, taxes) are 120% of normal.
- 26-35: Above average crop. Yield is 9 bushels/acre (45 bushels of fodder/acre). Fief revenues (rents, taxes) are 110% of normal.
- 36-70: Average crop. Yield is 8 bushels/acre (40 bushels of fodder/acre). Fief revenues (rents, taxes) are as printed in C & S.
- 71-85: Below average crop. Yield is 7 bushels/acre (35 bushels of fodder/acre). Fief revenues (rents, taxes) are 90% of normal.
- 86-97: Poor crop. Yield is 6 bushels/acre (35 bushels of fodder/acre). Fief revenues (rents, taxes) are 80% of normal.
- 98-99: Poor crop. Yield is 6 bushels/acre (30 bushels of fodder/acre). Fief revenues (rents, taxes) are 70% of normal.
- 00: Crop failure! Yield is 5 bushels/acre (25 bushels of fodder/acre). Fief revenues (rents, taxes) are 50% of normal.

'Famine' is declared when more than 5% of the population is threatened by starvation death. Determine the number of possible starvation deaths over the following year by dividing the food deficit by 40 (an average person can survive on 10 bushels per year). From November to April, 1-10% will die each month, so that 6% to 60% of those expected to die will have passed on by the end of Winter. No remedial action, such as buying food from neighboring nations, is possible on the national scale until Spring. It is possible, however, for one manor to buy from a neighbor up to 50 miles away. Once the winter is over, starvation deaths will occur at 1/6 of the remaining possible deaths per month, until all have died by September.

For example, suppose that there was a shortfall of 930,000 bushels. In dividing by 24, we find that 38,750 people are slated to die by the end of next year. If there were 600,000 in the nation, 5% will be replaced by the following spring due to new births, etc., or 30,000. Thus the population would decline only 8,750 over the year. Suppose that, rolling 6D10, a player obtains 7, 9, 10, 2, 3, and 6 = 37% starvation deaths of 3238 lost over the winter. The remaining 5512 can be saved by feeding each 2 bushels per month or 11024 bushels, which could be purchased abroad. If food is not forthcoming, 1/6 of the group dies each month.

The above example is not a 'famine' because only 8,750 were lost from the total numbers in the nation. However, if more than 30,000 were slated to die even after replacement rates were taken into account (one might note that 'infants' are not counted as a charge on the food-stocks in the first year), then a 'famine' would result. Famines have a very serious effect on the economic health of the nation and may, as will be shown in a later section, lead to Plague.

The normal replacement rate for the entire population is 5%. If the crop is superior, replacement is at 6%. Excellent and bumper crops produce a 7% and 8% replacement rate. Astounding crops produce a 9% replacement rate. In short, when there is plenty of food, there are also plenty of babies. Note: replacements are normally taken to make up losses.

To keep track of data, whether on the national or the manor level, use the format below. Players having farms or fiefs should see the section on 'Characters in Agriculture' later in this article.

The following example is based on a total of 10,000 fighters, with 300 knights, 1700 other mounted troops, and 8,000 infantry. They have 90,000 dependants and other people living in the countryside. In addition, there are six towns with a population of 23,000:

Total Ftrs: 10,000
Total Population: 123,000
Food Requirement: 3,638,000 bu.

Acres in Grain: 246,000
 Crop/acre: 8 bu.
 Yield: 1,968,000 bu.
 Minus seed: - 246,000 bu.
 Net Yield: 1,722,000 bu.

Total Food: 3,690,000 bu.
 Food Required: 3,638,000 bu.
 Surplus: 445,600 bu.

Acres of Fodder/Grazing: 984,000 acres
 Fodder/acre: 40 bu.
 Yield: 39,360,000 bu.
 Animal food value: 3,936,000 bu.
 Percentage usable food value: 50%
 Net Yield: 1,968,000 bu.

With a surplus of 52,000 bu. of food, the little nation has a fairly good outlook for the coming year. However, a drop of 1 bu./acre in the crop would provide only 3,198,000 bu., and people would start dying of hunger. Such is the case on an average of 3 years out of 10! Hunger and Famine were regarded as one of the 'Four Horsemen of the Apocalypse', and was feared no less than the others — Pestilence, War, and Death. A bad year could kill 18,300 people! That's 14.9% of the population.

Years of bounty will lead to a much needed surplus which can be stored (with risk of loss to pests) against future lean years, sold, or converted into population increase:

1. Storage of food (grain) and retention of animals is possible. Animals may be retained simply by feeding them (see fodder requirements above). Also, players may choose to reserve up to 40% of their fodder crops in the form of hay, taking fewer animals in a given crop year to build up feed stocks (subject to storage loss).

Stored grain and fodder may be placed in barns and granaries. Up to 50% of these stores may be located in specified castles and towns, the remainder being stored in the countryside in individual farms. Storage is possible up to 3 years for grain and up to 2 years for feed. Each year, in October, check for loss from pests for the following year by rolling D10:

1-4 = 10% loss 7 = 30% loss 9 = 50% loss
 5-6 = 20% loss 8 = 40% loss 10 = 60% loss

2. Surplus grain and animals may be sold. On the national scale, the lords are assumed to realize 60% of the proceeds from all sales. On the individual player level, the animals will be sold on the basis of a fluctuating market value, and they will be able to plan out in more detail the nature and extent of their crops so as to gain greater returns.

a. Sales on a national scale deal with large quantities of grain and animals. Since produce sold is of widely varying quality, a fairly minimal value is assumed:

Grain: 2 SP/bushel Food Animals: 3 SP/bushel

Such specialized creatures as warhorses are sold on the fluctuating table values, as are draft animals. Simply roll the appropriate dice 5 times and take the average value.

b. Sales by characters are computed according to the values given in C&S (Market Place: 12.10; 12.11; 12.12; 12.14).

The following modifiers may be used to further change market conditions:

Situation	Crop Modifiers:						Warhorses, Draft Anim.
Existing:	Wheat	Oats	Barley	Rye	Hay	Food Animals	
Local War	+10%	+2—%	+10%	+10%	+20%	+20%	+30%
National War	+20%	+3—%	+20%	+30%	+30%	+30%	+40%
Foreign Buyer	+10%	+10%	+10%	+10%	+10%	+10%	+20%
Poor Crop	+10%	+10%	+20%	+20%	+10%	+10%	+10%
Famine	+30%	+40%	+40%	+50%	+50%	+30%	—
Bumper Crop	-20%	-10%	-10%	-10%	-20%	-20%	—
Rip-Off* (Seller)	+20%	+20%	+20%	+20%	+20%	+20%	+30%
Rip-Off* (Buyer)	-10%	-10%	-10%	-10%	-10%	-10%	-30%

*The 'rip-off' can be attempted only by buyers or sellers who have bardic voice over 15. In effect, they talk up prospective buyers and talk down sellers, so that the value of the grain or animals is misrepresented. Any character with intelligence and wisdom scores totalling 20 or less will be taken in every time. Characters with intelligence and wisdom scores totalling 21 + will have a 5% chance for each point the combined scores are above 20 of seeing through the fast-talker and refusing the sale/purchase or else going to Haggling.

3. Populations of nations may be increased by investing a portion of surplus crops in the clearing of new land to support additional people. Populations have a basic 5% replacement factor to make up losses through deaths from war, famine, and plague. However, 'superior', 'excellent' and 'bumper' and 'astounding' crops can increase the replacement rate above 5%. When this happens, population growth is possible. Subject to the amount of surplus food available to 'finance' new fiefs, populations may grow to the limits provided by the bonus percentages + 1-5%. For example, an astounding crop year has a 9% replacement, of which 4% is the bonus; from 1-5% additional growth is possible. Of course, any deaths which occurred during the year are subtracted from the basic replacement rate. For instance, if 4% of the population died from plague, only 4% + 1% = 5% growth would be possible in the above example. Deaths in the population must be made up before the new growth can begin.

The costs in 'bushels' to establish new fiefs is given in the following section under 'Knight's Fees'. It should be noted that, whatever the acreage of the new holdings, the total number of acres under cultivation in the nation as a whole will be double the total population, with four times that figure in pastures (hay fields, pasture lands, and woodlands used to graze pigs).

CHARACTERS IN AGRICULTURE

It is probably clear by now that many of the foregoing statistics are most relevant at the individual character level. Characters who are yeomen or nobles will want to have as much say about what happens to

their holdings as possible. By stating the number of acres held, etc., an opportunity is given to a character to do his own deciding about what crops to plant. For instance, a yeoman could choose to breed warhorses (yield 3-18 GP per head) instead of raising pigs and chickens. Also, the variable price of crops permits characters to cut loose from the fixed income tables and gamble a little. In a good year, the payoff can be spectacular.

Knights receive more or less fixed holdings. Yeomen, however, have a chance at larger or smaller holdings than the norm:

Freehold Farmer: 20 + 7D6 acres + animals.
 Freehold Stockman: 40 Acres + right to graze 500 + 100 x 1D20 'bushels' of animals on the 'Common'.
 Petit Sergeant: 100 acres + right to graze 500 + 100 x 1D20 'bushels' of animals on the 'Common'. A Freeholder has a 30% chance of owing military service as a petit sergeant.
 Freehold Miller: 40 acres + milling rights (5% of the value of grain ground at his mill: 10,000 bushels + 1D20 bushels per year).

Knights and Lords may also choose to compute their yearly earnings by the method outlined in this article. The fief incomes given in C & S therefore do not apply to them. Rather, they compute the total crop in 'bushels', set aside food and seed, then convert the remainder into the cash value. This figure will appear to be far higher than the one given in C & S.

However there are expenses:

Per Knight in Service	= 10 SP/day
Per Squire in Service	= 1 SP/day
Per Sergeant in Service	= 5 SP/day
Per Man-at-Arms in Service	= 3 SP/day
Per Mercenary in Service	= 4 SP/day
Per Blacksmith	= 5 SP/day
Per Armorer	= 10 SP/day
Per Scribe	= 5 SP/day
Per Chaplain	= 5 SP/day
Per Servant	= 1 SP/day

The 'livings' of these many retainers is provided by the food allotted to the fief, and supports the retainer and his family. Cavalry horses are also provided for.

Manor	Kts	Sqr	Sgt	Men	Mer	Blksm	Armor	Scribe	Chaplain	Servants	SP/Day	GP/Year
SFMH1/1	—	1	15	30	—	5	—	—	—	15	66	964
SFMH2/1	10	2	30	45	—	5	—	—	—	25	117	1708
SFMH3/1	10	2	40	60	—	5	10	—	—	34	159	2321
SFMH4/1	20	3	50	75	—	5	10	—	5	44	212	3095
LFMH5/1	40	5	75	120	—	10	20	5	5	71	351	5125
Cas. 1/1	60	7	125	150	40	15	20	5	5	106	533	7782
SFMH1/2	20	3	50	75	—	5	10	—	5	30	198	2890
SFMH2/2	20	3	50	75	40	10	10	—	5	30	243	3548
LFMH3/2	40	5	75	120	40	10	20	5	5	40	360	4672
SK4/2	40	5	75	150	80	10	20	5	5	40	435	6351
SK5/2	50	6	100	150	80	15	20	5	5	40	476	6950
Cas. 1/2	60	7	125	150	80	15	30	5	5	56	533	7782
Cas. 1/3	90	10	180	150	80	15	30	5	5	106	671	9797
Cas. 2/3	90	10	180	180	80	15	30	5	5	106	701	10234
Cas. 3/3	110	12	240	399	120	15	30	5	5	125	962	14045
Cas. 4/3	140	15	300	450	200	20	30	5	15	200	1375	20075
Cas. 5/3	190	20	400	600	200	25	30	10	15	200	1690	24674
Cas. 6/3	240	25	500	750	400	25	40	10	15	250	2255	32923

It should be noted that the amounts of money allotted to vassals represent the 'livings' enjoyed by them throughout the year. In return, they owe 60 days' military service if taken beyond the borders of the manor. In defense of the manor or in the course of daily activities such as patrolling the countryside or mounting guard at the castle, feudal service is not counted. These are expected activities, fully paid for.

Further, the agricultural system permits the lord to pay for 'field costs' by providing the food necessary to keep his troops in the field. That is, the daily food requirement of his army may be computed in bushels, and it can be carried in the army's baggage train. If this method is chosen, the cost of maintaining troops in the field is their food requirement plus 20% for baggage animals, spare mounts, etc. The economy of such measures can easily be seen.

KNIGHT'S FEES:

The holdings of individual knights may be established by paying the cost (in surplus bushels of produce) of the particular holding. This merely covers population increases needed to inhabit the new fief. Structures and fortifications required by the Knight are extra. However, when computing the costs of erecting manor houses, keeps, or castles, the lord may figure into his calculations the value of the work owed him by his vassals. This is done by taking 10% of the fief's total population and multiplying it by a factor of 366 to account for 121 days of service (av. value 3 SP/day) from each household on the manor. For example, a SFMH1/1 has 800 people, so the value of work is $80 \times 366 = 29280$ SP or 1171 GP per year. In a frontier area multiply the 10% population figure by a factor of 500 to reflect the greater obligation placed on peasants and yeomen to see to fief defenses.

The following entries provide information on the cost of new fiefs in bushels of produce, the populations, food requirements and holding size of the Knight and his household, and food requirements and holding size of the yeomenry and peasants. At the last, the value of vassal labor per year is given in gold pieces (GP) which may be applied to new constructions in the fief each year.

SFMH1/1: 50,000 bushels = 800 people. Knight's household requires 6,420 bushels, supported by 950 acres + 3800 acres of pasturage. Yeomen and peasants require 14,400 bushels, supported by 1800 acres + 7200 acres of pasturage. Labor owed = 1171 GP/year.

SFMH2/1: 80,000 bushels = 1230 people. Knight's household re-

quires 11,400 bushels, supported by 1950 acres + 7800 acres of pasturage. Others require 25,728 bushels, supported by 2900 acres + 11,600 acres of pasturage. Labor owed = 1800 GP/year.

SFMH3/1: 110,000 bushels = 1650 people. Knight's household requires 13,872 bushels, supported by 2500 acres + 10,000 acres of pasturage. Others require 34,992 bushels, supported by 4000 acres + 16,000 acres of pasturage. Labor owed = 2415 GP/year. One other SFMH/1 holding must be established.

SFMH4/1: 150,000 bushels = 2150 people. Knight's household requires 18,576 bushels, supported by 3400 acres + 13,600 acres of pasturage. Others require 45,456 bushels, supported by 5300 acres + 21,200 acres of pasturage. Labor owed = 3147 GP/year. Two other SFMH/1 holdings must be established.

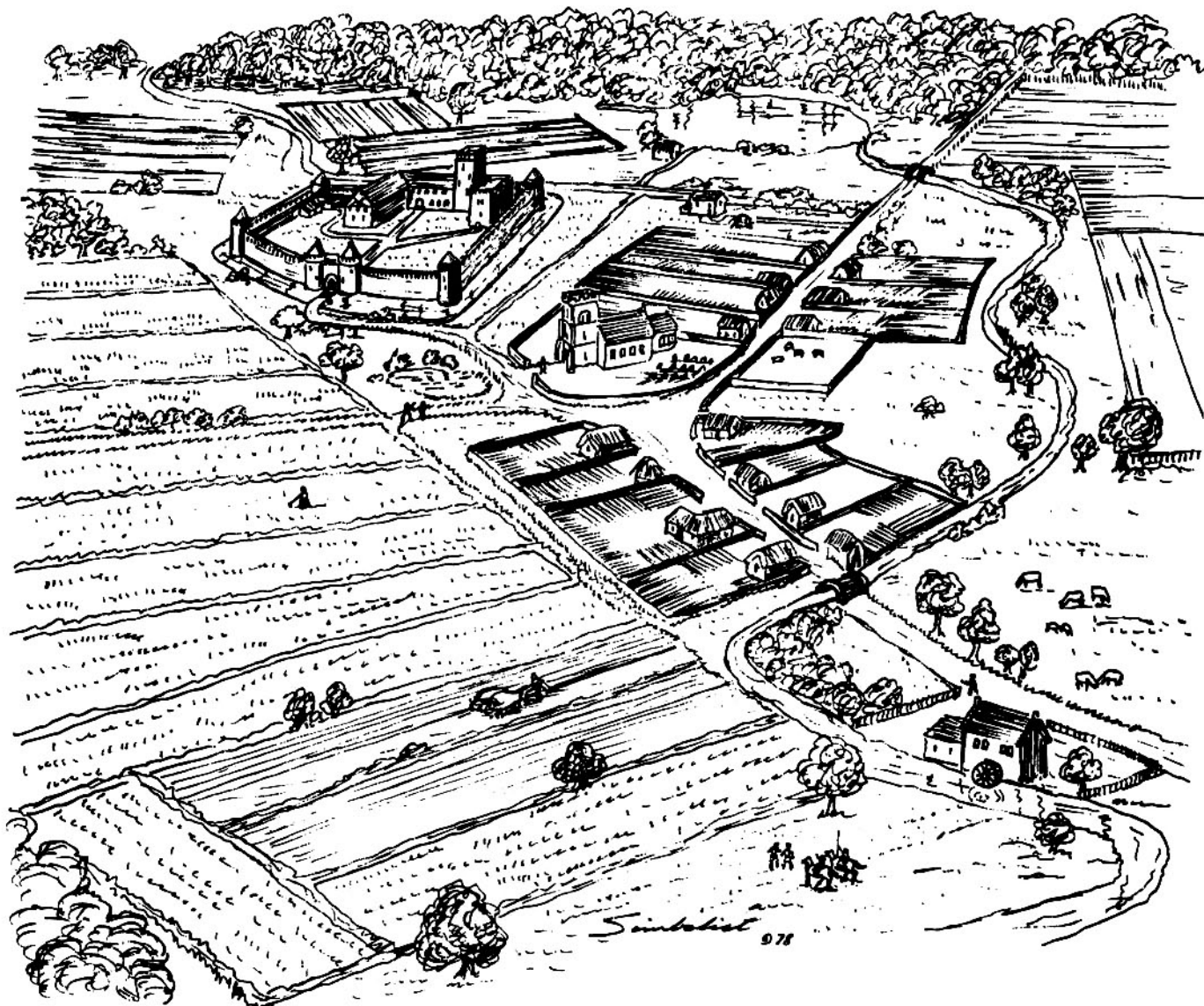
LFMH5/1: 200,000 bushels = 2910 people. Knight's household requires 29,940 bushels, supported by 5700 acres + 22,800 acres of pasturage. Others require 58,320 bushels, supported by 7000 acres + 28,000 acres of pasturage. Labor owed = 4260 GP/year. Three other SFMH1/holdings must be established.

1 Cas./1: 400,000 bushels = 5380 people. Knight Bannerette's household requires 44,436 bushels, supported by 8300 acres + 33,200 acres of pasturage. Others require 112,512 bushels supported by 13,200 acres + 52,800 acres of pasturage. Labor owed = 7876 GP/year. Four other SFMH/1 holdings must be established.

SFMH1/2: 200,000 bushels = 2150 people. Knight's household requires 18,576 bushels, supported by 3150 acres + 12,600 acres of pasturage. Others require 45,456 bushels, supported by 6300 acres + 25,200 acres of pasturage. Labor owed = 4300 GP/year.

SFMH2/2: 225,000 bushels = 2260 people. Knight's household requires 21,216 bushels, supported by 3800 acres + 15,200 acres of pasturage. Others require 45,456 bushels, supported by 6300 acres + 25,200 acres of pasturage. Labor owed = 4250 GP/year.

LFMH3/2: 275,000 bushels = 3010 people. Knight's household requires 32,340 bushels, supported by 5300 acres + 21,200 acres of pasturage. Others require 58,320 bushels, supported by 7000 acres + 28,000 acres of pasturage. Labor



- SK4/2: owed = 6020 GP/year. One SFMH/2 must be established. 325,000 bushels = 3210 people. Knight's household requires 37,140 bushels, supported by 6700 acres + 26,800 acres of pasturage. Others require 58,320 bushels, supported by 7000 acres + 28,000 acres of pasturage. Labor owed = 6420 GP/year. Two SFMH/2 must be established.
- SK5/2: 425,000 bushels = 5410 people. Knight's household requires 42,192 bushels, supported by 7600 acres + 30,400 acres of pasturage. Others require 112,512 bushels, supported by 13,000 acres + 52,000 acres of pasturage. Labor owed = 10,820 GP/year. Four other SFMH/2 must be established.
- I Cas./2: 550,000 bushels = 5530 people. Knight Bannerette's household requires 49,824 bushels, supported by 8600 acres + 34,400 acres of pasturage. Others require 13,600 acres + 54,200 acres of pasturage. Labor owed = 11,060 GP/year. Five other SFMH/2 must be established.
- I Cas./3: 650,000 bushels = 5700 people. Lord's household requires 59,616 bushels, supported by 11,000 acres + 44,000 acres of pasturage. Others require 114,576 bushels, supported by 13,600 acres + 54,200 acres of pasturage. Labor owed = 11,400 GP/year. Five other fiefs must be established.
- II Cas./3: 750,000 bushels = 7170 people. Lord's household requires 62,016 bushels, supported by 11,600 acres + 46,400 acres of pasturage. Others require 150,768 bushels, supported by 17,800 acres + 71,200 acres of pasturage. Labor owed = 14,340 GP/year. Six other fiefs must be established.
- III Cas./2: 950,000 bushels = 9200 people. Lord's household re-

quires 84,672 bushels, supported by 15,500 acres + 62,000 acres of pasturage. Others require 186,960 bushels, supported by 22,000 acres + 88,000 acres of pasturage. Labor owed + 18,400 GP/year. Seven other fiefs must be established.

- IV Cas./3: 1,250,000 bushels = 11,720 people. Lord's household requires 114,840 bushels, supported by 22,000 acres + 88,000 acres of pasturage. Others require 229,152 bushels, supported by 27,200 acres + 108,800 acres of pasturage. Labor owed = 23,440 GP/year. Eight other fiefs must be established.
- V Cas./3: 1,600,000 bushels = 15,150 people. Lord's household requires 148,560 bushels, supported by 27,500 acres + 110,000 acres of pasturage. Others require 295,344 bushels, supported by 34,400 acres + 137,600 acres of pasturage. Labor owed = 30,300 GP/year. Nine other fiefs must be established.
- VI Cas./3: 2,000,000 bushels = 19,120 people. Lord's household requires 194,280 bushels, supported by 37,000 acres + 148,000 acres of pasturage. Others require 42,000 acres + 168,000 acres of pasturage. Labor owed = 38,240 GP/year. Ten other fiefs must be established.

Close examination of the data given above will show that acreages exceed the 2 acre per person averagem but on the large scale it will be assumed that no more than 2 acres are put into cultivation per person in the nation. The above holdings are derived from several bases. First, the average crop value per acre of land was found and the number of acres was made to equal the Knight's household expenses, food requirements, and average fief revenues over the year. The holdings of the yeomanry and peasants were based on the following averages:

A Petit Sergeant's Holding is typically 100 acres + 400 acres of pasturage in the 'Common'. The holding owes 60 days' military service by a mounted fighter with chain shirt or hauberk, helmet, shield, lance or crossbow, and side arms. Often, the Petit Sergeant's eldest (or strongest) son attends him in the fief. The family is assumed to average 10 in number, with 2 yeoman families attached to it as servants and workers, or as tenants.

A Yeoman's Holding is typically 40 acres + 160 acres of pasturage in the 'Common'. The holding owes 60 days' military service by a foot-soldier with leather armor or brigantine, helmet, longbow or crossbow, and side arm. Average family = 10.

A Peasant's Holding is typically 20 acres + 80 acres of pasturage in the 'Common'. The holding owes 60 days' military service by a foot-soldier with improvised arms. Average family = 10.

Freeholders and peasants alike may have to pay 'rents' for their land. Such rents average 40 to 50 CP (1.6 SP to 2 SP) per acre each month. Peasants often elect to pay such rents in the form of extra work for the lord.

All holdings owe 121 days of work by one adult each year (av. value 3 SP/day). Thus a tenant may choose to pay hard money to reduce or eliminate the labor owed to the lord by his household.

For the purposes of individual adventures, the average family of 10 is assumed to have 1 adult male fighter who is trained to arms and 2 young adults (15-20 years old) capable of using arms as untrained fighters. In the case of the manor houses, shell keeps, and castles, the families of the lord, sergeants, and men-at-arms will each have 2 trained fighters and 1 untrained. Thus the effective garrison strength is actually more than twice the numbers printed in C & S, if the eldest sons of the lord and his retainers are counted in the balance. This fact explains why the lord could depart with most of his men on a campaign and still count on the manor being there when he returned; the castle 'militia' could be mobilized in an emergency. If players wish to reflect this effective military strength in mass combat and sieges, the additional castle defenders can be rated as class 'C' troops with arms and armor comparable to that of their fathers. Such troops will not venture beyond the borders of the manor and are typically non-combatant unless the manor is invaded or the castle besieged.

WAR AND AGRICULTURE

Wars can seriously disrupt agricultural production. Feudal lords made it a practice to burn out and kill the peasants of their enemies, and foraging armies would carry off considerable food stocks. To simulate these aspects of feudal warfare, when an area is invaded by a foraging army, use the following system. (See the section on 'Feudal

Mobilization and Logistics').

1. Food stocks equal to 1-6 times the invading army's daily requirements will be seized during each day of foraging so long as the army remains in the vicinity of a particular manor. A total of 25% of the available food can be foraged in this way. 25% of the food will be stored at the manor house or castle, which must be stormed if the food is to be captured. The remaining food was too carefully hidden to be seized.

2. To simulate peasant casualties, a foraging army will kill 1% of its number in peasants each day it is left unopposed in a region. (Losses amongst the foragers is dealt with in 'Feudal Mobilization and Logistics'). However, the defending player can:

a. Take peasants into the castle or a fortified town if the area is 'unsurprised' by the invaders as they enter the region. Alternately, the peasants will take to the woods. In either case, they will bring 11-20% of their foodstocks with them (this is deducted from forageable food, so an invading army could be left with as little as 5% of the region's total food supply for foraging).

b. Oppose the invaders with a field army. Short of a pitched battle, the defender's presence in the field will cause double casualties amongst foragers (roll twice on the attrition table given in 'Feudal Mobilization & Logistics') so long as the defender has 50-100% of the attacker's numbers in the field.

3. During the May planting season, the effect of a foraging army is even worse. An invader will prevent the planting of SEED equal to 10% of its monthly food requirement for each complete week it is foraging in an area. For instance, if an army needed 30,000 bushels per month (a large force indeed!) it could prevent 3,000 bushels from being planted each week. In an average year, this would cause a loss of crops sufficient to feed 2125 people for a year!

4. During the September harvest, a foraging army can gather in 2-12 times its daily food requirements in a day of foraging, as food and animals will be concentrated and easier to come by in large quantities.

In history, spring and fall campaigns during the planting and harvesting seasons were quite rare. The yeomanry and peasantry were notoriously reluctant to leave their lands at such times. Therefore, attackers must make up armies for campaigns in May and September solely from their feudal regulars (Knights, Squires, Sergeants, Men-at-Arms, and Mercenaries). Defenders, of course, may count on all of their people rising to drive out the invaders.

Clearly, war should be waged not only against the enemy's knights and men-at-arms, but also against his capacity to feed his people. It should also be noted that the amount of food production disrupted or the food taken by foraging cannot exceed the totals in a given region.

Feudal Trade & Commerce by Edward E. Simbalist

While trade and commerce was not the mainstay of feudal life, it did play a significant part in generating the extra revenues required by the nation to increase its power and influence. The following system is recommended for use in C & S campaigns:

Trade routes should be designated, representing the great land and river routes used for international trade. These should not be numerous. Towns with populations greater than 7,500 will benefit from being on such trading routes, with their tax revenues doubling. In addition, there is a 25% chance that such towns will be larger than normal; roll percentage dice:

On an initial die roll of 1-25, roll percentage dice again:

1-40	150% of normal population
41-75	200% of normal population
76-90	250% of normal population
91-00	300% of normal population

Militia and mercenary strengths, and tax revenues are increased in proportion to reflect the greater wealth of such large centres of trade and manufacture.

If a town is also on the seacoast, roll again to reflect the effect of maritime trade linked to a rich land or river trade route. (A town could therefore be 600% of the usual population, a maximum of 150,000 instead of the usual 250,000 maximum).

In addition to the impact of a large town's location on a trade route, all towns will be affected by the over all health of the economy. Each fall, in October, roll percentage dice and alter the revenues of the towns

according to the Trade Results Table. Add or subtract the applicable penalties or bonuses before reading the result.

FEUDAL TRADE RESULTS TABLE

Bumper crops	-10
Below average crops	+5
Crop failure	+10
Famine	+15
Nation at peace	-10
Nation at war this year	+5
War a stalemate this year	+5
Nation victorious this year	-15
Nation defeated this year	+15

1-5	Trade is booming! Increase town revenues by 100%. Individual players owning businesses make 10-60% extra.
6-10	Trade is most profitable. Increase town revenues by 75%. Individual players owning businesses make 5-30% extra.
11-15	Trade is profitable. Increase town revenues by 50%. Individual players owning businesses make 1-20% extra.
16-20	Trade is good. Increase town revenues by 25%. Individual players owning businesses make 1-10% extra.
21-75	Normal trade and town revenues.
76-85	Slight recession. Reduce all town revenues by 10%. Individual players owning businesses make 1-10% less. Employed townsmen have a 10% chance of unemployment.
86-90	Serious recession. Reduce all town revenues by 25%. Individual players owning businesses make 1-20% less. Employed townsmen have a 15% chance of unemployment.

- 91-95 Grave decline in trade and business. Reduce all town revenues by 40%. Individual players owning businesses make 5-30% less. Employed townsmen have a 20% chance of unemployment.
- 96-00 Depression! Reduce all town revenues to 25%. Individuals owning businesses make 10-60% less, and there is a 1-20% chance of bankruptcy per business owned (a bankruptcy means loss of the business). Employed townsmen have a 35% chance of unemployment, and employees are receiving 2/3 normal pay.

INDIVIDUAL CHARACTERS IN BUSINESS

Players owning townsmen may wish to go into business. A player may always enter into a business in which he has served an apprenticeship (at experience level 6). To acquire 'Master' status, a character must invest 10-100% of a year's income to establish his business (pay town license fees, guild fees, acquire stock, engage employees, etc.). He may rent or buy quarters for the business, and rents are paid out of his income. Once a business is established, bookkeeping is limited to determining daily income — subject to the effects of the Trade Results Table.

It is possible that there is not sufficient business in a particular town for a new establishment of the type contemplated by a character (25% chance in good times; 50% in recessions and depressions). If there is room for competition, a character may invest. Guild occupations and professions are governed by the Guild organization, however, and a character must influence the appropriate Guildmaster to obtain permission to start the new establishment. If there is no place for the character in the town, he has to go elsewhere or wait until next year. Characters with fathers in an established business may succeed to his Master status, however, when the 'Old Man' dies or retires.

In the fall (October) of each year, a character must reinvest 5D10% of his normal annual income in the business to replenish stock. Failure to do so invites bankruptcy at a chance of 3% for each 1% of annual income he is short of the required investment.

Depending upon player preference, in the fall (October), a determination is made on the Feudal Trade Results Table to decide his prospects for the coming year. This determination may be made once for all businessmen in the region, or it can be decided by each player. Players deciding real excitement and risk is the spice of life may choose to make a determination each month, which reflects the real ups and downs of business.

The size of a particular business varies considerably. An Apothecary, for instance, would likely have only one journeyman and one apprentice, while the shop would be a ground-floor room of a house, with sleeping quarters upstairs. An armorer would have a smithy and foundry, with 1-20 journeymen and a number of apprentices. A shipbuilder could have from 10-100 men working in his shipyard. And so on. To provide the details of every business would be to write a small book, so players are urged to arrive at their own assessment of the extent of a particular establishment to suit the nature and flavor of their particular campaign. A bit of reason and common sense will provide adequate answers.

Merchants occupy a special place in the scheme of things, for they run the risk of sending goods far afield, with wars, bandits, and pirates lurking everywhere, not to mention poor market conditions at the goods' destination. On the other hand, profits can be considerable if conditions are favorable. A Merchant must invest 50% of his normal yearly income each fall (October). He then rolls individually on the Feudal Trade Results Table each month to find out what his prospects are. If he has above average or below average business, that condition will continue until he rolls an even number on a 6-sided die, at which time he may check the Trade Results Table again to make a new determination.

Investment in a business is the sole province of the 'Commons', for it is held to be most unchivalric for a man of gentle birth to indulge in such pursuits. However, a great Lord may share in a business venture by granting a monopoly to a particular character. A monopoly is possible on rolling a 1 on a 6-sided die (one check per year with a great Lord who has been 'influenced'). The holder of the monopoly must invest

1-3 times his normal yearly income in the fall (October). At the end of the fiscal year (next September), he finds out how his business has ventured by rolling percentage dice against the Monopoly Table and modifying the result by the factors in the Feudal Trade Results Table:

MONOPOLY RESULTS TABLE

1	100% profit on investment
2	95% profit on investment
3	90% profit on investment
4	85% profit on investment
5	80% profit on investment
6	75% profit on investment
7	70% profit on investment
8	65% profit on investment
9	60% profit on investment
10	55% profit on investment
11-15	50% profit on investment
16-20	45% profit on investment
21-25	40% profit on investment
26-30	35% profit on investment
31-40	30% profit on investment
41-50	25% profit on investment
51-60	20% profit on investment
61-75	15% profit on investment
76-80	5% loss on investment
81-85	10% loss on investment
86-90	15% loss on investment
91-95	20% loss on investment
96	30% loss on investment
97	40% loss on investment
98	50% loss on investment
99	75% loss on investment
00	100% loss on investment

Lord's Tax: Roll 1-10 die

1-3	10% of profit
4-5	20% of profit
6	30% of profit
7	40% of profit
8	50% of profit
9-10	60% of profit

If a monopoly holder loses on his investment, he must nevertheless pay his Lord 10% of the anticipated profit if he wishes to retain the monopoly. Otherwise it is lost and he cannot recover it for a year. If another picks up the monopoly, he is out of luck!

Normal yearly incomes may be computed by consulting C & S. Simply multiply the daily income by 365 for the appropriate occupation.

MINING AND PROSPECTING

PROSPECTING:

Individual characters may go prospecting if they have a knowledge of metals. Except for Dwarves and Alchemists, characters may learn 1 metal and how to recognize it in nature by expending 1 Language Point and spending 1-6 months studying it. One man may explore 10 sq. miles every season (spring to fall), at the end of which time a check is made to see if a strike was made.

STRIKES:

The chance of a 'strike' is determined by the nature of the terrain being explored. Roll percentage dice at the end of the prospecting season:

Mountains:	20% per year.	Up to 2 different mines can be found per 20 sq. miles.
Hills:	15% per year.	One mine may be found per 20 sq. miles.
Rivers:	10% per year.	One mine may be found per 50 sq. miles.
Others:	10% per year.	One mine may be found per 50 sq. miles.

MINES IN MOUNTAIN AND HILL COUNTRY

Roll percentage dice if a strike is made:

01-20	COAL:	01-25 SOFT COAL:	annual profit of 100 GP x 1-10
		26-50 SOFT COAL:	annual profit of 100 GP x 1-20
		51-80 HARD COAL:	annual profit of 200 GP x 1-20
		81-00 HARD COAL:	annual profit of 250 GP x 1-20
21-40	IRON:	01-20 LOW GRADE:	annual profit of 100 GP x 1-10
		21-80 AV. GRADE:	annual profit of 200 GP x 1-20
		81-00 HI. GRADE:	annual profit of 300 GP x 1-20
41-45	MARBLE:		annual profit of 500 GP x 1-20
46-50	COPPER:	01-25 LOW GRADE:	annual profit of 200 GP x 1-10
		26-75 AV. GRADE:	annual profit of 200 GP x 1-20
		76-00 HI. GRADE:	annual profit of 300 GP x 1-20
51-60	SILVER:	01-35 LOW GRADE:	annual profit of 200 GP x 1-20
		36-80 AV. GRADE:	annual profit of 300 GP x 1-20
		81-00 HI. GRADE:	annual profit of 600 GP x 1-20
61-65	JADE:	01-40 LOW GRADE:	annual profit of 100 GP x 1-20
		41-85 AV. GRADE:	annual profit of 300 GP x 1-20
		86-00 HI. GRADE:	annual profit of 500 GP x 1-20
66-70	SEMI-PRECIOUS STONES:		annual profit of 100-1000 GP x 1-6
71-75	LEAD:	01-80 AV. GRADE:	annual profit of 100 GP x 1-10
		81-00 Quicksilver present:	annual profit of 500 GP x 1-10
76-80	TIN; ZINC; BISMUTH:		annual profit of 200 GP x 1-20
81-85	SULPHUR:		annual profit of 100 GP x 1-20
86-90	RICH STRIKE:		Roll again; all minerals 1-85 doubled in value at highest level.
91-95	GOLD!!!:	01-20 SMALL VEIN:	one season's profit of 20 GP x 1-100
		21-50 LOW GRADE:	annual profit of 1000 GP x 1-10
		51-90 AV. GRADE:	annual profit of 1000 GP x 1-20
		91-99 HI. GRADE:	annual profit of 1500 GP x 1-20
		100 GLORY HOLE:	annual profit of 2500 GP x 1-20 (+1-10 Dr. Platinum).
96	EMERALDS:		annual profit of 100-1000 GP x 1-20
97	SAPPHIRES:		annual profit of 100-1000 GP x 1-20
98	RUBIES:		annual profit of 200-2000 GP x 1-20
99	DIAMONDS:		annual profit of 300-3000 GP x 1-20
00	SEEDS OF METALS:		1-6 'seeds', with a 1% chance first off that a Mithril strike was made. (see C&S, p.78)

MINES IN RIVER VALLEYS:

Roll percentage dice if a strike is made:

01-50	COAL:	01-50 SOFT COAL:	annual profit of 100 GP x 1-10
		51-80 SOFT COAL:	annual profit of 100 GP x 1-20
		81-00 HARD COAL:	annual profit of 200 GP x 1-20
51-60	SEMI-PRECIOUS STONES:		annual profit of 100-1000 GP x 1-6
61-65	OPALS:		annual profit of 100-1000 GP x 1-10
71-75	GOLD!!!:	01-20 SMALL PLACER POCKET:	one season's profit of 100-1000 GP x 1-6
		21-50 LOW GRADE:	annual profit of 1000 GP x 1-10 for 1-10 years
		51-90 AV. GRADE:	annual profit of 1000 GP x 1-20
		91-99 HI. GRADE:	annual profit of 1500 GP x 1-20
		100 GLORY HOLE:	annual profit of 2500 GP x 1-20
76-00	Roll again, -20. If 76-80 turns up, use Mountain Mines Table.		

MINES IN OTHER REGIONS:

Roll percentage dice if a strike is made:

01-40	COAL:	01-60 SOFT COAL:	annual profit of 100 GP x 1-10
		61-90 SOFT COAL:	annual profit of 100 GP x 1-20
		91-00 HARD COAL:	annual profit of 200 GP x 1-20
41-50	IRON:	01-40 LOW GRADE:	annual profit of 100 GP x 1-10
		41-90 AV. GRADE:	annual profit of 200 GP x 1-20
		91-00 HI. GRADE:	annual profit of 300 GP x 1-20
51-55	SULPHUR:		annual profit of 100 GP x 1-20
56-68	SALTPETRE; NITRE:		annual profit of 100 GP x 1-20
69-70	NAPHTHA:		annual profit of 100 GP x 1-20
71-00	Roll again, -25. If 70-75 turns up, use Mountain Mines Table.		

MINE INVESTMENT

Minerals and ordinary metals require an investment of 50% of the maximum possible annual yield for equipment, buildings, and transport equipment (mules, wagons). Increase this figure by 1-6 in wilderland areas more than 5 hexes from a road.

Precious metals and gems require an initial investment of 10%-200% of the maximum annual yield.

MINE PERSONNEL

Mines for minerals and ordinary metals will have 1 worker for every 50 GP of profit that could be taken out of the mine (based on maximum values).

Mines for precious metals and gems will have 1 worker for every 200 GP of profit that could be taken out of the mine, and 1 Guard for every 5 workers.



MINE PRODUCTION

COAL:	2 Tons per GP of profit
IRON:	100 Dr. per GP of profit
MARBLE:	1 cu. ft. per GP of profit
COPPER:	8 Dr. per GP of profit
SILVER:	1 Dr. per 3 GP of profit
GOLD:	1 Dr. per 80 GP of profit
JADE:	50 Ct. per GP of profit
S. P. GEMS:	400 Ct. per GP of profit
LEAD:	40 Dr. per GP of profit
TIN:	75 Dr. per GP of profit
ZINC:	75 Dr. per GP of profit
BISMUTH:	5 Dr. per 4 GP of profit
SULPHUR:	175 Dr. per GP of profit
EMERALD:	60 Ct. per GP of profit
SAPPHIRE:	60 Ct. per GP of profit
RUBY:	50 Ct. per GP of profit
DIAMONDS:	40 Ct. per GP of profit
SALTPETRE:	200 Dr. per GP of profit
NAPHTHA:	1 Keg per GP of profit

MARITIME TRADE

On a national or regional scale, it will be found that towns and cities on the seacoast enjoy the full benefits of being on the greatest highway in the world — the ocean. The economic basis of maritime trade in a C & S campaign will be found in *Bireme & Galley*, a naval wargame published by Fantasy Games Unlimited which covers naval warfare from 1500 B.C. to the Battle of Lepanto. However, whether or not players become involved in the intricacies of naval conflict, the following guidelines can be used to simulate the impact of maritime commerce upon the economy of feudal states.

Each fall at the beginning of October, roll D100, adjusting the result by the modifiers given in the Maritime Trade Results Table:

MARITIME TRADE RESULTS TABLE

Land Trade is Booming.	-10
Land Trade is Depressed.	+10
Nation at War this year.	+5
Nation Victorious this year.	-5
Nation Victorious at Sea this year.	-10
Nation Defeated at Sea this year.	+10
Nation at Peace this year.	-10
War a stalemate this year.	+5

01-05 Maritime trade is booming! Increase all port revenues and customs taxes by 100%. Individual ship owners make 50% + 1-100% in addition to normal yearly income. Seamen can find employment 90% of the time, checked each month.

- 06-10 Maritime trade is exceedingly profitable. Increase all port revenues and customs taxes by 75%. Individual ship owners make 10% + 1-100% in addition to normal yearly income. Seamen can find employment 85% of the time, checking each month.
- 11-25 Maritime trade is good. Increase all port revenues and customs taxes by 25%. Individual ship owners make 10% + D20% in addition to normal yearly income. Seamen can find employment 80% of the time, checking each month.
- 26-75 Normal maritime trade. Seamen find employment 75% of the time.
- 76-80 Pirates prey on shipping. Individual owners run a 10% risk per ship owned of having a vessel taken during this year.
- 81-90 Depressed maritime trade. Reduce all port revenues and customs taxes by 10%. Individual ship owners run a 20% chance of losing 1-20% of their yearly income due to lost trade. If players cannot make up the difference, they must borrow the money (40% chance) or else sell a vessel to pay debts. Seamen can find employment 60% of the time.
- 91-00 Ruinous depression of maritime trade. Reduce all port revenues and customs taxes to 50% of normal. Individual ship owners run a 40% chance of losing 4-40% of their yearly income due to lost trade. If players cannot make up the difference, they must borrow the money (20% chance) or else sell a vessel to pay debts. Seamen can find employment 50% of the time.

Ship owners receive their incomes over the year at the daily rate given in the tables below. To find the yearly income, multiply the daily rate x 240 (sailing season is from April to November).

Profits (ship owner income) are directly related to the types and tonnages of vessels owned by characters. Clearly, the more ships a character has, the richer he will be:

Mediterranean-type trade routes:	10-20 GP/ton of shipping per year or 1.04 — 2.08 SP/day.
Atlantic-type trade routes:	5-10 GP/ton of shipping per year or .52 — 1.04 SP/day.
Large vessels (250 tons+):	+10 GP/ton of shipping per year or 1.04 SP/day.
Rich trade routes:	Variable, but at least 150% above usual profits. Only Great Cots, large Carracks, Nefs, and Galee di Mercanzia will be engaged on such trade.

Players desiring to take special risks in the hopes of greater rewards may also use the following system as an alternate to the foregoing. Unless a specific cargo is contracted for delivery by another player (rates are negotiable but usually are 10% of value + 10% per 200 miles or part

of voyage; double if in wartime or piracy; triple if into a warzone, such as a besieged seaport), no specific cargo is required. Rather, it is assumed that a cargo can be acquired in any port at the employment percentages given for seamen in the Maritime Trade Results Table. Such general cargo values are:

75% of ship's values + 5-30 GP per ton for ships under 250 tons.
75% of ship's values + 10-60 GP per ton for ships over 250 tons.

75% of ship's values + 10-100 GP per ton for ships over 250 tons on very rich trade routes.

If no cargo is available, one may be purchased by the owner and transported at his own risk. In such instances, the following profits/losses on the voyage can be anticipated. Roll D100 at the end of the voyage, when the cargo is sold:

INDIVIDUAL VOYAGE RESULTS TABLE

	Mediterranean Trade	Atlantic Trade	Large Vessels*	Rich Trade Route**
01-10	3 SP/ton/day	2 SP/ton/day	+1.5 SP/ton/day	+50-500% of normal profit
11-25	2.5 SP/ton/day	1.5 SP/ton/day	+1.3 SP/ton/day	+40-400% of normal profit
26-55	2.1 SP/ton/day	1.1 SP/ton/day	+1.1 SP/ton/day	+10-100% of normal profit
56-65	1.8 SP/ton/day	0.9 SP/ton/day	+1.0 SP/ton/day	+10-50% of normal profit
66-70	1.0 SP/ton/day	0.5 SP/ton/day	+0.5 SP/ton/day	+10% of normal profit
71-85	0.5 SP/ton/day	0.2 SP/ton/day	+0.2 SP/ton/day	+10% of normal profit
86-90	Break even	Break even	Break Even	Break even
91-95	-5% of cargo value	-5% of cargo	-3% of cargo	-10% of cargo
96	-5% of cargo value	-5% of cargo	-10% of cargo	-20% of cargo
97	-10% of cargo value	-10% of cargo	-15% of cargo	-25% of cargo
98	-20% of cargo value	-20% of cargo	-20% of cargo	-30% of cargo
99	-30% of cargo value	-30% of cargo	-25% of cargo	-35% of cargo
00	-50% of cargo value	-50% of cargo	-30% of cargo	-40% of cargo

*Large vessels (250+ tons) add this profit factor to the basic profit/ton for Mediterranean or Atlantic-type trade routes. Losses are totals for the ship, however, and Mediterranean or Atlantic values are ignored.

**Rich Trade Routes add this profit factor to the basic profits + Large Vessels profits. Losses are added to those of large ships (small vessels do not make such voyages).

The number of days a voyage will take depends upon sailing conditions, as given in the complete naval rules, *Bireme & Galley*. However, for players not engaged in the naval campaign, the following average voyage speeds should be used to judge the times required by different vessels to make a successful voyage:

Galee di Mercanzia:	4 knots or 4.6 mph for 110 miles in a day.
Small Cog:	3.9 knots or 4.5 mph for 108 miles in a day.
Large Cog:	3.6 knots or 4.2 mph for 101 miles in a day.
Great Cog:	3.0 knots or 3.5 mph for 84 miles in a day.
Nef:	3.1 knots or 3.6 mph for 86 miles in a day.
Carrack:	4.2 knots or 4.8 mph for 115 miles in a day.

All of these voyage times are based upon the sailing speeds of vessels in a good breeze. In good winds, the large vessels make better time than small ones.

The distance between ports should be computed. That gives the number of days the vessel will be at sea to have a respectably profitable voyage. Roll 1D6. A result of 1 means a 'fast passage', while a 5 or 6 means a 'slow passage'.

A fast passage will cut 1-10% from the voyage time of a Small or Large Cog, and 5-30% for Great Cogs, Nefs, and Carracks. (Roll 1D10 and 5/D6 respectively).

A slow passage will add 5-30% to the voyage time of a Small or Large Cog, and 3-18% for Great Cogs, Nefs, and Carracks. (Roll 5/D6 and 3/D6 respectively).

For each 1% faster passage gained, subtract 1 from the D100 rolled for the Individual Voyage Results Table. For each 1% slower passage, add 1 to the D100 roll. This will represent the added profit or loss caused by quick voyages or delays.

It takes 1 day per 20 tons for vessels under 250 tons to load and unload cargoes. Vessels of 250 tons or more take 1 day per 50 tons to load and unload. Thus the next voyage cannot be begun until a cargo has been unloaded and a new one taken aboard, which reduces the total

time a ship can be at sea.

Vessels are also subject to loss, with small vessels being more likely to be sunk in storms or captured by pirates or enemies. All vessels have a basic chance of 1-10% of being lost at sea per voyage. This chance can be modified in several ways:

Size of Vessel:	Reduce chance by -1% for each 100 tons of displacement until 5% is reached.
Piracy:	Increase chance of loss by 1-6% in times when piracy is common in a region of sea to be traversed or in the region from which a cargo is taken to which it is destined to be unloaded.
War:	Increase chance of loss by 1-10% unless the ship is under escort by a vessel of war.
Superior Ships and crews:	Reduce chances of loss by 1-6% if vessels are of 'elite' or 'superior' construction, with a minimum chance of 1% for possible loss. Veteran crews produce similar reductions.
Voyage Time:	Increase chance of loss by 2% for each 10 days at sea without touching port.

The cost of ships varies considerably, and a complete list is given in *Bireme & Galley*. The following prices are perhaps most useful for a feudal campaign:

Small Cog (30-150 tons)	18 GP/ton
Large Cog (200-450 tons)	20 GP/ton
Great Cog (500-1500 tons)	25 GP/ton
Nef (2000 tons)	25 GP/ton
Carrack (200-1000 tons)	30 GP/ton
Galee di Mercanzia (700 tons)	30 GP/ton

Superior vessels may be constructed at 125% of cost, and elite vessels at 150% of cost. They are also 5% and 10% faster than other ships of their type.

The Chivalry & Sorcery Battle Systems by Edward E. Simbalist

The following battle systems are a significant revision—indeed a total redesigning of those in the original C&S—and should be thought of as an entirely new combat system for miniatures warfare.

The life of a fantasy role playing game includes conflict on a large scale, and thus the chance of battle looms large, especially in a role playing game in which knights and barbarian warriors are prominent. The following systems attempt to provide for a wide range of possible situations, from Ancient to Feudal to Renaissance battle.

Those players not as much in love with wargaming as the author might also do well to see the mass battle algorithms developed by Phil Macgregor in *Sourcebook II*—quite satisfactory pencil and paper alternatives to wargaming with miniature figures.

Scale = 10 paces = 2.5cm/1 inch (25mm figures).

Turn = ½ hour of simulated combat/movement.

1.01 TROOP STANDS

All miniature figures should be mounted on bases, hereafter known as 'stands'. The best stands are made from thin balsa, trimmed to a proper size, although heavy card stock might be used with less satisfactory results. Contact cement can be used to affix the miniatures to their stands.

Three-man stands are recommended for most infantry and cavalry figures, with one stand broken down into a 2-figure and a 1-figure stand to make casualty removal simpler. Specialty figures and any figures with large frontages should be mounted singly.

Most troop frontages correspond closely with the existing body of wargaming rules for Ancients and Medievals, permitting the use of armies already painted and mounted. Frontages are given per figure. Recommended numbers of figures on each stand are also given:

Troop Type	Figures/ Stand	25mm Figures		15mm Figures	
		Front	Depth	Front	Depth
Very Close Order Cavalry . . .	1,2,3	15mm	40-50mm	7½mm	30-40mm
Close Order Cavalry	1,2,3	20mm	40-50mm	10mm	30-40mm
Loose Order Cavalry	1,2	25mm	40-50mm	12mm	30-40mm
Open Order Cavalry	1	30mm	40-50mm	15mm	30-40mm
Chariots	1	40mm	75mm+	20mm	40mm+
Elephants	1	60mm	75mm+	30mm	40mm+
Very Close Order Infantry . . .	1,2,3	12mm	20mm	6mm	20mm
Close Order Infantry	1,2,3	15mm	20mm	7½mm	20mm
Loose Order Infantry	1,2	20mm	25mm	10mm	20mm
Open Order Infantry	1	30mm	25mm	15mm	20mm
Pack Train	1	30mm	40-50mm	15mm	30-40mm
Wagons/Carts	1	30mm	75mm+	15mm	40mm+
Light War Engines	1	40mm	75mm+	20mm	40mm+
Heavy War Engines	1	60mm	75mm+	30mm	40mm+
Very Heavy Catapults	1	80mm	75mm+	40mm	40mm+
Light Bombards	1	40mm	75mm+	20mm	40mm+
Heavy Bombards	1	60mm	75mm+	30mm	40mm+
Light Guns	1	40mm	75mm+	20mm	40mm+
Medium Guns	1	60mm	75mm+	30mm	40mm+
Heavy Guns	1	60mm	75mm+	30mm	40mm+
Seige Tower (small)	1	60mm	75mm+	30mm	40mm+
Seige Tower (large)	1	80mm	75mm+	40mm	40mm+
Penthouse	1	60mm	75mm+	30mm	40mm+
Personality (on foot)	1	15mm	20mm	7½mm	20mm
Personality (mounted)	1	20mm	40-50mm	10mm	30-40mm

It should be noted that the depth of stands is not particularly critical, but frontages should be as accurate as possible.

Crewed weapons (artillery) contain only the weapon miniature on the stand. The crewmen are separate figures which can be deployed on the stand or immediately behind it. These artillery figures are used primarily for melee and to keep track of casualties.

Very Close Order Cavalry include regular and semi-regular heavy cavalry trained to ride into battle stirrup to stirrup. Except perhaps for Cataphracts, these troops will be seen only in very late Feudal and Renaissance armies.

Close Order Cavalry include most medium and heavy cavalry types trained and equipped for shock action with lance and sword.

Loose Order Cavalry include light and light-medium cavalry in the armies of most nations.

Open Order Cavalry include light and light-medium cavalry in the armies of the barbarian nations—but not the Mongols, who had disciplined cavalry who often maneuvered in loose order.

Very Close Order Infantry include medium and heavy troops armed with 9'-18' spears and pikes and formed into phalanx-type units. Such troops would be found in Greco-Roman Ancient Armies, some Byzantine armies, crack late Feudal pike units, and in Renaissance armies.

Close Order Infantry include most medium and heavy infantry.

Loose Order Infantry include light-medium infantry and missile troops unable to skirmish but massed somewhat to bring a greater

weight in fire and melee, while still enjoying light troop movement.

Open Order Infantry include light-medium infantry and missile troops deployed to skirmish and harass the enemy.

A standard 25mm infantry or cavalry figure represents about 20 men, drawn up in a theoretical formation 5 files wide and 4 ranks deep to cover the area of ground represented by the base at a ground scale of 10 paces = 1 inch/2.5cm. Non-standard types, like chariots and elephants, are a more complex matter. Generally, elephant and chariot miniatures represent 8-10 animals or vehicles plus their crews (who are represented by appropriate foot figures mounted on the elephants or in the chariots). War engines and guns are rather more variable in the number of weapons represented. These are detailed in the Troop Tables.

A standard 15mm infantry or cavalry figure represents about 50 men, drawn up in a theoretical formation 7 files wide and 7 ranks deep, plus an officer, to cover the area of ground represented by the base at a ground scale of 10 paces = 1 inch/2.5cm. In such a scale, pike-armed troops fight in 2 ranks of figures in melee, and all others fight in a single rank. Also, a single rank of figures in 15mm counts as the equivalent of a double rank in 25mm scale. Elephant, chariot, and war engine figures count as the same numbers of animals/vehicles/weapons/crew as in 25mm scale.

A standard 30mm stand can be used for most 15mm troops, with 5, 4, 3, 2 figures respectively for frontages of 6mm, 7½mm, 10mm, and

15mm. Skirmishing light and light-medium infantry, light cavalry, elephants, chariots, and other large front figures can still be mounted singly for ease of handling and positioning.

It should be noted that a ground scale of 10 paces = 1cm will permit the fielding of armies numbering 25,000 or more on a side (500 figures per army). There will be a lot of empty space on a wargaming table of 4'x8' as well, permitting proper flanking actions, marching and counter-marching, etc., which are characteristic of major battles.

Alternatively, the 10 paces = 1 inch/2.5cm scale can be retained for 15mm miniatures. This makes each figure equal to 10 men, and also halves the numbers present in elephant, chariot, and weapons stands.

1.02 FANTASY TROOP STANDS

If one is involved in a fantasy role playing campaign and also interested in wargaming, the following fantasy troops types may be fielded:

Fantasy Troop Type	Stand	25mm Figures		15mm Figures	
		Front	Depth	Front	Depth
Elf LI/LMI	1,2,3	20mm	25mm	10mm	20mm
Elf MI/HI/HAI	1,2,3	15mm	20mm	7½mm	20mm
Elf MC	1,2,3	20mm	40-50mm	10mm	30-40mm
Elf AC/HAC	1,2,3	20mm	40-50mm	7½mm	30-40mm
All Dwarf Infantry	1,2,3	12mm	20mm	6mm	20mm
Gnome/Haefling LI/LMI	1,2	20mm	20mm	10mm	20mm
Gnome/Haefling MI/LHI/HI	1,2,3	15mm	20mm	7½mm	20mm
Centaur LC/LMC	1,2	25mm	40-50mm	12mm	30-40mm
Centaur MC/LHC/HC/AC/HAC	1,2,3	20mm	40-50mm	10mm	30-40mm
Saurian LMI	1,2	25mm	25mm	12mm	20mm
Saurian MI/HI/HAI	1,2,3	20mm	25mm	8½mm	20mm
Saurian Cavalry	1,2	20mm	50mm	10mm	50mm
Triceratops	1	60mm	75mm+	30mm	40mm+
Goblin LI/LMI	1	30mm	25mm	15mm	20mm
Goblin MI/LHI/HI	1,2,3	20mm	25mm	10mm	20mm
Wolf-Mounted MI	1,2	25mm	40mm	12mm	20mm
Trolls	1	30mm	25mm	15mm	20mm
Giants/Ogres	1	50mm	50mm	25mm	25mm
Undead Infantry	1,2,3	15mm	20mm	7½mm	20mm
Ghouls/Vampires/etc	1	20mm	20mm	10mm	20mm
Spectre/Wraith (SHAI)	1	20mm	20mm	10mm	20mm
Spectre/Wraith (SHAC)	1	20mm	40-50mm	10mm	30-40mm
Gargoyles	1	25mm	25mm	12mm	20mm
Balrogs	1	40mm	40mm	20mm	20mm
Djinn/Ifrid	1	40mm	40mm	20mm	20mm
Demonic Infantry	1,2,3	15mm	20mm	7½mm	20mm
Demonic Cavalry	1,2,3	20mm	40-50mm	10mm	30-40mm
Elementals	1	100mm	100mm	50mm	50mm
Shamanistic Totem	1	25mm	25mm	12mm	20mm
Werebeast w. Beasts	1	30mm	30mm+	15mm	20mm+
Great Eagle/Roc	1	40mm	40mm+	20mm	20mm+
Great Roc	1	75mm	75mm+	40mm	40mm+
Young Dragon	1	40mm	75mm+	20mm	40mm+
Mature Dragon	1	50mm	75mm+	25mm	40mm+
Old Dragon	1	60mm	75mm+	30mm	40mm+
Ancient Dragon	1	75mm	100mm+	40mm	50mm+
Great Wyrm	1	75mm	100mm+	40mm	50mm+

There is, of course, a relative dearth of 15mm fantasy figures as yet. However, adaptation of many existing figures can produce good results. Also, many fantasy types are really variations on standard troops and can easily be made to look authentic with little more than the proper painting. Giant figures can be easily fashioned from 25mm figures when gaming in 15mm scale. 54mm scale figures make excellent giants for 25mm scale armies.

1.03 TROOP TYPES: CAVALRY

Cavalry forces are sub-divided into a number of different classes, based upon the armor worn and the size of horse ridden.

SHAC: SUPER HEAVY ARMORED CAVALRY are close/very close order troops clad in full plate armor and perhaps carrying shields—although shields are often unnecessary because Renaissance plate is shield-equivalent in itself. Arms: heavy lance and heavy sidearms. Renaissance SHAC may carry a brace of wheellock pistols. Mount: heavy/very heavy warhorse, usually armored all around with platemail/plate. Dismounted: SHAI close order infantry.

VHAC: VERY HEAVY ARMORED CAVALRY are close order troops clad in platemail and usually carry shields. Arms: heavy lance and heavy sidearms. Mount: heavy/very heavy warhorse, usually armored all around with mail/platemail. Dismounted: SHAI close order infantry. These are classic late Chivalry.

HAC: HEAVY ARMORED CAVALRY are close/very close order troops clad in full chainmail, with closed helms and often some plate to give protection to elbows/shoulders/knees, and/or wearing splint surcoats. Shields are typically carried. Arms: heavy lance and heavy sidearms. Mount: heavy warhorse, often barded all around with quilted/leather/mail armor. Dismounted: VHAI close order infantry. These are classic middle-period Chivalry.

AC: ARMORED CAVALRY are close/very close order troops clad in 3/4 hauberks of scale or mail, with open helms and typically carrying shields. Arms: light or heavy lance, sword, mace. Mount: heavy/medium-heavy warhorse which may be armored frontally or all around with quilted/leather/scale/mail armor. Dismounted: HAI close order infantry. These are classic early Feudal Chivalry and Cataphracts. Alternately, 'armored' cavalry of the Renaissance are very heavy horse clad

in cuirasses and helmets, with leather and plate guard-pieces protecting the arms and legs. Shields are rarely carried. Arms: light lance, sword, and a brace of wheellock pistols. Mount: heavy horse, rarely armored (only frontally if barded at all). Dismounted: HAI close order infantry.

HC: HEAVY CAVALRY are close/very close order mounted troops clad in plate cuirasses and helmets, sometimes with greaves protecting the lower legs, and usually carrying shields. Mount: medium-heavy warhorse, rarely armored but may have quilted/leather all around or scale/mail frontal armor. Arms: light lance, sword. Alternatively, such troops are Renaissance heavy horse, clad in cuirasses and helmets, but rarely carrying shields. Arms: light lance, sword, and a brace of wheellock pistols. Dismounted: HI close order infantry.

LHC: LIGHT HEAVY CAVALRY are actually a type of medium cavalry clad in corselets of scale/banded iron/light mail or else 3/4 ring-mail/laminated oriental armor and open helmets. They usually carry shields. Arms: light lance, sword. Mount: medium warhorse, rarely armored but may have quilted/leather/horn/scale/mail frontal armor or all around barding of quilt/leather. Dismounted: LHI close order infantry.

MC: MEDIUM CAVALRY are close order mounted troops clad in corselets of hardened leather (cuirboilli), coats of leather reinforced with rings protecting the torso, or splint brigantines, open helmets, and usually carrying shields. Arms: light lance, sword. Mount: medium/light-medium warhorse, almost never with armor but may have quilted/leather/horn frontal armor. Dismounted: MI close order infantry.

LMC: LIGHT MEDIUM CAVALRY are actually a type of light cavalry clad in quilted/leather jackets and light open helmets, and usually carrying shields. Arms: light lance, sword. Mount: pony/light horse, never armored. Dismounted: LMI loose order infantry.

LC: LIGHT CAVALRY are unarmored troops who may be wearing light helmets and carrying shields. Arms: light lance, sword. Mount: pony/light horse, never armored. Dismounted: LI open order infantry.

1.04 TROOP TYPES: INFANTRY

Infantry forces are sub-divided into several classes, based upon the armor worn and the density of formation usually adopted.

SHAI: SUPER HEAVY ARMORED INFANTRY are clad in full platemail/full plate armor and may carry shields. The troops are usually close order infantry formed from dismounted SHAC/VHAC.

VHAI: VERY HEAVY ARMORED INFANTRY are clad in full chainmail, often reinforced with plate elbow/shoulder/knee protection and/or splint surcoats, and usually carrying shields. The troops are usually close order infantry formed from dismounted HAC.

HAI: HEAVY ARMORED INFANTRY are clad in 3/4 hauberks of scale or mail, or else plate cuirasses with leather/metal protection for arms and legs, helmets, and carry shields. The troops are close/very close order infantry formed from dismounted AC or else are crack heavy infantry of the late Feudal and Renaissance periods.

HI: HEAVY INFANTRY are clad in plate cuirasses, helmets, and perhaps greaves to protect the lower legs, and usually carry shields. The troops are close/very close order infantry formed from dismounted HC or else are superior heavy infantry of the Ancient to Renaissance periods.

LHI: LIGHT HEAVY INFANTRY are actually a type of medium infantry if regular/semi-regular (medium movement), and heavy otherwise. The troops are clad in corselets of scale/banded iron/light mail or else 3/4 hauberks of ringmail or oriental laminated armor, helmets, and usually carry shields. The troops are close/very close order infantry formed from dismounted LHC or else are foot troops. Roman legionaries are characteristic of the medium infantry version of LHI.

MI: MEDIUM INFANTRY are clad in corselets of hardened leather (cuirboilli), coats of leather reinforced with rings protecting the torso, or splint brigantines, helmets, and usually carrying shields. The troops are close/very close order infantry formed from dismounted MC or else are foot troops.

LMI: LIGHT MEDIUM INFANTRY are actually a type of light infantry clad in leather or quilted jerkins, light helmets, and carrying shields. The troops are loose order infantry formed from dismounted LHC or else are foot troops. The type is highly characteristic of most levies and the standard infantry of most barbarian nations.

LI: LIGHT INFANTRY are unarmored, but may have light helmets and carry shields. The troops can be formed either in loose or open order, and they represent dismounted LI or else skirmish troops and the standard foot troops of 'primitive' societies. They can also represent 'rabble' if of Class-D.

1.05 ARTILLERY

There are a number of different artillery weapons available:

LIGHT BOLT THROWERS are 3-span or 1-cubit ballista-type spear-throwers, on the Roman scorpion model. Each stand represents 10 bolt

throwers crewed by 40 men (2 figures). Troops are of an infantry class corresponding to their armor. A 'battery' may be packed by 1 figure of horse/mule pack animals. Rate of fire is once every other turn, and the units can be moved ½ foot distance and fired. Facing can be changed up to 180° in a turn without interfering with fire.

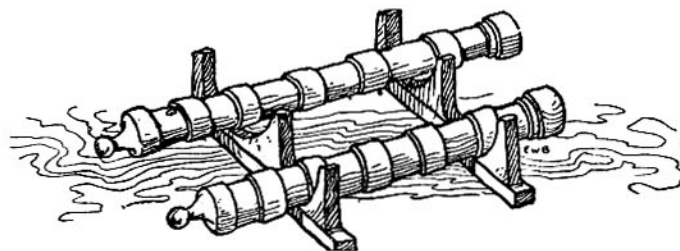


HEAVY BOLT THROWERS are heavy ballistas firing either several spears at once or else a heavy missile. Each stand represents 8 heavy ballistas crewed by 60 men (3 figures). The ballistas are usually wheeled and can be towed by 4 mules each (32 are assumed to be in the battery). Rate of fire is once every other turn. Fire will be delayed one turn if the ballistas are moved. Facing can be changed up to 90° in a turn without interfering with fire.

CATAPULTS are heavy stone-throwing engines. Each stand represents 6 catapults crewed by 60 men (3 figures). The catapults are usually wheeled and can be towed by 8 mules or 6 oxen each (36 oxen are assumed in most batteries). Rate of fire is every other turn, but a delay of an additional turn occurs if any movement or change of facing is required.

VERY HEAVY CATAPULTS include such monster stone throwers as onagers and trebuchets. Each stand represents 4 heavy war engines, crewed by 80 men (4 figures). The weapons are not mobile and must be taken down for transport, requiring about 64 oxen and 4-8 wagons, which are included in the stand. Assembly requires 4 turns; dismantling 2 turns. Rate of fire is every third turn, but any change of facing adds an extra turn. Such weapons are essentially siege artillery, most useful against fortifications.

LIGHT BOMBARDS are early, sledge-mounted guns. Each figure represents 4-6 bombards, served by 40 men (2 figures), and there are also 36 oxen and 4 wagons included in the stand. Rate of fire is every other turn, but a change of facing or any movement adds one turn.



HEAVY BOMBARDS are early, sledge-mounted guns. Each figure represents 4-6 bombards, served by 60 men (3 figures), and there are also 64 oxen and 4-6 wagons included in the figure. Rate of fire is every third turn, but any change of facing requires an extra turn. It also takes one move to set up the bombards, so a movement to a new position means that the weapons cannot fire until the second turn after movement.

LIGHT FIELD GUNS are 16th century 4-pdr. guns on the earliest field carriages—along the lines started by Gustavus Adolphus. Each figure represents 4-6 guns, served by 40 men (2 figures), and there are 30 horses/mules and 2-4 wagons included in the stand. Rate of fire is every turn, and a change of facing up to 90° is possible without interfering with fire. A greater change of facing has a 50% chance of interfering and delaying fire for 1 turn (roll 1D6, with 1, 2, 3 = no delay). The guns may also be pushed forward and fired without interference, but towed movement has a 50% chance of interfering with fire at the end of the turn.

MEDIUM FIELD GUNS are heavier wheeled guns, usually in the 8-pdr. to 16 pdr. category. Each figure represents 4-6 guns, served by 60 men (3 figures), and there are also 48 mules and 4 wagons included in the stand. Rate of fire is every second turn, and a change of facing up to 45° is possible without interfering with fire. A greater change of facing has a 50% chance of interfering and delaying fire for 1 turn (roll 1D6, with 1, 2, 3 = no delay). The same is true if the guns are pushed

forward. Towed movement requires a turn to set up at the end of movement before fire can be resumed.

HEAVY SIEGE GUNS are battering pieces of heavy calibre. Each figure represents 4-6 guns, served by 60 men (3 figures), and there are also 72 mules and 4 wagons included in the stand. Rate of fire is every second turn. Any change of facing has a 67% chance of interfering and delaying fire for 1 turn (roll 1D6, with 1, 2, 3, 4 = no delay). The same is true if the guns are pushed forward. Towed movement requires 2 turns to set up at the end of movement before fire can be resumed.

2.01 UNITS

A 'unit' is defined as a formed body of troops. To make wargaming mechanics work easily, the troops should be uniformly armored and equipped for battle. Experience has also showed that formed infantry and cavalry units should contain between 18 and 36 figures, while missile and skirmish units should contain between 12 and 18 figures. In any event, no more than 50 figures should be allowed to form a unit.

A unit will maneuver as a single body, with all troops maintaining contact. The unit should have a command stand, consisting either of a distinctive officer figure or else a standard bearer—which represents the unit's 'colors'.

The unit tests morale as a single body, including 'detached' troops, who may be up to 60 paces away from the main force containing the command stand.

2.02 TRAINING LEVELS

The training and discipline received by troops will often have a considerable effect upon their performance in the field:

REGULAR TROOPS are soldiers typically raised, paid for, and under the control of a central government of a well-organized state. They are effectively national standing armies, full-time professionals who do nothing except train in the military arts and wage disciplined wars against their nation's enemies. They enjoy a -1 advantage in morale test 3D6 rolls and a +1 advantage in melee when fighting troops of lower training levels. Historical examples are Spartan hoplites, Macedonian phalangites and Companion cavalry, Imperial Roman legionaries, some Byzantine field troops to the end of the 10th century, and crack Renaissance infantry and cavalry.

SEMI-REGULAR TROOPS are soldiers again raised, paid for, and under the control of a central government or a powerful (and wealthy) Lord able to maintain a standing body of troops. Such troops may not necessarily train full time, but they possess considerable military discipline and skill. Semi-regular troops enjoy a -1 advantage in morale test 3D6 rolls and a +1 advantage in melee when fighting irregular troops. Some historical examples are Athenian hoplites, Republican Roman legionaries, elite units of most ancient nations, the best class of Japanese Samurai, the best units of the Mongol Empire, Saxon/Nordic huscarls, and a few of the better Renaissance infantry units.

IRREGULAR TROOPS is a catch-all category which includes several grades of soldier:

Disciplined Irregulars are troops who have received a fair degree of training in the military arts and possess reasonably good skill and discipline in battle. They almost qualify as semi-regulars. In battle, they enjoy +1 against trained irregulars and chivalrics, barbarians, and levies in melee combat. Historical examples are most Greek hoplites and light troops, most of the better mercenary units of Ancient times, most Mongol warriors, most Samurai, Roman auxiliaries and militia, and crack late Feudal and Renaissance units like Swiss Pike, Landesknechts, etc., as well as elite medieval troops.

Trained Irregulars are troops with military training but perhaps lacking in the finer points of tactics and formation discipline. In battle, they enjoy a +1 against barbarians and levies. Historical examples are most Feudal Chivalry, feudal men-at-arms, most Nordic and Saxon warriors, and militia units from large centers and most Ancient nations.

BARBARIANS & LEVIES are the bulk of the remaining troops—men with perhaps considerable personal skill with arms but often sadly lacking in formation discipline and tactical expertise. The forces of most barbarian nations in history, militia levies of a great many Ancient nations, and Feudal/Renaissance militias, yeomanry, and peasant levies fall into this category.

In addition to the above classifications of training and general discipline and tactical skill, troops may also be rated:

Elite: Such troops are representative of the finest troops in the nation. Examples are the personal Guard of the Kings of Sparta, the Theban Sacred Band, the Macedonian Companion Cavalry, the Roman Praetorians (at their best), the Domestici et Protectories of the Late Roman Empire, the Byzantine Varangian Guard, the Anglo-Saxon Huscarls, Mongol Keshik Cavalry, and the Knights and Sergeants of Medieval Military Orders. It is also possible for other nations to have elite forces representing the personal bodyguard of the ruler or of a great

warlord. In battle, elite troops enjoy +1 in melee combat.

Fanatic: Such troops are, for whatever reason, especially brave or ferocious—though they may not necessarily be seeking death. They may simply exhibit ferocity, as in the case of Nordics. Or they might be motivated by uncontrolled religious fervor or a savage desire for revenge against a hereditary enemy. Historical examples include the Arabs in the early period of Islamic expansion, Vikings, Japanese Samurai, the best of the Medieval Military Orders, the Swiss pike units, and the like. In battle, fanatics enjoy +1 in melee combat. Fanatic designation should be determined by the referee (if there is one), or else by mutual agreement of the players, if there is any doubt.

Berserks: Such troops are special fanatics who cannot number more than 12 figures (240 men) under normal circumstances and represent a unit in themselves. They are utterly fearless and check morale only when ordered to charge/melee—on the first turn of close combat. In most cases, Berserkers should be limited to Nordics and fantasy barbarians on the Nordic model. Heroes and SuperHeroes are rated as Berserkers as well. An Elite Guard unit may also go Berserk if their commander is slain. Berserkers enjoy a -3 in 3D6 morale tests and a +2 in melee combat.

2.03 COMMANDERS

In any battle, each side will have an Army Commander. He might be an Emperor, King, Lord, or General.

(1) A Commander is represented by a single, distinctive figure which stands for himself and 19 staff officers and bodyguards.

(2) A Commander is rated as an Elite Class A fighter for melee and morale purposes.

(3) A Commander may rally or steady any troops to which he has attached himself, subtracting -2 from 3D6 and 2D6 morale test rolls of any unit in which he is present. If such a unit breaks in morale, he may either stay with it to attempt to rally the troops or he may leave it immediately to avoid being carried off in the event he cannot rally them. He may also join any broken unit to attempt a rally, but again at risk of being carried off by the fleeing troops if he fails.

(4) A Commander moves at maximum light infantry speed if on foot, at maximum light cavalry speed if on horseback, and at the maximum speed of the type depicted if otherwise mounted. Such movement may be sustained every turn, subject only to terrain considerations.

(5) A Commander melees as 2 figures of the type depicted. He runs no risk of being slain or captured until all the troops in his unit have been slain and he is left a solitary figure. In that case he fights as 2 figures until his figure has suffered 2 figures in casualties. He may also be engaged by a Hero or SuperHero figure in personal combat during a larger melee, or by the opposing Commander figure.

(6) Only one Army Commander will be present on each side. If it is an allied army with several contingents, the sub-Commanders are depicted but fight as ordinary figures until the Army Commander is slain/captured. At that time, one of the sub-Commanders will succeed to supreme command of the troops who have remained steady after the catastrophe of losing the Army Commander.

(7) A Hero/SuperHero can serve as an Army Commander, but without additional combat strength or morale effects beyond those he already enjoys.

If desired, command stands can be prepared, complete with a standard bearer and perhaps a musician or fighting man to accompany the Army Commander figure and mark his position. This two-man stand always follows the Commander, making a three-man 'mini-unit' which can be attached to any larger formation.

Important Commanders will also have a unit of Elite (Guards) troops surrounding them. Such troops will not break in morale so long as their Commander is present, and they will fight as Fanatic Berserkers if their commander is slain and they pass the mandatory morale test required on such an occasion. (This represents the 'revenge' a loyal body of bodyguards will exact upon those responsible for the death of their lord). A Guards unit in revenge mood will never break in morale and will fight to the last man.

2.04 COLORS

Each unit will have a figure bearing some standard to represent the unit commander. If the colors are captured, the unit will have a +2 added to morale test 3D6 rolls until it is visited by an Army Commander or a Hero/SuperHero who can restore morale and steady the unit.

A unit capturing the standard of an enemy force will add that standard to the strength of the unit (1 figure) and will keep the standard in the unit. Alternately, it will send the standard back to the Army Commander or to the unit of the sub-Commander (if any) of that wing of the army.

A unit which has lost its colors will fight Fanatically if it subsequently comes into contact with an enemy unit displaying the standard.

Honor demands that the standard be recovered, and the troops will fight with exceptional ferocity to recapture it.

2.05 HEROES & SUPERHEROES

Historical and fantasy armies alike would often include warriors who could affect the outcome of any melee and who would set a brave example for the troops in any unit with which they serve.

(1) A Hero/SuperHero is represented by a single, distinctive figure which stands for himself and 19 companions, also of stout heart and fearsome battle prowess.

(2) A Hero/SuperHero is rated as an Elite Class A Berserker for melee purposes and personally never checks morale.

(3) A Hero/SuperHero can act as a sub-Commander or Commander. He may rally or steady any troops to which he has attached himself, subtracting -2 from 3D6 and 2D6 morale test rolls of any unit in which he is present. If such a unit breaks in morale, he may either stay with it to attempt to rally the troops or he may leave it immediately to avoid being carried off in the event he cannot rally them.

(4) A Hero/SuperHero moves at maximum light infantry speed if on foot, at maximum light cavalry speed if on horseback, and at the maximum speed of the type depicted if otherwise mounted. Such movement may be sustained every turn, subject only to terrain considerations.

(5) A Hero melees as 3 figures of the type depicted. He runs no risk of being slain until all of the troops in his unit have been slain and he is left as a solitary figure. In that case he fights as 3 figures until his figure has suffered 3 figures in casualties.

(6) A SuperHero melees as 6 figures of the type depicted. Like the Hero, he runs no risk of being slain until solitary, at which time he melees as 6 figures until his figure has suffered 6 figures in casualties.

(7) If a Hero/SuperHero has survived a melee in which he has been at risk (see 5 and 6 above), the figure returns to full melee strength regardless of casualties sustained.

(8) Whenever enemy Heroes/SuperHeroes meet on a battlefield, they will engage in personal combat until one or the other is slain.

(9) A Hero costs 5 times the point value of an equivalent figure. One Hero may be purchased per 2000 points fielded.

(10) A SuperHero costs 10 times the point value of an equivalent figure. One SuperHero may be purchased per 5000 points fielded.

The Hero/SuperHero is an optional feature of wargaming and need not be included if the players feel it undesirable.

In role playing games, the Hero/SuperHero will represent actual Player Characters. To have a Hero figure, fighter PCs equivalent to 30 experience levels are required. A SuperHero requires 60 experience levels of fighter PCs. If they meet with opposing Heroes/SuperHeroes, the single combat may be conducted on an individual basis, using role play combat rules, as a 'mini-skirmish' within the larger battle.

2.06 COMMAND LEVELS

Commanders and Heroes may be rated with a Command Level. The initial command level can be determined by the roll of 1D6. For each clear victory won by a commander, the Command Level or CL can be increased by +1, to a maximum of CL/7.

When Commanders/Heroes are in personal command of a unit, the CL can be used to alter the melee combat rolls:

If the difference in CL between commanders is 1, the higher CL adds +1 to melee dice rolls.

If the difference in CL is 2-3, the higher CL adds +2 to melee dice rolls.

If the difference in CL is 4+, the higher CL adds +3 to melee dice rolls.

All units are assumed to have a CL/1 unit commander present so long as the unit has its colors. Units lacking colors have a CL/0 rating. Regular units add their CL/1 rating to that of a Commander/Hero joining them, reflecting their superior discipline and command control.

3.01 TROOP PURCHASE VALUES

Armies can be purchased according to their point values, as determined by troop morale class and type. The following system is applicable for wargaming campaigns or individual battles:

Figure	Type	A	B	C	D	Reg	Semi	Elite	Fanatic
SHAC	Super Hv. Arm. Cavalry	.45	40	35	—	+10	+5	+5	+5
VHAC	Very Hv. Arm. Cavalry	.40	35	30	—	+10	+5	+5	+5
HAC	Hv. Armored Cavalry	.25	30	25	—	+10	+5	+5	+5
AC	Armored Cavalry	.30	25	20	—	+10	+5	+5	+5
HC	Heavy Cavalry	.20	18	15	—	+5	+3	+3	+3
LHC	Light Heavy Cavalry	.18	16	13	—	+5	+3	+3	+3
MC	Medium Cavalry	.15	13	10	—	+5	+3	+3	+3
LMC	Light Medium Cavalry	.13	11	8	5	+5	+3	+3	+3
LC	Light Cavalry	.12	10	7	4	+5	+3	+3	+3
LHCM	Light Heavy Camelry	.18	16	13	—	+5	+3	+3	+3
MCM	Medium Camelry	.15	13	10	—	+5	+3	+3	+3
LMCM	Light Medium Camelry	.13	11	8	5	+5	+3	+3	+3
LCM	Light Camelry	.12	10	7	4	+5	+3	+3	+3
HCH	Heavy Chariotry	.85	65	50	—	+20	+10	+10	+10
LCH	Light Chariotry	.70	55	40	—	+20	+10	+10	+10
EL	Elephants	—	125	100	—	+40	+20	+40	+20
SHAI	Super Hv. Arm. Infantry	.20	18	16	15	+2	+1	+3	+2
VHAI	Very Hv. Arm. Infantry	.18	16	14	13	+2	+1	+3	+2
HAI	Hv. Armored Infantry	.15	13	11	10	+2	+1	+3	+2
HI	Heavy Infantry	.10	8	6	5	+2	+1	+3	+2
LHI	Light Heavy Infantry	.9	7	5	4	+2	+1	+3	+2
MI	Medium Infantry	.8	6	4	3	+2	+1	+3	+2
LMI	Light Medium Infantry	.7	6	4	3	+2	+1	+3	+2
LI	Light Infantry	.7	5	3	2	+2	+1	+3	+2

Hurled Weapons	+1
Light Bows	+2
Horse Bows	+2
Heavy Bows	+3
Longbows	+3
Elven Longbows	+3
Slings	+1
Staff Slings	+3
Light Crossbows	+2
Heavy Crossbows	+3
Medieval Handgun	+5
Pistol (per gun)	+5
Carbine	+5

Arquebus	+6
Two-Handed Axes/Swords or Halberds	+2
Pikes	+2

Fantasy Types

Elvish Troops	+0
Dwarvish Troops	+0
Gnomes/Haeflings	-1
Saurian (Hss'Taathi) Troops	+0
Centaur Cavalry	+2
Ent Master	x5 HI
Entish Troops	x3 HI
Uruk Hai Troops	+0

Goblin Troops	—1
Water Trolls	x5 HAI
Wood/Hill/Cave Trolls	x4 HAI
Giants	x6 HI
Ogres	x5 HI
Zombies/Skeletons	x3 LHI
Armored Skeletons	x3 HI
Cursed Slain Warriors	x3 HAI
Ghouls w. Undead	x4 HI
Vampire w. Undead	x4 HAI
Spectre/Wraith (foot)	x5 SHAI
Spectre/Wraith (mounted)	x5 SHAC
Gargoyles	x4 HI
Lesser Balrog	x6 HAI
Great Balrog	x7 VHAI
Djinn of the Ring	x7 HAI
Djinn of the Lamp	x7 VHAI
Ifrit of the Ring	x7 SHAI
Ifrit of the Lamp	x8 SHAI
Demonic Infantry	x3 HAI
Demonic Cavalry	x3 SHAC
Chevalier de l'Enfer	x6 SHAC
Elementals	¾MKLxHAI
Shamanistic Totem	½MKLxHAI
Werewolf w. Wolves/Wereboar w. Boars	x4 HAI
Werebear w. Bears/Werelion w. Lions	x4 VHAI
Weretiger w. Tigers	x4 SHAI
Great Eagle	x4 MC
Roc	x5 HC
Great Roc	x10 AC
Young Dragon	x6 SHAC
Mature Dragon	x10 SHAC
Old Dragon	x14 SHAC
Ancient Dragon	x18 SHAC
Great Wyrn	x21 SHAC

Artillery Type	Points
Light Bolt Thrower	40
Heavy Bolt Thrower	75
Ballista	100
Catapult	125
Heavy Catapult	150
Light Bombards	100
Heavy Bombards	250
Light Field Guns	175
Medium Field Guns	225
Heavy Siege Guns	300

Crews are at added cost, according to type and class of infantry.

Miscellaneous	Points
Pack Train (Horse/Camelry)	10
Pack Train (Infantry)	5
Wagon (Mule/Horse)	15
Wagon (Oxen)	12
Siege Tower	300
Penthouse	150

Drivers/crews are at added cost, according to type and class of troops.

4.01 C&S MILITARY CAMPAIGNS

Chivalry & Sorcery provides for the numbers and types of troops available for military campaigning, based upon the fiefs, towns, and other holdings owing allegiance to a lord.

4.02 THE WAR CHEST

Initially, every fief and town will have a war chest equal to 3 x (5+1D6) month's net income from the rents/taxes arising from the fiefs/towns/holdings. This money can be used to equip and pay troops, to build or upgrade fortifications, and to finance the general costs of military operations. The war chest can be increased by booty, tribute, and up to the full net monthly income from rents and taxes. It will be depleted, of course, by expenses incurred. The war chest thus replaces the campaign point system outlined previously.

4.03 INITIAL MORALE LEVELS

Initially, all troops available are at the base levels of training and experience indicated below. The first percentage gives the number of the

troops in that category, while the second percentage gives the number that can be in that category if maximum upgrading through experience, training, etc., is undertaken. In some cases, the second percentage is a maximum, but in case of Class D troops it is a minimum.

National Type	Class A	Class B	Class C	Class D
Feudals	10%/20%	20%/30%	20%/40%	50%/10%
Nordics	10%/20%	30%/40%	30%/10%	30%/10%
Celtics	10%/10%	10%/20%	20%/50%	60%/30%
Mongols	10%/20%	20%/30%	40%/40%	30%/10%
Steppe Nomads	05%/10%	10%/30%	40%/40%	45%/20%
Saracens	05%/10%	10%/20%	20%/40%	65%/30%
Byzantines	10%/10%	20%/30%	20%/40%	50%/20%
Samurai	10%/20%	30%/60%	50%/20%	10%/10%
Elves	20%/20%	20%/40%	30%/50%	30%/10%
Dwarves	20%/30%	20%/30%	40%/30%	20%/10%
Haeflings	05%/10%	15%/30%	30%/50%	50%/10%
Goblins	05%/10%	10%/20%	20%/40%	65%/30%
Saurians	15%/30%	25%/40%	40%/20%	20%/10%

4.04 REPLACEMENTS

Replacements for casualties can be raised from the population, but no more than 20% of the total force a player possesses initially can be replaced from the population in a given year. The reasons are essentially economic, as men are needed to raise food and to produce goods and other services. An overdraft would cripple the economy and several disastrous battles would decimate the population. Besides, there are always those who would avoid military service where possible.

Replacement troops are always rated as Class D for one year. (Knights can be raised by elevating the Sergeantry, so Chivalric replacements can be of higher level, equivalent to the Sergeants raised to Knighthood. Replacement Sergeants would, however, be Class D).

Note that 10% of the initial force strength is always Class D, representing replacements, men in training, etc.

4.05 MERCENARIES

No more than 1/5 of the total force commanded may be mercenaries until the Renaissance. To hire mercenaries, a lord must negotiate. Negotiations involve paying 1-3 months' pay in advance to secure the arrangement. A mercenary company is typically 25% Class A, 25% Class B, and 50% Class C, but units of higher quality or lower quality could be obtained. Players can set their own limits on the availability of troops.

Mercenaries receive 1/4 pay while in garrison, but their needs for food, lodging, and shelter are taken care of by the employer. In war, they go to full pay. In effect, they are in almost the same position as vassal troops in regular service.

4.05 GENERAL COSTS: RAISING TROOPS

A wide variety of expenses will be incurred when raising troops as replacements or when paying them:

Troop	Type	Cost/	Figure	Monthly Pay
SHAC	Super Hv. Arm. Cavalry	3500	GP	190 GP
VHAC	Very Hv. Arm. Cavalry	2750	GP	180 GP
HAC	Heavy Armored Cavalry	2200	GP	170 GP
AC	Armored Cavalry	1750	GP	160 GP
HC	Heavy Cavalry	1250	GP	150 GP
LHC	Light Heavy Cavalry	900	GP	140 GP
MC	Medium Cavalry	825	GP	130 GP
LMC	Light Medium Cavalry	750	GP	110 GP
LC	Light Cavalry	675	GP	100 GP
LHCM	Light Heavy Camelry	900	GP	140 GP
MCM	Medium Camelry	825	GP	130 GP
LMCM	Light Medium Camelry	750	GP	110 GP
LCM	Light Camelry	675	GP	100 GP
HCH	Heavy Chariotry	3500	GP	200 GP
LCH	Light Chariotry	2500	GP	175 GP
EL	Elephants	5000	GP	250 GP
SHAI	Super Hv. Arm. Infantry	750	GP	70 GP
VHAI	Very Hv. Arm. Infantry	600	GP	65 GP
HAI	Hv. Armored Infantry	400	GP	60 GP
HI	Heavy Infantry	250	GP	55 GP
LHI	Light Heavy Infantry	100	GP	45 GP
MI	Medium Infantry	50	GP	40 GP
LMI	Light Medium Infantry	30	GP	30 GP
LI	Light Infantry	20	GP	25 GP

Additional costs for equipment are as follows, based on the 20-man figure:

Staff Slings	15 GP
Self Bows	30 GP
Composite Short Bows	90 GP
Composite Bows	120 GP
Long Bows	60 GP
Elvish Long Bows	500 GP
Light Crossbows	150 GP
Heavy Crossbows	200 GP
Matchlock Muskets	200 GP
Wheelock Pistols	300 GP
Muskets/Carbines	300 GP

Other common pieces of equipment are:

Light Boltthrower Battery (1 fig.)	.275 GP (20 engines)
Heavy Boltthrower Battery (1 fig.)	.500 GP (8 engines)
50 dr. Onager Battery (1 fig.)	.600 GP (6 engines)
100 dr. Onager Battery (1 fig.)	.750 GP (6 engines)
100 dr. Mangonel Battery (1 fig.)	.1050 GP (6 engines)
150 dr. Mangonel Battery (1 fig.)	.1100 GP (4 engines)
200 dr. Mangonel Battery (1 fig.)	.1200 GP (4 engines)
200 dr. Trebuchet Battery (1 fig.)	.1200 GP (4 engines)
300 dr. Trebuchet Battery (1 fig.)	.1600 GP (4 engines)
500 dr. Trebuchet Battery (1 fig.)	.2000 GP (4 engines)
25 dr. Bombard Battery (1 fig.)	.2400 GP (6 bombards)
50 dr. Bombard Battery (1 fig.)	.3600 GP (6 bombards)
75 dr. Bombard Battery (1 fig.)	.4800 GP (6 bombards)
100 dr. Bombard Battery (1 fig.)	.6000 GP (4 bombards)
125 dr. Bombard Battery (1 fig.)	.7200 GP (4 bombards)
150 dr. Bombard Battery (1 fig.)	.8400 GP (4 bombards)
200 dr. Bombard Battery (1 fig.)	.9600 GP (4 bombards)
4-pdr. Field Gun Battery (1 fig.)	.2400 GP (6 guns)
12-pdr. Mdm. Gun Battery (1 fig.)	.3600 GP (6 guns)
18-pdr. Mdm. Gun Battery (1 fig.)	.4800 GP (4 guns)
24-pdr. Mdm. Gun Battery (1 fig.)	.6000 GP (4 guns)
36-pdr. Hv. Gun Battery (1 fig.)	.7200 GP (4 guns)
48-pdr. Hv. Gun Battery (1 fig.)	.8400 GP (4 guns)
64-pdr. Hv. Gun Battery (1 fig.)	.9600 GP (4 guns)

Caltrops (20-pace frontage)	25 GP
1 Day's Archery Ammunition (1 fig.)	10 GP
1 Day's Musketry Ammunition (1 fig.)	20 GP
1 Day's Artillery Ammunition (4-pdr.)	20 GP
1 Day's Infantry Ration (1 fig.)	1 GP
1 Day's Cavalry Ration (1 fig.)	.2 GP
Baggage Train (Horse/Mule, 1 fig.)	100 GP
Waggon Train (Horse/Mule, 1 fig.)	200 GP
Oxen (20)	120 GP
Waggon Train (Oxen, 1 fig.)	220 GP

4.07 UPGRADING TROOPS

Troops may be upgraded in equipment, morale, and training levels.

First of all, any existing troops may be upgraded in equipment (subject to what would be appropriate for the nationality and historical period, the customary mode of fighting, etc.). For instance, LHI Light Heavy Infantry could be upgraded to HI Heavy Infantry by paying the cost required to raise HI, or else by paying the difference between the cost of LHI and HI. In the first case, the LHI arms could then be distributed to less well equipped troops. In the second case, the arms are considered to have been sold to help finance the HI arms.

Second, troops will be promoted one morale level, subject to the percentages limiting their total numbers, if:

(1) They are new replacements (Class D) and have campaigned for one year or else have been in 3 consecutive battles in which they were victorious.

(2) The troops are Class C-B and have campaigned for one year and have been in 3 consecutive battles in which they were victorious.

(3) They have been subjected to 4 months intensive training at full pay (in addition to standard pay).

Third, troops may be assigned 'elite' status if they have been in 6 consecutive battles and were victorious in each action. Only regulars, semi-regulars, and trained irregulars can achieve elite status. Units so designated cannot have broken in morale.

Fourth, elite troops may be assigned 'Guards' status if they have acted as the personal Guard of a Commander in 3 battles.

Fifth, troops may be granted trained irregular status if they have received 6 months intensive training at full pay. Semi-regulars and reg-

ular troops also receive 6 months training at full pay, and all standing armies will receive full pay at all times. To maintain trained, semi-regular, and regular status, troops must receive 3 months' training at full pay each year, or else must campaign for that time during each year.

Sixth, cavalry may be recruited from infantry forces at the current morale levels of the infantry. However, 6 months of intensive training at full pay (in addition to standard pay) is required to turn out a caval-ryman, and 2 months to turn out a mounted infantryman.

It should again be noted that Knights draw replacements from the Sergeantry at the morale level of the Sergeants elevated to Chivalric rank. The replacement drawn into the depleted ranks of the Sergeantry will be Class D types requiring cavalry training. When they complete training, they automatically become Class C Sergeantry.

4.08 FINANCING MILITARY CAMPAIGNS

Military campaigns can prove expensive, and often the resources of a feudal or even a civilized nation cannot support massive operations for very long.

TAXES

Taxes may be doubled to increase the size of the war chest. However, this may bring a Jacquerie Uprising (see Phil Macgregor's article in *Sourcebook II*).

BOOTY

Enemy troops left for dead on a battlefield and all captured enemy troops yield up booty and ransoms equal to the value of their arms and armor (see costs of raising troops). This booty can be converted into equipment for one's own troops or else can be sold at 50% value to raise gold and silver to pay for needed equipment, rations, etc., or to meet military payrolls. The sacking of towns, castles, and the like can also yield up booty.

The Commander who can convert war to his own profit will find he is able to stay in the field with a strong force.

It should be noted that one's own casualties (dead and captured) represent a drain on one's resources and even though an army has held the field and won a victory, one's own dead cannot be looted for equipment. It is held to be lost, damaged, etc., and thus is of no effective value.

5.01 FEUDAL MOBILIZATION & LOGISTICS

One of the problems confronting players of a medieval campaign is the whole question of mobilization. How many men can be called up for service, and how long does mobilization take? When the troops are mobilized, a second problem immediately occurs: How do you feed them?

The feudal system assumes a theoretical mobilization of all the able-bodied men in the manor. In fact, 100% of the manpower was rarely if ever available for service. Some cannot be spared from pressing duties, others are absent or sick or simply evading service, and in the event of offensive operations there are not enough resources to maintain all of the troops in the field for very long.

The Chivalry & Sorcery systems of developing feudal holdings provide both incomes for the lord and theoretical maximums for the various classes of fighting men who will be found in a manor or larger holding — the numbers of Knights, Squires, Sergeants, Men-at-Arms, Mercenaries, Petit Sergeants, Yeoman and Peasants. The numbers are sometimes impressive, but what the holding might boast in total numbers of fighting men is not a reflection of those who will actually take to the field at any given time.

5.02 MILITARY SERVICE

Traditionally, 40 days of military service were required of vassals each year, after which men had to be paid. To facilitate playability, C & S extended this period to 60 days. Those two months of military service govern all operations in the field. Only a complete idiot (or a fantastically wealthy one) would call up more than one-third of his vassals at any one time, for the usual campaigning season is 180 days. A 100% call-up for 60 days would leave a lord helpless for 120 days of campaigning unless he was willing to bankrupt himself by paying his forces mercenary rates for the duration.

Secondly, a 100% call-up would leave the castles and countryside unprotected. Not only would the strongest fortifications be vulnerable to capture by small enemy forces, but the brigands who abound in the land would have the opportunity to pillage, rob, and rape their way across the demesne unopposed. Since the first duty of any lord is to protect his vassals, anyone thoughtless enough to denude his lands of fighting men would be begging for rebellion.

Further, it costs (in the form of provisions) to keep forces in the



field, even if they are serving out their feudal obligations and do not have to be paid at the moment. The revenues of the manor or larger holding must be applied to maintain men and animals day by day whenever the troops are operating away from home. Either a baggage train must be provided or else the army must forage for provisions and supplies.

Logistics also involve the movement of the armies, both in the mobilization and field operations phases of the campaign. Baggage trains and the need to forage tend to slow down armies considerably once they have concentrated, while the size of the feudal demesne itself determines the speed at which troops can be formed up at a concentration point. In short, campaigns involve a lot more than lining up figures on a battlefield and getting at the business at hand.

5.03 MOBILIZATION & LOGISTICS

To reflect the realities of the feudal system, and warfare in general, the following guidelines are recommended:

1. A minimum of 20% of one's total feudal forces must be retained in the manor for garrison duty and for keeping the peace in the countryside. Feudal forces is here interpreted to mean Knights, Squires, Sergeants, and Men-at-Arms, the trained troops of the holding. The remainder are free for military service in whatever proportion the lord desires for 60 days.

2. Feudal levies (Petit Sergeants, Yeomen and Peasants) cannot be counted on to turn up for military service in the numbers desired. When mobilization is ordered, consult the following table to find the percentage of such troops that will be available. Roll percentage dice for each class:

Die Roll	Petit Sergeants	Yeomen	Peasants
01-10	5%	10%	10%
11-20	10%	15%	10%
21-30	15%	15%	15%
31-40	20%	20%	15%
41-50	20%	25%	20%
51-60	25%	30%	20%
61-70	30%	35%	25%
71-80	40%	40%	30%
81-90	50%	50%	40%
91-00	60%	60%	50%

If more troops show up than are required, the remainder may be sent home. After 20 days, a second call-up may be ordered, and a new determination made. The second and each subsequent call up results in a -10 die modification (cumulative). Thus a fourth call up would subtract -30 from the die roll, reflecting the growing unpopularity of the war. If the local manorhouse or castle is being attacked, and the defenders received warning of the impending attack, add +50 to the die roll, with each percentage point over 100 representing an additional 1% of the class of levy; even those who have already given their year's military service will answer the summons. In all other cases, no more than 100% of the feudal levy may be called up during the year.

3. Mercenaries will serve in whatever numbers they are called up, and receive 1/4 pay when in the field. However, to 'motivate' them, which gives bonuses in combat and morale checks, mercenaries should receive full pay.

4. Town militia units may be called out in whatever numbers are required to protect the town itself. A feudal overlord may require service by 25% of the town's forces in the field for 60 days each year. Ad-

ditional forces may be obtained by paying them full mercenary rates. In no event will less than 25% of the town militia be left to guard the town.

In addition to the town militia, there is an equivalent number of class D citizenry without armor and carrying improvised light arms who may be required to man the walls in a siege. These are equivalent to rural peasantry.

In defense of the town, 100% mobilization may be counted on. Townsmen were adverse to sharing their wealth and wives with invaders.

5. A force composed of the feudal troops from a manor may conduct field operations within one day's march of the manor's borders without worrying about supply.

6. When operating within the boundaries of the holdings of a great lord (Duchy, County, Kingdom), the lord may maintain 20% of his total forces for 60 days per year without incurring costs for provisions and fodder. This reflects the availability in supplies in one's own territory, particularly when the field operations are defensive in nature.

7. Town militias may count on being in supply anywhere within one day's march from the town, without worrying about cost.

8. Forces may be maintained outside a manor or demesne by bringing a supply train along. Simply compute the cost of provisions and fodder per day for the number of troops and animals (see C & S rules for land campaigns) and allot one cart for every 400 daily rations. If using pack horses or mules, one horse will carry 50 daily rations and a mule will carry 80 daily rations.

9. Forces may be maintained by foraging. Except for grazing animals, this method is not recommended for operations within one's own demesne as it amounts to plain robbery and upsets the populace (areas so treated will send 50% of whatever feudal levy is determined for one year following such treatment). In hostile territory, foraging is often essential. However, those troops who are foraging are considered to be out of supply unless they are characteristically given to using such methods (eg: Arab tribesmen, Pechenegs, and other 'horse' peoples).

Ten percent of a foraging army must be detailed to spread out through the countryside to gather in food and fodder. This number will vary depending upon the following conditions:

Fertile land:	10% forage
Average land:	20% forage
Wilderness:	40% forage
Desolation:	60% forage
Siege Operations:	+10 - 20% forage in addition to any other factor.

Foraging troops are scattered throughout the countryside and are not counted amongst the numbers of troops available for battle. Foraging activities must be carried out each day to keep the army eating.

There is a chance that foraging troops will be ambushed by small parties of defending skirmishes and patrols. Roll a 6-sided die for each 100 men who are foraging in hostile territory or within three days' march of a hostile army. Check at the end of each day of foraging:

Die Roll	Effect
1-3	No incidents
4	1% of foraging parties are casualties (M.I.A.)*
5	2% of foraging parties are casualties (M.I.A.)*
6	3% of foraging parties are casualties (M.I.A.)*

*Cavalry foragers suffer 1/2 the casualties indicated.

In wilderness and desolate country, casualties are ½ normal unless an enemy force is within 3 days' march.

It should be noted that the casualties also include deserters, etc., so ½ the numbers lost in fact have returned home by the end of the campaign year. The remainder are dead. Failure to forage for an unsupplied army results in 1-6 times the foraging attrition after one week out of supply, checked daily.

10. Movement of armies is directly related to the terrain, to composition of forces, and to the method of provisioning:

Infantry:	Road:	15 miles per day
	Cross Country:	10 miles per day
	Wilderness:	10 miles per day
Cavalry:	Road:	25 miles + 5-30 miles per day
	Cross Country:	15 miles + 3-18 miles per day
	Wilderness:	15 miles + 2-12 miles per day
Modifiers:	'Horse Peoples':	+5-30 miles on roads
	Messengers:	+3-18 miles across country
		+2-12 miles in wilderness
	Light Cavalry:	+2-12 miles
	Pack Train:	80% of cavalry distance
	Wagon Train:	50% of infantry distance off roads
	Seige Train:	50% of infantry distance on roads only
	Light Infantry:	+2-12 miles
	Foraging:	70% of cavalry distance
		50% of infantry distance

11. Mobilization is a function of the speed at which groups of men can concentrate at a predetermined location. Since mobilization implied the greatest of haste, assume that contingents proceed at maximum normal movement each day. By comparing distances between the mobilization area and the manors from which vassals and levies are being called, the troops arriving at any given time can be determined without difficulty. The same is true for supplies and seige trains.

12. Forced marches are possible. However, they leave an army fatigued for the last half of the march and until the next day. Roll a 6-sided die:

Die Roll	Effect
1	10% extra distance, no fatigue
2	15% extra distance, no fatigue
3	20% extra distance, fatigue in 1/2 day's march
4	25% extra distance, fatigue in 1/2 day's march
5	30% extra distance, fatigue in 1/2 day's march
6	40% extra distance, fatigue in 1/3 day's march

Foraging is not possible during a forced march, but there is ample possibility for stragglers:

Road:	1% loss of Infantry for each 5% extra distance
Off Road:	2% loss + 1% for each 5% extra distance (all troops)

Half the stragglers desert; the remainder rejoin the army during the night. Forced marchers by supply wagons and seige trains cannot exceed their normal movement limits unless on roads.

13. The question of supply should be raised for fortifications and cities. Most fortifications will have 1-3 months' supply of food and fodder for the normal garrison (Knights, Squires, Sergeants, Men-at-Arms, and Mercenaries, plus their immediate dependents). Cities have 2-12 weeks' supply of food for the population. These amounts can be increased 10-100% if the inhabitants have warning of an enemy's approach. Additional supplies can also be purchased (use the C & S price lists).

6.01 SEQUENCE OF PLAY

Each game turn is divided into a series of steps:

- (1) Write all orders for the turn.
- (2) Phase 1 movement, first declaring all charges.
- (3) Phase 1 missile fire, if desired.
- (4) Phase 2 movement, first declaring all charges.
- (5) Phase 2 missile fire.
- (6) Melee combat.
- (7) Breakthroughs, pursuits, and enforced retreats.
- (8) Breakthrough, pursuit, and retreat melee combats.
- (9) Enforced retreats.

Morale tests are taken wherever required.

6.02 MOVEMENT

SIMULTANEOUS MOVEMENT:

All movement is taken simultaneously. Both sides write their orders for all units as clearly as possible at the start of each turn and then the units are moved as ordered.

MOVEMENT PHASES:

All movement is taken in two phases, hereafter called Phase 1 and Phase 2. The two-phase movement permits units to execute facing and/or formation changes, evasions, etc., so that gaps and interpenetrations will result. This can recreate actual historical tactics and battlefield situations.

MOVEMENT ACTIONS:

A unit may perform any two of the following movement actions in most movement situations:

(1) **Move:** A unit may advance/fall back up to its maximum movement distance. Time required = 1 phase.

(2) **Change Formation:** A unit may change from one formation to another. Time required = 1 phase.

(3) **Change Facing:** A unit may change the direction in which the troops are facing. Time required = 1 phase.

A unit may normally perform one movement action in Phase 1 and a second (and different) movement action in Phase 2. Orders should specify which action will be performed in Phase 1 and which in Phase 2. Even if only one action is to be performed in a turn, the phase in which the unit will execute the action should still be specified.

Cavalry units (horse troops and camelry) have the ability to perform both a change of face and a change of formation in the same phase. Elite infantry units (usually regulars) may also have this capacity.

Elephants and chariots cannot change face, but rather must turn and wheel in formation as part of movement in order to change the direction they are facing.

Should one of the actions be movement, the unit may move up to, but cannot exceed, its maximum movement allowance. These distances are determined by the type of the unit, the formation it is holding, and the terrain. Movement is always in paces per turn.

Note that missile fire and melee combats are not movement actions. Missile fire can be conducted either at the end of Phase 1 or at the end of Phase 2 movement. Some missile fire can be conducted by the same unit in both phases. All melees are conducted at the end of Phase 2.

SCALE:

The battlefield scale for 25mm figures = 10 paces per 2.5cm or 1 inch.

LINE OF BATTLE:

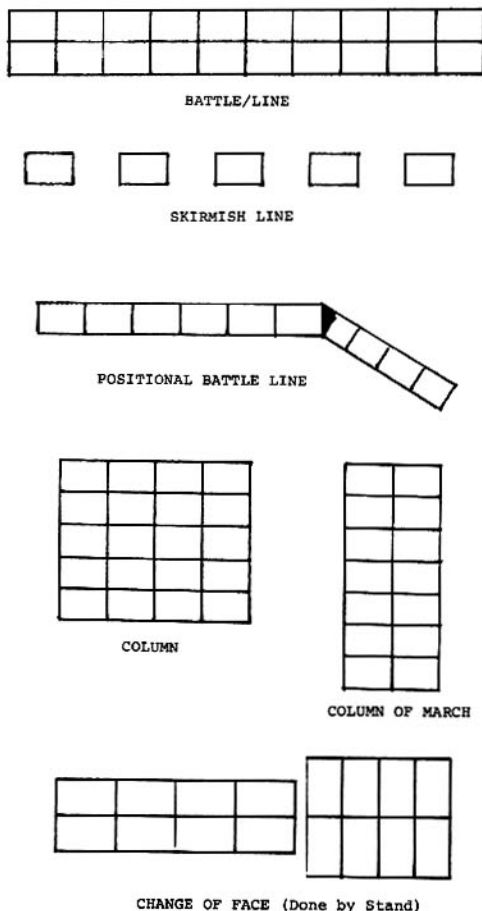
All the stands in a battle line are touching, flank to flank, with all figures facing in the same direction. The line may be 1-3 ranks of figures in depth, and the formation is usually ordered in a straight line all along its front. A line may also be positional, with the front bent to conform with terrain features to keep the entire unit on the same terrain or to permit the unit to take advantage of specific defensive features such as walls, streams, etc. Infantry receive a full charge move only when formed in line of battle.

COLUMN:

A column is similar to a line, except that the troops are massed 4 or more ranks deep. The column enjoys a somewhat greater marching pace than the more extended battle line, if infantry are so formed, because an infantry column has a narrower front that is less likely to get out of alignment. However, any infantry in column do not receive a full charge move and mount all charges at column pace only. Mounted troops are exempt from this restriction, which reflects the ponderous advance and then the sudden rush over the last few yards which is characteristic of a column of infantry in the assault. All cavalry may charge at full speed when in column.

SQUARE:

A square is a hollow formation which can be assumed by infantry to attain all-around defense. A single unit can form square with each side 1-2 ranks deep, and with all troops facing outward from the center. Several units can form square 1-3 ranks deep. The marching pace of a square is 1/2 line of battle pace. When on the march, the troops all face in the same direction and must halt and face outward to form defensive formation.



ROMAN SQUARE:

Some regular and semi-regular armies may be able to advance in square formation while enjoying all around defense. In effect, this is the famous testudo ('tortoise') formation of the Romans. It cannot be assumed by pike-armed troops, however, as movement with long spears is exceedingly difficult when facing to the flank or rear of the direction of movement.

ROAD COLUMN:

A road column is the only formation that can be used to take advantage of road movement. Road column is 3 figures wide or else no more than 80mm wide if figures are of exceptionally broad frontage. Road column speed can be used each turn a unit is on a road. A forced march across country can be used every other turn by a unit if (1) formed in road column and (2) always more than 250 paces distance from the nearest enemy unit(s) over the entire distance of the forced march. No unit will force march into a melee because such a move is always considered to be a charge move. Road column may also be used by cavalry performing split-fire maneuvers on the battlefield.

TURN AROUND:

A movement action in which some/all figures in a unit change facing from 91° to 180° .

FLANK TURN:

A movement action in which some/all figures in a unit change facing from 46° to 90° . If facing is changed less than 45° , no movement action is required, and the change of facing can be made in the same phase as some other movement action. A 'flank turn' under 45° is known as a sweep.

WHEELING IN LINE:

To wheel in line, movement is measured from one of the flank units, and the entire line turns in formation around a pivot point. This type of turn is part of movement and does not count as a separate turning action. All irregular infantry and all cavalry may perform the maneuver at standard line of battle pace in a forward direction. Regular and semi-regular infantry may also wheel at $\frac{1}{2}$ line of battle pace to the rear without change of facing, simultaneous with a forward wheel. This can swing a line much more quickly than one might realize:

WHEELING IN COLUMN:

When a unit is in column formation no more than 3 figures wide, it may wheel 180° to left or right as part of movement. The maneuver may be made at maximum speed (up to full road/charge/forced march pace) and counts as part of movement, not as a separate turning action. The wheel-in-column will displace the column 25mm to the side in the direction of the turn, and the distance covered is measured in a straight-back direction from the head of the column.

MOVE AT 45° :

A unit can move at angle up to 45° from its forward facing without loss of a movement action, provided that it does not alter its frontal alignment.

SWEEP AND MOVE:

A unit can sweep up to 45° from its forward facing and then move in the same phase without loss of a movement action.

CHARGE:

A charge is a move that gives impetus into a melee situation. The final $\frac{1}{2}$ of the charge movement must be made in a straight line if the charge bonus is to be applied in the melee.

Charges are conducted in the following stages in the phase in which they occur:

- (1) Charging units move 60 paces or equivalent if affected by terrain.
- (2) Units being charged may change face/formation or initiate a normal move after the charging units has covered 60 paces.
- (3) Charging units complete their charge, pro-rated if necessary against enemy units taking a normal move.
- (4) Charging units unable to reach their intended targets may abort the charge after the initial 60 paces or may complete the move as a normal move.

CHARGE IF CHARGED:

A 'C.I.C.' order is intended to add impetus into a melee situation, but is implemented only if the unit is acting defensively to counter a charge against it. This move is allowed if it appears in writing and takes effect only after the charging enemy unit has completed its first 60 paces of movement or equivalent if affected by terrain. No breakthroughs are permitted because a 'C.I.C.' is a defensive movement.

ATTACKING AT AN ANGLE:

If a unit attacks another on an angle, first determine whether the attack is frontal or to the flank or rear. Then allow the attacker to make a final sweep to made for an even frontage along his line. For instance, a unit making a frontal charge at 25° off a directly frontal approach can be allowed to sweep 25° and still retain its charge bonus. This is done in order to simplify the determination of the number of figures in the unit which are actively engaged in the shock/melee.

OVERLAPPING THE ENEMY:

Should one unit in the melee have a larger frontage than its opponent, it has an overlap and may slowly flow around the flanks of the enemy in a special overlapping movement.

In the first turn of melee, infantry can have up to 2 additional figures engaged on either or both flanks of the overlapping unit. Cavalry can have up to 1 additional figure engaged on either or both flanks. The unit is kept in a straight line.

In the second turn of melee, the overlapping unit may begin to lap around the flanks of the smaller opponent. This act of lapping will appear to create a new flank and a second, additional rear for the larger unit. However, a unit is always assumed to have only one rear, and the overlapping unit therefore has its original flanks and rear. To avoid confusion, maintain the facing of all the troops in the overlapping unit so that they all face in the same direction. The troops engaging the smaller enemy will be those adjacent to the smaller formation.

Thus any attacks against the overlapping unit by fresh enemy units will be easily determined as striking against the correct flanks, rear, or front.

CHANGE OF FRONTAGE:

A unit may not change formation once melee is joined, but it may expand its frontage or contract its frontage by a set number of figures per turn. The number of figures that can be shifted depends upon the morale class of the unit, and also upon its training level. Expansion/contraction limits are as follows:

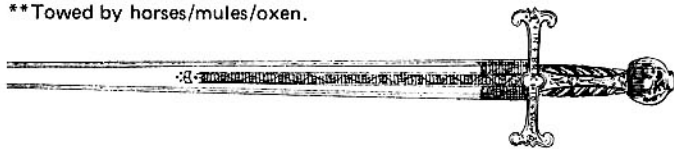
A—Class Troops	.6	figures/turn per unit
B—Class Troops	.4	figures/turn per unit
C—Class Troops	.3	figures/turn per unit
D—Class Troops	.2	figures/turn per unit
Regular/Semi-Regular Troops	+.2	figures/turn per unit
Elite Troops	+.2	figures/turn per unit

6.03 MOVEMENT RATES

Unit Type	Line of Battle	Column	Road Column	Charge	Forced March
SHAC.	100	100	150	150	150
VHAC	100	100	160	160	160
HAC	120	120	170	170	170
AC	120	120	180	180	180
HC	120	120	190	190	190
LHC	120	120	200	200	200
MC	120	120	210	210	210
LMC	120	120	240	240	240
LC	120	120	240	240	240
Camel MC/LHC	120	120	160	160	160
Camel LC/LMC	120	120	180	180	180
Hv. Chariots	100	100	150	150	150
Lt. Chariots	120	120	180	180	180
Elephants	80	80	120	120	120
SHAI/VHAI	50	60	70	70	70
HAI/HI	50	60	80	80	80
LHI/MI	60	80	100	100	100
LMI/LI	80	100	120	120	120
Lt. Bolt Thrower	40*	80**	120**	—	—
Hv. Bolt Thrower	20*	40**	80**	—	—
Hv. Catapult	20*	40**	60**	—	—
Hv. War Engine	NA	30**	40**	—	—
Lt. Bombard	NA	40**	40**	—	—
Hv. Bombard	NA	30**	40**	—	—
Lt. Gun	20*	120**	150**	—	—
Mdm. Gun	20*	60**	120**	—	—
Hv. Gun	NA	50**	70**	—	—
Seige Tower	20*	20**	20**	—	—
Penthouse	20**	20**	20**	—	—
Pack Mule/Horse	120	120	160	NA	160
Pack Train (Inf)	60	60	100	NA	100
Wagon (Mule)	40	40	80	NA	120
Wagon (Ox)	40	40	40	NA	40

*Pushed forward by crews.

**Towed by horses/mules/oxen.



Unit Type	Line Battle	Column	Road Column	Charge	Forced March
Elf LI/LMI	80	100	140	140	140
Elf MI	80	100	120	120	120
Elf HI/HAI	60	80	100	100	100
Elf MC	120	120	240	240	240
Elf AC/HAC	120	120	200	200	200
Dwarf Infantry	50	60	70	70	70
Gnome LI/LMI	60	80	100	100	100
Gnome MI	50	60	80	80	80
Gnome LHI/HI	50	60	70	70	70
Haefling LI/LMI	60	80	100	100	100
Haefling MI/LHI	60	70	80	80	80
Haefling HI	50	60	70	70	70
Saurian LMI	80	100	140	140	140
Saurian MI	60	80	100	100	100
Saurian HI/HAI	60	80	100	100	100
Saurian Cavalry	120	120	180	180	180
Triceratops Cav	80	80	120	120	120
Goblin LI/LMI	60	80	100	100	100
Goblin MI	50	70	90	90	90
Goblin LHI/HI	50	60	70	70	70
Wolf-Mounted MI	120	120	180	180	180
Trolls	80	80	120	120	120
Giants/Ogres	100	120	150	150	150
Undead Infantry	50	60	70	70	70
Ghouls/Vampires	60	80	100	100	100
Wraith (SHAI)	60	80	100	100	100
Wraith (SHAC)	120	120	200	200	200
Gargoyles	100	100	120	120	120*
Balrogs	100	100	120	120	120*
Djinn/Ifrif	100	120	150	150	150*
Demonic Infantry	60	80	100	100	100
Demonic Cavalry	120	120	200	200	200
Elementals	70	70	70	70	70
Totems	120	120	180	180	180
Werewolves	120	120	180	180	180
Wereboars	80	80	140	140	140
Werebears	80	80	140	140	140
Werelions	80	80	180	180	180
Weretigers	80	80	180	180	180
Great Eagle/Roc	80	80	80	80	80**
Dragons	100	100	100	100	100***

*Also fly at 240 paces/turn.

**Also fly at 400 paces/turn.

***Also fly at 360 paces/turn.

6.04 TERRAIN EFFECTS

Movement rates will be affected by the nature of the terrain being traversed by the troops:

Roads

Normal movement, irrespective of terrain. All regular and semi-regular troops gain ¼ extra movement. Steep slopes require march pace uphill.

Clear Off-Road

Normal movement for all troops.

Linear Obstacles

All infantry deduct 20 paces from marching pace to cross, unless passing through gaps. All cavalry deduct 60 paces from movement if jumping the obstacle (wall, hedge, etc.), and otherwise are like vehicles/engines/elephants who may cross only at gaps, bridges, etc.

Open Woods

Light and Light Medium Infantry have normal movement. All other infantry and all cavalry have ½ normal movement. All vehicles/engines

may move only along roads and paths. Elvish troops (fantasy campaign) may have normal movement for all types of infantry.

Dense Woods

All infantry move at ¼ speed. So do dismounted cavalry leading horses. Mounted cavalry/vehicles/engines may move only along roads and paths. An elephant counts as infantry in dense woods. Elvish troops have ½ normal movement for all infantry.

Gentle Slope

Normal movement for all troops.

Steep Slope

Normal movement downhill, but all infantry move at ½ speed uphill, and all cavalry/vehicles/engines move at 1/3 speed uphill.

Cliffs

All Light and Light Medium Infantry may climb at 1/5 normal march rate. Cliffs are impassible to other troops except through gaps or along roads.

Muddy Ground

All cavalry and infantry move at $\frac{1}{2}$ speed. All vehicles/engines/elephants move at $\frac{1}{2}$ speed.

Marshes

Light and Light Medium Infantry move at $\frac{1}{2}$ speed. All other infantry and dismounted cavalry leading horses move at $\frac{1}{2}$ speed. Impassable to vehicles/engines/elephants unless on a causeway. Charges are impossible.

Water

All troops able to wade can move at $\frac{1}{2}$ speed across streams and rivers. Rivers 30-60 paces wide can be crossed by swimming elephants, cavalry (except metal-barded), and swimming Light/Light Medium/Medium Infantry at $\frac{1}{2}$ speed. Rivers 60-120 paces wide can be crossed only by Light/Light Medium Cavalry. Rivers over 120 paces wide are impassable if not bridged.

Bridges

Bridges must be crossed in column of march.

Rafts

Rafts may be used to cross wide rivers and other bodies of water at 20 paces per turn.

Fords

If the river is less than 30 paces across, fords count as no movement obstacle. Wider fords reduce speed to $\frac{1}{2}$ movement.

7.01 MORALE

Morale is an essential feature in wargaming, but the whole matter should be reduced to a simple system requiring a minimum of paperwork and computation.

MORALE CLASSES

All troops are rated as having one of the following morale levels:

Class-A Troops: show great fortitude and steadiness under even the worst of conditions. They are usually veterans and are highly motivated.

Class-B Troops: are generally steady but may be shaken under severe conditions. A good number of veterans stiffen their ranks.

Class-C Troops: are average troops, usually able to maintain their morale but somewhat brittle under severe battlefield pressure.

Class-D Troops: are below average troops who are rather untrustworthy and are likely to crumble under severe pressure.

MORALE TESTS

Units test morale under the following conditions:

- (1) Prior to engaging in the initial turn of melee. Charging units test first, except for missile troops facing a cavalry charge or any troops about to receive a charge from the rear and who must test first.
- (2) Whenever a unit is attacked by a new enemy force while engaged in melee.
- (3) Whenever under fire for the first time in battle.
- (4) Whenever under musket, pistol, or cannon fire and not itself a Renaissance unit.
- (5) Whenever the unit is pushed back 20 paces or more in melee.
- (6) Whenever the unit loses its colors.
- (7) Whenever the unit lacks friendly support within 100 paces, unless the unit is Class A or B.
- (8) Whenever the unit has lost 20% of original strength to fire/combat, checked at 80%, 60%, 40%, 20% strength levels.
- (9) Whenever a friendly unit is routed/destroyed within 120 paces in line-of-sight to the immediate front or flanks.
- (10) Whenever a Commander/Hero/SuperHero dies in sight of his troops or the Commander's colors are captured.
- (11) Whenever a routed unit is to be restored to battleworthiness.
- (12) Whenever a unit is contacted by a friendly routing unit.

MORALE TEST LEVELS

A unit's basic morale is rated according to its morale class. A morale test is passed whenever a 3D6 dice roll is equal to or lower than the value indicated. The result will be modified by applicable battlefield factors:

Class A Troops	18
Class B Troops	16
Class C Troops	14
Class D Troops	12

MORALE TEST PROCEDURE

Roll 3D6 and modify the result by the following factors:

Unit is regular/semi-regular	-1
Unit is Elite/Guards	-1
Unit is Fanatic	-1
Unit is Berserker	-3
Unit has its colors	-1
Unit is pike-armed	-1
Unit is charging	-1
Unit is uphill in melee	-2
Unit in prepared position	-2
Unit in fortification	-5
Unit has secure flanks/rear	-2
Unit has captured enemy's color during battle	-1
Army Commander present	-2
Hero/SuperHero present	-2
Unit pursuing routed enemy	-2
Per 20% enemy outnumbered	-1
Unit at original strength	-1
Heavier cavalry attacking cavalry	-2
Unshielded unit under fire	+2
Unit unsupported within 100 paces	+1
Unit threatened in the rear	+2
Unit attacked in flank	+1
Unit attacked in rear	+3
Unit is disorganized	+2
Unit is already demoralized	+3
Unit has lost its colors	+1
Unit attacked by Fanatics	+1
Unit attacked by Berserkers	+2
Unit attacked by Monsters	+1
Unit facing Cav. pistols	+2*
Unit facing Inf. musketry	+2*
Inf. attacked by Hv. Cavalry	+2
Inf. attacked by Mdm. Cavalry	+1
Inf. attacked by Chariots	+2
Inf. attacked by Elephants	+3
Unit attacking uphill/over stream	+1
Per 10% original strength lost	+1

*If non-Renaissance unit and range is under 40 paces, or Renaissance unit without fire support.

MORALE TEST RESULTS

If a unit rolls equal to or lower than its morale level, it remains steady and follows orders. However, if it rolls higher than its morale level, it becomes 'demoralized' and unresponsive to orders. Roll 2D6 and consult the following table to see how a demoralized unit reacts:

2D6 Result	Morale Response
02-04	The unit steadies and performs with valor.
05-07	The unit's morale is shaky. Unit falls back one normal move in good order and still facing the enemy.
08-09	The unit retreats one full charge move, backs to the enemy, and must be rallied and reorganized before it will about face again and return to the fight.
10-11	The unit is routed and withdraws two full charge moves before it halts. It must be rallied and reorganized in order to restore it to a combative mood.
12	The unit is totally demoralized and will flee at full charge speed from the battlefield unless it is halted, rallied, and reorganized by an Army Commander, General, Hero, or SuperHero.

A unit pushed back 3 times in a melee sequence is automatically routed at the 10-11 level and moves back immediately, unless it is Class A or B.

A unit which is routed and then rallied must spend the following turn standing in place to reorganize and restore its shattered nerves. In the subsequent turn it can resume normal action.

A routed unit must retreat directly away from its opponents. Such units lose 10% of their current strength per turn they rout. In the event they are blocked by friendly troops, they will pass through any gaps available or, failing this, will interpenetrate and disorganize the friendly units they are passing through.

Units falling back must also do so directly away from the enemy and, in the event of being blocked by friendly units, must seek the nearest gap. Terrain features impair rate of retreat. If no gaps are available,

retreating units halt against the first supporting unit contacted, and the supporting unit must test morale.

Fanatics go into uncontrolled advance, as do Berserkers, if they force the enemy into a retreat or rout. A first-turn charge bonus is granted to them as they pursue.

Fanatics, should they lose a melee and fail a post-melee morale test, will automatically go to a rout at the 10-11 level.

Berserkers and Elite/Guards units ignore morale results over the 07 level and will never surrender. If unable to withdraw, they stand in place and fight until victorious or slain to the last man.

A unit unable to retreat or rout because it is surrounded or because it is prevented from doing so by terrain, etc., will continue to fight, but will lose 20% of its current strength per turn the rout was supposed to last—in addition to battle losses. This represents men surrendering to the enemy because of severe demoralization. Berserkers and Elite/Guards units are exempted from this rule.

Troops in a fortified position are exempt from the retreat rule. However, roll 2D6. If the result is 11-12, the unit loses 10% of its current strength per turn the demoralization results. This represents temporary defections from the defense of the walls (men fleeing from the battlements/palisade) for the duration of the melee sequence. They will return when the pressure is off, no doubt herded back by their

irate officers once they have time to round up and rally the weak-hearted.

8.01 MISSILE FIRE

All troops equipped with hurled weapons, slings, bows, crossbows, and the like are assumed to have sufficient missiles for one day's battle and must normally replenish ammunition from munitions in the baggage train at the end of the day. Note also that hurled weapons are usually recovered and reused after an engagement, so if a unit is forced to fall back from a melee in which it hurled darts/javelins/axes, etc., it has lost those weapons. Such units have enough weapons for two volleys unless weapons are recovered. Weapons are assumed to be recovered whenever the unit advances over the ground or if the melee is mutually broken off.

All missile fire is performed by firing teams. Each firing team is nominally 5-6 figures, but it can be smaller if there are not sufficient figures to make up a team of 5-6 figures. Up to 24 figures may fire in concert as a firing team, but smaller numbers are recommended in order to increase the chance for multiple 'kills' in a fire turn.

A target figure is killed and removed from play when the fire team rolls 1D6 and equals or exceeds the die values given in the table below. The 1D6 results will be modified by pluses and minuses—adds for tactical, terrain, and weapons factors affecting the results of the firing.

No. of Figs. Firing	LC	LMC	MC	AC							
				LHC	HC	HAC	VHAI	SHAI	LT	HV	
	LI	LMI	MI	LHI	HI	HAI	VHAI	SHAI	CH	CH	EL
1-2	4	5	6	6	7	7	8	8	7	7	7
3-4	3	4	5	6	6	7	7	8	6	6	6
5-6	2	3	4	5	6	6	6	7	5	5	5
7-8	1	2	3	4	5	6	6	6	4	4	4
9-10	1	1	2	3	4	5	6	6	3	3	3
11-12	1	1	2	3	3	4	5	6	2	3	3
13-14	1	1	1	2	3	4	5	5	1	2	2
15-18	1	1	1	1	2	3	4	5	1	2	2
19-21	1	1	1	1	2	3	4	5	1	1	1
22-24	1	1	1	1	1	2	3	4	1	1	1

The following table sets out the figure equivalents of each type of missile troops figure (artillery will be a multiple figure), range levels, and range bonuses/penalties to be added to or subtracted from the 1D6 missile fire rolls:

Missile Weapon	Equiv. Figs.	Ranks	Short Range	Mid- Range	Long Range
Hurled Weapon	x1	x1	0-20	20-30	30-40
			+0	-1	-1
Light Bows	x1	x2	0-60	60-90	90-120
			+1	+0	-1
Horse Bows	x1	x1	0-60	60-90	90-120
			+1	+0	-1
Heavy Bows	x1	x2	0-80	80-120	120-160
			+1	+0	-1
Longbows	x1	x2	0-100	100-150	150-200
			+2	+0	-1
Elven Longbows	x1	x2	0-120	120-180	180-240
			+2	+0	-1
Slings	x1	x2	0-60	60-90	90-120
			+1	+0	-1
Staff Slings	x1	x2	0-90	90-120	120-180
			+1	+0	-1
Light Crossbows	x1	x2	0-100	100-150	150-200
			+2	+0	-1
Heavy Crossbows	x1	x2	0-100	100-180	180-240
			+3	+1	+0
Lt. Bolt Thrower	x5	x1	0-150	150-240	240-300
			+3	+1	+0
Hv. Bolt Thrower	x5	x1	0-150	150-270	270-360
			+3	+2	+1
Ballista	x6	x1	—	100-270	270-420
				+4	+2
Catapult	x7	x1	—	100-300	300-480
				+4	+2

Ballistae & Catapultae cannot be trained on a field target closer than 100 paces, but may range fortifications to 40 paces.

Ranges will be modified by the following terrain factors:

Firing Unit is upslope of target: Increase half range by 10 paces and maximum range by 20 paces per slope contour the firing unit is above the target.

Firing Unit is downslope of target: Reduce half range by -10 paces and maximum range by -20 paces per slope contour the firing unit is below the target's level.

Missile combat is being waged in wooded area: Half range for all missile weapons is 20 paces and maximum range is 60 paces for normal troops (hurled weapons ranges remain unchanged). However, if Elves or Foresters (yeomanry) are engaged, they have a half range of 40 paces and maximum range of 80 paces in woods. Elves and Foresters also will not suffer from a firing in woods penalty.

Horse Archers have medium bow ranges when firing while mounted and standing. Such troops may also have heavy bows and might choose to dismount to fire them.

It should be noted that maximum ranges are effective maximums and do not necessarily reflect the extreme ranges of missile weapons. All fired weapons (not hurled), can be ranged in additional 20-pace increments, with a further -1 per extra 20 paces fired up to a maximum of +40 paces for all bows and slings, and +60 paces for longbows, crossbows, and war engines.

Modifiers

Modifiers for the missile weapons listed above are:

Firing Unit is Class-A	+1
Firing Unit is Elite	+1
Firing Unit is Regular/Semi-Regular and Class-B+	+1
Firing Unit is Elvish	+1
Firing Unit is Centaur (Horse Archers)	+1
Horse Archers firing in face-back position	-1
Horse Archers split-firing across enemy front in sweep	-1 ^a
Firing Unit moving beyond permitted distance in turn	-1

Target is standing cavalry	+2 ^b
Target is cavalry in road column	+2
Target is unarmored horse (unbarded) within ½ range	+1
Target is armored horse (barded)	-1

Target is lancer unit charging the firing missile unit.	-2 ^c
Target is cavalry firing pistols/carbines at missile unit	-2 ^d
Target is 2-3 ranks of infantry in line of charging	+1 ^e
Target is infantry in column/square/road column.	+2 ^e
Target is a single rank of line infantry/skirmish troops.	-1
Target is massed infantry in shield wall/testudo.	-1 ^f
Target is artillery	-2
Target is cavalry/infantry without/unable to use shields	+2
Target is moving over 60 paces in the firing phase	-19
Target is uphill from the firing unit.	-1
Target is under light cover (hedge/fence/wall/etc.)	-1
Target is under dense cover (woods/field fortification).	-2
Target is in hard cover (castle/fort/etc.)	-3

- (a) Do not subtract -1 for movement beyond permitted distance.
- (b) Subtract -1 if a single line of Light/Light-Medium Cavalry.
- (c) Not applied if missile troops are covered by infantry to the front or if protected by caltrops, abatis, or other field fortifications that would break a charge, or if upslope.
- (d) Not applied if missile troops are behind cover.
- (e) Not applied if troops are capable of forming shield wall or testudo, but still applied if fire by heavy crossbows, bolt throwers, or ballistae/catapultae.
- (f) Use is restricted to appropriate nationalities and historical periods.
- (g) Does not include infantry charging toward the firing unit.

FIELDS OF FIRE

All missile troops have standard fields of fire. A change of facing is needed to shift fire beyond these limits:

- (1) Foot archers, crossbowmen, slingers, and troops hurling darts/javelins/axes all have a field of fire in an arc 45° to left and right of facing.
- (2) Horse archers have a field of fire in an arc 135° to left and 45° to right of facing. Fire may be directed 180° to the rear in face-back position at a -1 penalty to missile die rolls; and if moving as well, a further -1 penalty is assessed.
- (3) Chariots and elephants have a 360° field of fire.
- (4) Bolt throwers, ballistae, and catapultae have 45° arcs of fire to left and right of facing.

RATES OF FIRE

Most missile troops have a chance to fire once in a turn. This rate may be increased in some situations. A few types have a slower rate of fire.

- (1) Hurling weapons may be thrown only once per turn. Troops have enough missiles in the unit for 2 volleys per battle and must either recover weapons or replenish from the baggage train if additional fire is desired.
- (2) Bows may be fired once per turn. Foot archers can move ½ marching distance in a turn and also fire without penalty. A greater distance subtracts -1 from the 1D6 missile die roll; and a move over a charge/forced march distance brings a doubled penalty of -2. Troops cannot employ a charge bonus in melee if they have fired in the same turn.
- (3) Longbowmen of Class-A or Class-B, Elite, or Guards status may double-fire in any turn in which they have remained stationary and did not change formation. This is a rapid fire tactic involving firing in each movement phase of the turn, simulating the loosing of the famous 'grey goose flock' in such volume that it seems a veritable 'rain of arrows' in the enemy's position.
- (4) Slingers and staff slingers are rated as archers on foot (see No. 2, above).
- (5) Light crossbowmen can fire once per turn if they do not move more than 20 paces or change formation. Otherwise, they are treated as heavy crossbowmen (see No. 6, below). Mounted crossbowmen can reload on the move, provided that the troops do not exceed standard marching speeds.
- (6) Heavy crossbowmen may fire every other turn. They can move up to ½ marching distance and still fire, loading being accomplished in the assumed intervals between movement. A crossbow formation may be grouped in column (4 ranks), and it is assumed that the frontal ranks will always have loaded weapons if the unit is moving no faster than ½ speed.
- (7) Light bolt throwers are able to fire every other turn, like heavy crossbows. They may be moved up to 20 paces or can change facing without interfering with rate of fire.
- (8) Heavy bolt throwers are able to fire every other turn, like

heavy crossbows. However, if moved or changed in facing there is an additional turn required to reload if 1, 2, 3, 4 is not rolled on 1D6.

(9) Ballistae are very heavy bolt throwers/stone throwers which fire every other turn. Movement or change in facing is treated as described for heavy bolt throwers (see No. 8).

(10) Catapults are heavy stone-throwing engines equivalent to ballistae. Very heavy catapults (onagers, trebuchets) are treated as x2 ordinary catapults and fire every third turn. Change of facing adds an additional turn to reloads, and movement of such weapons is impossible unless they are dismantled (2 turns), moved, and then reassembled (4 turns).

ELIGIBILITY TO FIRE

The following rules govern eligibility of troops to fire missiles:

- (1) All mounted archers/crossbowmen can fire only 1 rank deep when in line of battle. But they can fire over 1 or 2 ranks of non-meleeing infantry directly in front of the mounted unit if the target is at least 20 paces or more to the front of the infantry. Horse archers may also split-fire 3-ranks deep to the side when in road column and executing a sweep across the enemy's front.
- (2) Foot archers/crossbowmen/slingers may fire 2 ranks deep when standing on the flat, and 3 ranks deep when standing on a slope and firing downward. When on the flat, the second rank may fire over either a front rank of missile troops or a rank of covering infantry, but never over mounted troops. On a slope the third rank can fire over 2 ranks in front in the same fashion.
- (3) If foot archers/crossbowmen/slingers or horse archers are on a higher elevation and at least 20 paces back of friendly troops their front (on a lower part of the slope a contour level lower), they can fire over the entire formation into a target at least 30 paces beyond the front of the overfired friendly troops.
- (4) War engines may fire only 1 rank deep. However, a line of foot archers/crossbowmen/slingers may be deployed immediately to their front to simulate missile troops interspersed between the bolt throwers and stone throwers, which do not actually take up the frontage depicted. A single line of regular infantry may also be deployed in this manner, representing the troops detailed to guard the engines against an assault or sally by the enemy. On a slope, war engines may be deployed on a higher level to overfire friendly formations, as described for foot archers (see No. 3).
- (5) All hurled weapons may be thrown only from the front rank, whether the troops are infantry or cavalry.
- (6) **Passing Fire** may be taken by any missile unit which has not fired on any other target in the turn or which does not have written orders specifying fire on a particular target. Passing fire can be directed at any enemy unit coming into ½ range of the troops in either movement phase. Such fire is automatic, the result of the natural inclination of troops to pot away at 'sitting ducks' and targets of opportunity. If the Commander wishes to reserve fire for some reason, he must roll 1D6: 1, 2, 3, 4 for regulars, 1, 2, 3 for semi-regulars, and 1, 2 for irregulars will prevent undesirable passing fire.
- (7) **Counter-charge Fire** is always assumed to take place with short range advantages. In effect, the troops have had the charging enemy under fire for the entire distance and are assumed to have found the range. Hurling weapons are considered to have been volleyed at point-blank range.
- (8) No projectile missile fire may be taken into melee situations once close combat is joined. The chance of hitting friendly troops with most missile weapons is too great to permit fire into a melee by outside units, while engaged troops will be far too busy to fire as well. However, troops armed with hurled weapons may throw them into the flanks/rear of an enemy unit in melee with other friendly units immediately before joining the action themselves. This is a standard tactic, with darts/javelins/axes being hurled at point-blank range just before the new unit drives home its charge.

8.02 HORSE ARCHER TACTICS

Mounted troops armed with bows or crossbows may employ a number of special tactics to take advantage of their considerable mobility:

SPLIT-FIRE

Mounted archers may form road column 3-figures in frontage and sweep out of their lines to gallop across the front of the enemy to fire their bows/crossbows. The maneuver is done in both movement phases.

In the first phase, the archers ride forward up to ½ charge distance, approaching the enemy lines at an angle up to 45°. At a pre-determined fire/turn point the troops fire and then wheel in column to retire toward their own lines. Retirement occurs in the second phase, with all remaining movement being used by the withdrawing troops. A free formation change is possible up to the permissible expansion/contraction



limits of the troops to prevent the tail end of the column from 'hanging out' too far in back. The wheel in column can be up to 90° and is made as part of the movement.

Most horse archers cannot split-fire and then charge into a melee in the same turn (no charge bonus after split-fire). Byzantine Cataphracts are an exception. They can advance in line, split-fire at an enemy unit at short range in the first phase, and then charge in the second phase.

Of course, the enemy may return fire simultaneously with the split-fire.

If split-firing horse archers are counter-charged by enemy cavalry in the first phase, measure off ½ the distance that could be covered by the counter-charging troops. If they can reach the fire/turn point of the horse archers in the first phase of movement, the horse archers have been engaged in melee. In such an instance, the horse archers can either deliver a charge of their own or they can fire at the charging enemy and then engage in simple melee without a charge bonus. If caught, the horse archer road column will wheel into line to face the charge or will expand formation to the permissible limit, whichever is most advantageous.

If charging enemy cavalry cannot reach the fire/turn point in the first phase or began their charge in the second phase, the horse archers will conduct a normal retirement, facing back to fire on the pursuing cavalry (if fire was not taken in the first phase). This is effectively an evasion tactic.

PURSUIT

Horse archers may hotly pursue enemy troops and fire at them up to a range of 90 paces at the end of movement. They may also melee the troops if they gain contact, but cannot use a charge bonus in melee.

STANDING FIRE

Horse archers may fire while mounted and standing, and are treated as foot archers in this mode, with 45° arcs of fire. They also count as stationary horse for missile targeting purposes and cannot counter-charge a charging enemy cavalry/infantry unit. Thus they have no charge bonus in melee. They may also dismount (½ phase required), deploy, and fire heavier bows on foot. Remounting also takes ½ phase. Thus the troops can dismount in the first phase of a turn, fire in the second, and remount in the first phase of the next turn. A dismount/remount includes a free formation and facing change.

MOUNTED ARCHER TYPES

Mounted archers typically include LC, LMC, MC, and LHC armed with bows or light (stirrup) crossbows. Cataphracts (AC of the late Roman and Byzantine periods) may also employ horse archery tactics, as may camelry. Chariots and elephants also carry archers, and fire can be taken on the move. However, split-fire tactics are not used as such. If firing in a charge turn, chariotry and elephants fire at ½ distance from the enemy, then deliver the charge.

8.03 MUSKETRY

All troops equipped with firearms carry enough powder and ball for one day's battle and must normally replenish ammunition from munitions in the baggage train at the end of the day.

It should be noted that an arquebus could theoretically kill at 400 paces, but it was generally useless to aim at a target over 100 paces distant—particularly if the target was well armored. Massed musketry fired into dense formations of the enemy at close range proved to be most effective!

Musketry effects are found by rolling 1D6 per 3 figures firing, with a total modified score of 3+ required to score 1 'kill'. A 7+ result scores 2 'kills' against close order infantry and cavalry, and 8+ scores 2 'kills' against loose and open order troops. This requires multiple dice rolls, but that is easy enough if a number of D6 are rolled at once. The 1D6 result is modified by the following factors:

Weapon	Range In Paces/1D6 Adds					
Medieval	.0-10	10-30	30-60	60-100	100-150	
Handgun	-1	-2	-3	-4	-5	
Pistol	.0-10	10-20	20-40			
	+1	+0	-4			
Carbine	.0-20	20-50	50-100	100-150		
	+2	+0	-2	-4		
Arquebus	.0-20	20-50	50-100	100-200	200-300	300-400
	+2	+0	-1	-2	-3	-5

Pistols have an arc of fire 180° to the left and 135° to the right in mounted units. Dragoons firing carbines from horseback have an arc of fire 90° to the left and 45° to the right. Dismounted dragoons can fire carbines as arquebuses. Arquebuses have an arc of 45° to left and right and are infantry weapons.

MUSKETRY MODIFIERS

Firing on skirmishers and other open order troops -1
 Firing on troops behind soft cover -1
 Firing on troops behind hard cover -2
 Arquebusiers using musket rests/weapons supported on walls. . . . +1
 Firing troops are Class-A. +1
 Firing troops are Elite/Guards. +1
 First-class armor at 100-300 paces (SHAC/VHAC/SHAI/VHAI) . . . -3
 Full armor at 100-300 paces (HC/AC/HAC/HI/HAI). -2

Beyond 300 paces musketry is ineffective against fully armored men.

PISTOLS

Most Renaissance (16th century and early 17th century) cavalry were armed with a brace of pistols, usually wheellocks. To reload a pistol requires one movement phase, so both can be reloaded and fired each turn, provided that the cavalry unit moves at a slow walk (normal speed). Troops may take their maximum movement in a firing turn, but are limited to a slow walk in the reloading turn, which may occur later. Reloading cannot take place in a melee turn, obviously.

Pistols can be used tactically in several ways:

(1) A rank of horsemen can fire one pistol per movement phase. This usually occurs in a charge at an assumed range of 10-20 paces, and may be done by troops armed with lances as well as those using swords. Casualties are removed prior to the impact and melee.

(2) Meleing horsemen can fire a pistol after the first turn of melee if still locked in close combat and if they still have loaded pistols. Such fire is assumed to occur at 20-40 paces to simulate the difficulty of accurate fire, even though the weapons are actually being discharged at point-blank ranges in the middle of a melee. Only the front rank of cavalry may fire, and casualties are removed along with those sustained in the melee itself.

(3) Cavalry may form a road column and conduct split-fire sweeps across the front of enemy infantry, as described earlier for horse archers. The troops may fire 3 ranks deep to either flank with pistols, delivering one volley per phase at 10-40 paces. Note that such tactics are reserved for the harassment and discomfiture of infantry and never are employed against enemy cavalry.

(4) Caracole tactics involve the cavalry advancing in double line to within 10 paces of a body of infantry to fire pistols into the massed foot at point-blank range! One pistol can be fired by each horseman in both lines in each movement phase. The firing rank wheels in column to the rear to reload and to draw and cock a second pistol for a volley in the second phase. When using caracole tactics, the cavalry will advance no more than ½ slow walking distance to deliver the attack if it wishes to reload in the same turn. (This effectively gives each horseman a loaded pistol by the end of the second movement phase, though 2 pistols have already been fired, and this could be fired at the end of a melee in the same turn!) Alternately, an advance can be made at the charge.

At the end of the second phase of fire, the cavalry will either couch lances or draw sabres and charge, or it will retire to its own lines by using a free wheel in column and moving the distance remaining from their movement allowance.

It should be noted that infantry bitterly resent such treatment and may opt to charge/counter-charge the cavalry at the end of the second

phase. This is counter to usual infantry behavior, but if they have stood firm in morale, they will have the nerve (and desperation) to come to grips with the cavalry. This gives the infantry impetus of their own in the melee or else a chance to catch retiring cavalry in the rear and 'punish' it for its savage mauling of the foot troops in the caracole.

It should be also be noted that a caracole against infantry will instantly be aborted if enemy cavalry charge the troops in caracole. This shifts the action into a cavalry vs cavalry battle (cavalry in caracole are usually under standing orders to counter-charge charging enemy cavalry).

(5) Troop guns may be deployed in late Renaissance armies. These are a pair of horse-drawn light field batteries used in the manner introduced by the incomparable Gustavus Adolphus. Two figures of light 4-pdrs. accompany the cavalry in caracole and unlimber behind the lines of pistol-firing cavalry. They are momentarily unmasked in the second phase, fire cannister into the infantry, and then limber up for retirement in the next turn, while the cavalry goes in with lance or sabre to finish off the hapless foot. Such tactics require that the guns move no more than ½ charge distance and that they be crewed by Class-A artillerymen.

DRAGOONS

Cavalry may also be armed with carbines and muskets. Dragoons may fire in 1 rank when mounted, using the carbine ranges and adds. Or they may dismount (requiring 1 phase to dismount and deploy) and fire in 2 ranks as arquebusiers. If firing when mounted, Dragoons may subsequently deliver a charge and fight with sabres. A charge volley is delivered at 20-50 paces range. They can also mount a caracole, with 1 rank firing every phase or both ranks in the same phase, followed by a charge or a retirement. Reloading on horseback can be accomplished in any turn in which movement is at a slow walk, and fire can be delivered in the same turn as reloading. Dragoons can thus fire once per turn when mounted. When dismounted, they can fire as infantry. It should also be noted that a split-fire sweep across the enemy's front is possible, but fire will be at 50-100 paces equivalent range to simulate the difficulty of aiming a long gun at the gallop. The actual range should be 20-60 paces, and 3 ranks may fire to the flank in the road column used to deliver the attack.

INFANTRY MUSKETRY

Infantry are armed with heavy muskets—either wheellocks or matchlocks, for the most part, although some flintlocks may be present.

(1) Infantry fire in 2 ranks and may fire/reload in the same turn if they do not move more than ½ standard marching distance in the turn.

(2) Infantry remain stationary throughout a turn and do not change formation, they may attempt to double-fire (excluding medieval hand-guns and very early Renaissance matchlocks). Roll 1D6: 4, 5, 6 allows Class-A Elite, and Guards units to double-fire; 5, 6 allows Class-B troops to double-fire; and 6 allows Class-C troops to double-fire. Such troops must be regulars or semi-regulars—representing the best line infantry.

(3) If movement limits are exceeded, regulars may still reload by rolling 4, 5, 6 on 1D6; semi-regulars a 5, 6. Class-A, Elite, and Guards units reload on 3, 4, 5, 6.

(4) Infantry may lay down a continuous, rolling fire in each phase by dividing their fire so that 1 rank fires in each movement phase. If double-firing, this means that 2 ranks fire in each phase.

(5) Infantry may also choose to fire at the end of a melee round. This means that the front rank will have to engage in the melee alone and cannot reload (if arquebusiers). The second rank may have fired in the turn but can reload in the melee if not engaged and fires at the end. (This cannot be done if double-fire was used in the turn). The range is assumed to be at 50-100 paces to simulate fire that is hurried and delivered in a somewhat chaotic situation. Troops firing in this manner cannot fire in the next turn unless they effect a reload as described in No. 3 above.

OVERHEAD FIRE

All infantry can fire a second rank over the heads of a front rank of troops, either another rank of arquebusiers or a rank of covering line infantry. Mounted dragoons and pistoleers can also fire over a rank of infantry to the front. If drawn up on a slope, 3 lines of infantry or 2 ranks of mounted troops can fire downslope. If placed 20 paces back of troops on a lower contour level, overfire can be directed over the formation and into an enemy unit 30 paces or more to the front of the intervening troops. Note that a 'second rank' is a line of stands touching a 'first rank' or line of stands immediately to their front (relative to the target).

8.04 GUNPOWDER ARTILLERY

For simplicity's sake, gunpowder artillery is treated in a manner

similar to musketry. Artillery effects are found by rolling 1D6 per gun figure firing. The results are based upon the following total modified scores:

1D6	Artillery Results
1-2	Miss
3-4	1 Figure killed
5-6	2 Figures killed
7-8	3 Figures killed
9-10	4 Figures killed
11+	5 Figures killed
12+	6 Figures killed
13+	7 Figures killed
14+	8 Figures killed
15+	9 Figures killed

1D6	Counter-Battery Results
1-4	Miss
5-7	1 Artillerist killed
8-9	2 Artillerists killed
10+	3 Artillerists killed

Note: If a kill is scored, roll 1D6 again. A 1 destroys the engines/guns if solid shot was fired by guns, bombards, or heavy war engines. Note: all engines/guns suffer -1 from 1D6 firing rolls per crewman lost.

Weapon	Range in Paces/1D6 Adds				
Lt. Bombard	0-100	100-200	200-300	300-400	
Solid Shot	+1	+1	-2	-4	
Cannister	+2	+1	-5	-	
Hv. Bombard	0-100	100-200	200-300	300-400	400-500
Solid Shot	+1	+1	+0	-1	-3
Cannister	+3	+2	-3	-	-
Lt. Field Gun	0-100	100-200	200-300	300-400	400-500
Solid Shot	+1	+1	+1	-1	-3
Cannister	+2	+2	-3	-	-
Mdm. Field Gun	0-100	100-200	200-300	300-400	400-600
Solid Shot	+3	+2	+1	-1	-3
Cannister	+5	+3	-2	-	-
Hv. Seige Gun	0-100	100-200	200-400	400-600	600-800
Solid Shot	+4	+3	+1	-2	-4
Cannister	+7	+4	+0	-	-

ARTILLERY MODIFIERS

Firing on skirmishers and other open order troops	-1
Firing on troops behind soft cover	-1
Firing on troops behind hard cover	-2
Artillery troops are Class A	+2
Artillery troops are Class B	+1
Artillery troops are Regulars	+1

RATES OF FIRE

Lt. Bombard	once every other turn
Hv. Bombard	once every other turn
Lt. Field Gun	once per turn
Mdm. Field Gun	once every other turn
Hv. Seige Gun	once every other turn

All guns are considered to have a 45° field of fire to either side of frontal facing.

8.05 COUNTER-BATTERY FIRE

War engines and guns may engage in counter-battery fire by rolling 1D6 on the Counter-Battery Results table. Note that all heavy seige engines are rated as Lt. Bombards firing solid shot for this purpose. All guns and light bombards are rated as equivalent to open order troops (dispersal effect). Heavy engines are rated as equivalent to close order troops.

War engines may be served so long as there is 1 artillerist present, with casualty replacements possible from any troop type. Gunpowder artillery may be served so long as there is 1 gunpowder artillerist present, with casualty replacements possible only from musket-armed troops. Cavalry 4-pdr. troop guns may have replacements from any cavalry armed with firearms.

War engines and guns may be destroyed or spiked by troops over-running them and rolling 1-3 on 1D6 after remaining in place at the weapons for one turn once the crews have been slain or driven off. Alternately, one may attempt to carry off captured engines and guns.

9.01 CLOSE COMBAT

Melee is the close combat which will result whenever two opposing units are in physical contact with each other's stands.

A **charge** is an assault in which the troops advance rapidly to develop the impetus needed to contact the enemy line with great force. Charge bonuses, and sometimes post-charge bonuses as well, will be awarded to modify combat die rolls in charge turns, and in subsequent melee turns.

ELIGIBILITY FOR MELEE

The troops eligible to engage in melee will depend upon the type of troops involved:

(1) All cavalry charges/melees with 1 rank of figures. This will include horse-mounted troops, chariotry, camelry, and elephants.

(2) All infantry will melee with 1 rank of figures when defending against a cavalry charge/melee in the first turn of the action.

(3) Line infantry fights other infantry in charge/melee with 1½ ranks of figures in the first and subsequent turns. It normally can meet a cavalry charge with only 1 rank, but it can charge enemy cavalry in flank/rear with 1½ ranks. In subsequent melee turns against cavalry, line infantry fights with 1½ ranks.

(4) Pike-armed infantry fights other infantry in charge/melee with 2 ranks of figures in the first turn and with 2½ ranks in all subsequent turns—simulating the greater reach of the weapons. It receives a cavalry charge with 2 ranks of figures, and will melee in subsequent turns with 2 ranks of figures.

(5) Skirmishing light and light medium infantry, and all archers, slingers, crossbowmen, and artilleryists melee with 1 rank in charge and subsequent melee turns.

TROOP MELEE CLASS

Each type of troops is assigned a melee class. Find the difference between the melee classes of the opposing units. The lower class unit subtracts a minus from its combat die roll equal to the difference between its melee class and that of its opponent. Note: in some instances, both sides will have the same melee class number, but they may still be distinguished by differing letters, as in 3b and 3c. This means that the unit

with the letter closest to 'a' has an advantage due to superior armor, and the other unit will subtract -1 from its combat die roll. In the 3b vs 3c example, the 3c unit subtracts -1 because the 3b unit is closer to the 'a' level. Troop melee classes are as follows:

Troop Type	Class	Charge	Post-Charge
SHAC Super Hv. Arm. Cavalry	.5a	+3	+1
VHAC Very Hv. Arm. Cavalry	.5b	+3	+1
HAC Hv. Armored Cavalry	.5c	+2	+1
AC Armored Cavalry	.4a	+2	+1
HC Heavy Cavalry	.4b	+2	+1
LHC Light Heavy Cavalry	.4c	+2	+1
MC Medium Cavalry	.3a	+2	+1
LMC Light Medium Cavalry	.3b	+2	+0
LC Light Cavalry	.3c	+2	+0
LHCM Light Heavy Camelry	.3a	+2	+1
MCM Medium Camelry	.3b	+2	+1
LMCM Light Medium Camelry	.3c	+2	+0
LCM Light Camelry	.3d	+2	+0
HCH Heavy Chariotry	.5a	+4	+1
LCH Light Chariotry	.4a	+3	+1
EL Elephants	.5a	+5	+1
SHAI Super Hv. Arm. Infantry	.4c	+1	+0
VHAI Very Hv. Arm. Infantry	.4d	+1	+0
HAI Hv. Armored Infantry	.3a	+1	+0
HI Heavy Infantry	.3b	+1	+0
LHI Light Heavy Infantry	.2a	+1	+0
MI Medium Infantry	.2b	+1	+0
LMI Light Medium Infantry	.1a	+1	+0
LI Light Infantry	.1b	+1	+0

Fantasy troop types may also be used. The following table gives the specifications for such troops. It should be noted that some types have an equivalent strength of several figures. In such cases, they are treated as multiple-troop types, as described for chariotry and elephants.

Fantasy Troop Type	Class	Charge	Post-Charge	Figure Equiv.
ELVES				
HAC Hv. Armored Cavalry	.5c	+3	+1	x1 HAC
AC Armored Cavalry	.4a	+2	+1	x1 AC
MC Medium Cavalry	.3a	+2	+1	x1 MC
HAI Hv. Armored Infantry	.3a	+1	+0	x1 HAI
HI Heavy Infantry	.3b	+1	+0	x1 HI
MI Medium Infantry	.2b	+1	+0	x1 MI
LMI Light Medium Infantry	.2c	+1	+0	x1 LMI
LI Light Infantry	.2d	+1	+0	x1 LI
DWARVES				
HAI Hv. Armored Infantry	.3a	+1	+0	x1 HAI
HI Heavy Infantry	.3b	+1	+0	x1 HI
GNOMES/HAEFLINGS				
HI Heavy Infantry	.2a	+1	+0	x1 HI
LHI Light Heavy Infantry	.2b	+1	+0	x1 LHI
MI Medium Infantry	.1a	+1	+0	x1 MI
LMI Light Medium Infantry	.1b	+1	+0	x1 LMI
SAURIAN HSS'TAATHI				
EL Triceratops	.5a	+6	+2	Elephant
SHAC Hch'Ait K'Haasst Cavalry	.5a	+3	+1	x1 SHAC
AC Tss'Haasst Arm. Cavalry	.4a	+3	+1	x1 AC
HC Tss'Haasst Hv. Cavalry	.4b	+2	+1	x1 HC
HAI Sslissi Hv. Arm. Inf	.4c	+1	+0	x1 HAI
HI Hssalkh Hv. Infantry	.3a	+1	+0	x1 HI
MI T'Kah Medium Infantry	.3c	+1	+0	x1 MI
LMI Ss'iss'ke Lt. Mdm. Inf	.2b	+1	+0	x1 LMI
CENTAUR CAVALRY				
AC Armored Cavalry	.5c	+3	+1	x1 AC
HC Heavy Cavalry	.4a	+3	+1	x1 HC
LHC Light Heavy Cavalry	.4b	+2	+1	x1 LHC
MC Medium Cavalry	.4c	+2	+1	x1 MC
LMC Light Medium Cavalry	.4d	+2	+1	x1 LMC
LC Light Cavalry	.3a	+2	+1	x1 LC
ENTS				
ENT Ent Master	.3b	+2	+2	x5 HI
ENT Entish Troops	.3b	+2	+2	x3 HI
KOBOLDS/GOBLINS/ORCS				
HI Uruk Heavy Infantry	.3b	+1	+0	x1 HI
LHI Uruk Lt. Hv. Infantry	.2a	+1	+0	x1 LHI

Fantasy Troop Type	Class	Charge	Post-Charge	Figure Equiv.
MI Uruk Medium Infantry	.2b	+1	+0	x1 MI
HI Goblin Heavy Infantry	.2a	+1	+0	x1 HI
LHI Goblin Lt. Hv. Infantry	.2b	+1	+0	x1 LHI
MI Goblin Medium Infantry	.1a	+1	+0	x1 MI
LMI Goblin Lt. Mdm. Infantry	.1b	+1	+0	x1 LMI
MMI Wolf-Mounted Mdm. Inf	.3b	+1	+1	x1 MI
TROLLS				
HAI Water Trolls	.3a	+3	+1	x4 HAI
HAI Wood Trolls	.3a	+3	+1	x3 HAI
HAI Hill Trolls	.3b	+3	+1	x3 HAI
HAI Cave Trolls	.3b	+2	+1	x3 HAI
GIANTS & OGRES				
HI Giants	.3b	+2	+1	x5 HI
HI Ogres	.3b	+2	+1	x4 HI
UNDEAD				
LHI Zombies	.2b	+1	+0	x2 LHI
LHI Skeletons	.2a	+1	+0	x2 LHI
HI Armored Skeletons	.3b	+1	+0	x2 HI
HAI Cursed Slain Warriors	.3a	+2	+1	x2 HAI
HI Ghouls w. Undead	.3a	+2	+1	x3 HI
HAI Vampire w. Undead	.4d	+2	+1	x3 HAI
SHAI Spectre/Wraith (foot)	.4c	+3	+1	x4 SHAI
SHAC Spectre/Wraith (mounted)	.5a	+3	+1	x4 SHAC
DEMONICS				
HI Gargoyles	.3a	+2	+1	x3 HI
HAI Lesser Balrog	.3a	+3	+1	x5 HAI
VHAI Great Balrog	.4d	+3	+1	x6 VHAI
HAI Djinn of the Ring	.4d	+3	+1	x6 HAI
VHAI Djinn of the Lamp	.4c	+3	+1	x6 VHAI
SHAI Ifrit of the Ring	.4b	+3	+1	x6 SHAI
SHAI Ifrit of the Lamp	.4a	+3	+1	x7 SHAI
HAI Demonic Infantry	.3a	+2	+1	x2 HAI
SHAC Demonic Cavalry	.5a	+3	+1	x2 SHAC
SHAC Chevalier de L'Enfer	.5a	+5	+2	x5 SHAC
ELEMENTALS				
HAI All Elementals	.4a	+2	+2	¾MKLx HAI
TOTEMS & WEREBEASTS				
HAI Shamanistic Totem	.4a	+2	+2	½MKLx HAI
HAI Werewolf w. Wolves	.3a	+2	+1	x3 HAI
HAI Wereboar w. Boars	.3a	+2	+1	x3 HAI
VHAI Werebear w. Bears	.4d	+2	+1	x3 VHAI
VHAI Werelion w. Lions	.4d	+2	+1	x3 VHAI
SHAI Weretiger w. Tigers	.4c	+2	+1	x3 SHAI
LEGENDARY BEASTS				
MC Great Eagle	.3a	+4	+1	x3 MC
HC Roc	.4b	+4	+1	x4 HC
AC Great Roc	.5a	+5	+1	x8 AC
SHAC Young Dragon	.5a	+3	+1	x5 SHAC
SHAC Mature Dragon	.5a	+4	+1	x8 SHAC
SHAC Old Dragon	.5a	+4	+2	x12 SHAC
SHAC Ancient Dragon	.5a	+5	+2	x15 SHAC
SHAC Great Wyrn	.5a	+5	+2	x18 SHAC



CLOSE COMBAT PROCEDURE

To conduct close combat in charge/melee actions, follow these steps.

- (1) Determine the numbers of engaged figures in each unit.
- (2) Roll 1D6 for each unit engaged in the charge/melee.
- (3) Modify the 1D6 result obtained by each unit in the action:

Difference in melee class (to lower unit's 1D6 result) (-)
 Unit's charge bonus, if charging this turn (+)^a
 Unit's post-charge bonus, if it charged last turn (+)^a

Cavalry/chariotry/camelry/elephants charging infantry +2^a
 Per rank of infantry over 2 ranks vs your mounted charge -1^b
 Pike armed infantry vs your mounted charge -1^b
 Heavy chariotry w. scythed wheels and charging infantry +1
 Cavalry/chariotry facing elephants and unused to them -1
 Cavalry/chariotry facing camels and unused to them -1
 Cavalry/chariotry/camelry charge reduction vs elephants -2
 One rank of infantry meleeing against cavalry/camelry -1
 Infantry meleeing against chariotry -1
 Infantry meleeing against elephants -1

Your troops fighting enemy without/unable to use shields +1
 Your troops attacking enemy in flank +1
 Your troops attacking enemy in rear +2
 Your troops are charging downhill +1
 Your troops are not LI/LMI and are fighting upslope -1^c
 Your troops are not LI/LMI and are fighting in woods -1^d
 Your troops are not LI/LMI and are fighting in swamps -1^e
 Your troops are wading a ford -1^f
 Your troops are swimming a stream -3^g
 Your troops are defending over caltrops/stakes/abatis/
 stream edge/low wall/beach/ditch +1^h
 Your troops are defending a wall/parapet +1^h
 Your troops are attacking a defended line of caltrops/
 stakes/abatis/stream edge/low wall/beach -1
 Your troops are attacking a defended wall/parapet -2ⁱ
 Your troops are fighting enemy formed in shield wall
 or hollow square/tortoise -1
 Your troops are not pike armed or mounted and are
 fighting against pikemen/axemen/halberdiers -1
 Enemy troops are disorganized +1^j
 Enemy troops are demoralized +1^k

Your troops are regulars fighting semi-regulars +1
 Your troops are regulars fighting irregulars +1
 Your troops are semi-regulars fighting irregulars +1
 Your troops are fanatics or bent on revenge +1
 Your troops are Nordic-style berserkers +2
 Your troops are elite Guards +1
 Your troops are Class-A Chivalrics +1
 Commander/Hero/SuperHero Figure +2^l
 Commander/Hero/SuperHero present in unit +1^m

(a) Charge bonuses are eliminated for all except LI/LMI when charging upslope. No charges are possible in woods, unless troops are Elvish infantry. No charges are possible in swamps/marshes, unless troops are swamp-dwelling Kulun Ss'athi saurians. Charges are possible across fords but not across deep streams. Muddy ground reduces cavalry charge bonuses by 1/2, rounded down to the nearest whole number.

(b) Negatives for infantry mass and for use of pikes will not do more than reduce charge bonuses of mounted troops to zero.

(c) Light troops enjoy special advantages on slopes and do proportionally better on such ground than do heavier troops.

(d) Light troops enjoy special advantages in woods. All Elvish infantry are also exempt from this penalty.

(e) Light troops enjoy special advantages in swamps and marshes. All Kulun Ss'athi saurians are exempt from this penalty as well, being natives of such regions.

(f) While a ford permits a charge, the water is deep enough to impede movement and impair fighting ability. A -1 is applied to all charge/melee actions.

(g) Swimming troops lose all charge bonuses and suffer a further -3 penalty in combat.

(h) Such defenses preclude use of any charge bonuses. Siege towers will negate walled defenses, however, and if they overreach the parapets, the defenders will be placed at a disadvantage, rather than the attackers. Ramps may also be employed to negate walled positional advantages.

(i) This penalty simulates the difficulty of scaling a walled defense work and simultaneously trying to inflict casualties of the defenses. Towers and ramps negate the penalty.

(j) Disorganization results whenever a unit is caught by a charge in the phase it is changing formation, in the turn following the break-off or a melee, or when engaged in an uncontrolled pursuit or a rout. Disorganization also may occur if a unit is attacked in flank or rear. Of course, any unit failing a morale test is automatically disorganized. To reorganize, a unit requires one turn in which it is fully disengaged by the enemy and does not suffer excessive levels of casualties (under 10% of current strength) from enemy missile fire. A commander or hero figure present in the unit can effect reorganization immediately with 1,2,3 on 1D6.

(k) Demoralization occurs whenever troops fail a morale test and do not perform as ordered or else break and rout. Of course, the only exception is an uncontrolled advance, which is contrary to orders but evidences high rather than low morale.

(l) Commander/Hero/SuperHero figures enjoy equivalent fighting prowess to berserkers. Do not add berserker bonuses or fanatic bonuses unless appropriate. The figure is fought singly rather than as part of any unit to which it is attached, but casualties are taken by the unit until only the command/hero figure is left.

(m) Any unit with a commander or hero present will fight with special bravery and prowess because the troops know they are under the eyes of such illustrious personages and have the example and support of the best leader/mightiest warrior in their army. In effect, the unit assumes the temporary status of an elite Guards unit.

MINIMUM CASUALTIES

It is possible that even a powerful unit will have die rolls so reduced by modifications that no losses will be inflicted on the enemy. This is not entirely realistic, so assume 10% 'kills' will occur if the 1D6 roll is a 6, no matter how many negatives there are which reduce the corrected result to zero levels.

MAXIMUM CASUALTIES

No matter how powerful a unit is, and no matter how many adds the unit has on its 1D6 roll, no more than 200% of the engaged figure strength may be inflicted as 'kills' on the enemy in any melee turn.

PUSHBACK

At the conclusion of each melee turn, the side losing the greater number of figures will be pushed back 10 paces. If a unit is backed against an impassable barrier (such as a wall, stream, cliff, etc.), the unit will not be pushed back but is considered disorganized.

CAPTURE OF A STANDARD

Each unit should have a standard which represents the position of the unit commander. Elimination of an entire enemy unit will, of course, automatically capture its standard. A Hero/SuperHero may also capture a standard if his figure comes into base to base contact with the enemy standard and a roll of 5, 6 is made on 1D6. The standard may also be captured by cavalry on a roll of 5, 6, and by infantry on a roll of 6. An attempt to capture the enemy's standard may be made in any melee turn in which the enemy has been pushed back. The loss of a standard forces an immediate morale test by the unit. Each standard lost by the army also imposes a general morale penalty on future morale tests by all of its units.

Standards may also be recaptured (the figure bearing the standard will be placed in the unit capturing it) if the capturing unit is destroyed or routed in subsequent actions.

9.02 AMBUSH

Ambushes require the presence of a referee to adjudicate hidden deployment and movement.

Troops concealed in a wooded area may declare an ambush against any enemy unit outside the woods and within charge distance of the hidden unit, or inside a woods and within normal marching distance (corrected for woodland terrain). The declaration of an ambush pins down the target unit and allows it only a 20-pace evasion move.

Ambushed units with missile weapons may fire only 1/2 the number normally eligible. The range is considered to be long for hurled and archery weapons. All gunpowder smallarms have a -2 on fire rolls. Artillery of all types is utterly 'surprised' and cannot fire at all.

In the first turn of charge/melee, the ambushed unit is considered disorganized and can fight with only 1/2 the number of troops normally eligible. In subsequent turns, the ambushed unit may fight with all eligible troops, but is still disorganized. It may not countercharge in the first turn, if charged by the ambushing troops.

If the ambushed unit is destroyed in the initial turn of combat, the ambushers may continue their charge move to the limit of their movement and may make a second charge/melee attack against any other enemy unit they can contact. Alternately, they can remain in place and regroup.

An ambush will be discovered if there are scouts (advance troops) within 60 paces of the hidden troops and 4, 5, 6 is rolled on 1D6. Elves will always detect a prepared ambush against them in wooded country, and themselves require a 5, 6 rolled on 1D6 to be discovered in ambush positions. Of course, any scouting unit actually coming in contact with the ambushing troops will detect them and sound the alarm.

9.03 PIKEMEN & SHORTSWORDSMEN

Renaissance tactics often placed a line of shortswordsmen in a pike formation whenever the unit was faced by opposing forces armed with pikes or spears. This can be simulated by placing a rank of swordsmen to the rear of the pike troops.

Whenever the pike contact another unit of pike or spear armed troops, the charge turn is converted into an attempt to 'lift pikes'. Each side rolls 1D6, and the winner successfully raises the pikes of its opponent. The swordsmen are assumed to pass through the ranks to the front at this point, to do terrible execution amongst the opposing pikemen.

If the opposing formation has no pikemen, they will prevent a 'lift of pike' if they roll equal to or higher than the troops with the swordsmen. Otherwise, the swordsmen will come in under the pikes.

If both formations have swordsmen, the side winning the 'lift of pikes' will be able to send in its swordsmen in that turn. A roll to 'lift pikes' will be made each turn, with the winner able to send in its swordsmen against the opposing pike. If only one formation has pikes, it must hope for the win to prevent the pikes from being raised if it desires to avoid engagement by the enemy swordsmen. Again, a roll is made each turn to 'lift pikes' or to avoid such an occurrence.

Clearly, this is a very bloody business indeed! It is limited only by the number of swordsmen available and by the steadfastness of the troops. One rank of swordsmen may be attached to each two ranks of pikemen: 3 ranks of pike may have 1½ ranks of swordsmen; 4 ranks may have 2 ranks of swordsmen. As the front rank loses casualties, replacements may be fed in from behind to fill the gaps in the next turn. Once a sufficient number of swordsmen are slain to prevent a full rank from being formed, gaps will be filled by pikemen.

In any turn in which a 'lift of pikes' cannot be accomplished, the pikemen melee with -2 to their 1D6 combat rolls, as they were attempting to raise pikes or prevent it much more than they were attempting to kill their opposing numbers in the enemy line.

Roman-style shortswordsmen may attempt a variation on this tactic. If such troops roll 4, 5, 6 on 1D6, the front rank may slip under the enemy pikes/spears, effectively raising them with their heavy infantry shields and getting in close enough to obtain a 'free' initial attack on the densely packed and virtually helpless pikemen. If they fail, the pike can make a normal attack on the shortsword formation in that turn. The tactic can be tried in each turn the melee continues. Such tactics will be just successful enough to teach the lesson of what 'Pyrrhic Victory' really means. Only trained regulars and semi-regulars should be allowed to use this mode of attack.

9.04 CAVALRY PURSUIT

Cavalry will normally pursue a defeated foe if they are able to do so. In order to rally pursuing cavalry back, roll 1D6:

Regular cavalry forces rally on	4, 5, 6
Semi-regular cavalry forces rally on	5, 6
Irregular cavalry forces rally on	6

Elite and Guards units add +1 to 1D6 rolls. Troops led by a Commander/Hero/SuperHero always rally back if desired.

A cavalry unit in pursuit will continue the action until it has rallied or until the unit it is pursuing has managed to rally. In the latter instance, the two forces may then charge each other and try to settle the matter once and for all.

9.05 HEAVY CAVALRY BREAKTHROUGH

Heavy cavalry may be ordered to break through when they charge an infantry formation. If the charging heavies inflict twice as many casualties as they receive in the charge turn of melee, and the infantry losses are 20% or more of their strength at the start of the melee, the cavalry has broken through the infantry formation.

When breaking through, the heavy cavalry may use the remaining portion of their unused charge distance to charge enemy units to the

rear. If a breakthrough is continued in a straight line along the direction of the original charge, the heavy cavalry still have their full charge bonus. If a change in direction occurs, they have only their post-charge bonus. Attacks can continue in this manner until the cavalry runs out of movement.

Infantry who have had their front shattered by a heavy cavalry breakthrough are disorganized throughout the following turn. They must also test morale the instant the heavy cavalry passes through them. If they break and rout, they will stream back and attempt to interpenetrate any friendly unit to their rear, which disrupts the interpenetrated unit before the arrival of the heavy cavalry. Such a unit placed to the rear will also have to test morale because the troops to its front have broken, and because it is about to receive a cavalry charge. Note that this applies to all cavalry rated as heavier than HC as well.

9.06 LIGHT & MEDIUM CAVALRY TACTICS

Unlike heavy cavalry, light and medium cavalry can break through enemy infantry only if (1) ordered to do so, and (2) they are able to wipe out all the enemy foot in the unit, or else the enemy foot must fall back/rout before the melee starts because of failed morale.

The chief advantage enjoyed by light/medium cavalry is that they can disengage from melee with other types of troops. All other troops are considered locked in close combat for three turns once melee has been joined. But as long as light/medium cavalry have moved in the turn in which the melee is initiated, they can break off the action after only one turn of melee.

For instance, a light/medium cavalry unit has orders to charge, melee, and then retire after one round of melee. The charge and melee are considered to take place in the first phase of movement. At the conclusion of all normal phase two movement and completion of all other missile fire and melee actions, the light/medium cavalry unit can retire. Alternately, the light/medium cavalry can charge and melee in the second phase of movement. In the first phase of movement in the turn immediately following, the cavalry can break off and retire. In the second phase, they could turn around to face their enemies again or else change formation.

The disengagement and retirement is accomplished in a single phase and involves (1) a free turn around up to 180° and (2) movement over the distance remaining from the charge.

9.07 CAVALRY VS INFANTRY

All cavalry, camelry, and chariots may choose to break off action with infantry after only a single turn of melee. If cavalry has charged, and a break-off order has also been written for the charge/melee turn, the troops can about face and withdraw the distance remaining in their charge movement in the end of the charge/melee turn. In the following turn, the cavalry can move up to normal marching distance, turn about, and reform in preparation for another charge in the following turn.

Infantry may misread this rallying back to reform and might attempt to pursue the 'fleeing' horse. This can be prevented by rolling 1D6: 3, 4, 5, 6 restrains regulars, who largely know what they are doing; 4, 5, 6 restrains semi-regulars, who again are not fools; and 5, 6 restrains hotheaded irregulars. If a Commander/General figure is present, +1 is added to the 1D6 roll. If a Hero/SuperHero is present, -1 is subtracted from the 1D6 roll if the troops and Hero/SuperHero are irregulars. (Such types are clearly 'glory hounds'!)

If a pursuit is desired or else results from precipitate action, the infantry have a chance of catching the cavalry and do so with one rank of troops (the rest of the unit following behind) if 4, 5, 6 is rolled on 1D6. However, the cavalry, being in good order and in a disciplined tactical withdrawal, will likely be prepared for such a reaction. Roll 1D6, with 4, 5, 6 allowing regulars and semi-regulars to about face at the last minute to engage the infantry in regular melee; and a 5, 6 allowing irregulars to about face. In such an instance, no charge bonuses are gained by either side. However, if the cavalry are caught in the rear, the infantry gain a charge bonus.

A pursuit will fall short, of course, if the cavalry were able to withdraw initially over a distance greater than the charge distance of the infantry. In such a case, the infantry are considered to be disorganized in the following turn, and the cavalry may launch a disorganized charge (1/2 charge bonuses) against the now regretful infantry caught out in the open with cavalry turning to gallop back down on them.

9.08 CAMELRY

Camelry are troops mounted on camels instead of horses, and these include LC, LMC, MC, and LMC equivalents. They can employ Light & Medium Cavalry Tactics to disengage from infantry and elephants, but not from horse-mounted cavalry and chariots able to pace them.

Camelry have several advantages. First, in arid regions they perform well over long marches and may outpace horse-mounted troops in

especially hot and dry conditions.

More important, camels have an effect on horse-mounted troops and chariotry quite similar to that of elephants. That is, any horse-mounted troops not in an army characteristically employing camelry will have a -1 on combat die rolls in charge/melee and morale tests when within 60 paces of the beasts. This simulates the nervousness of the horses at the strange smell and sight of the camels.

9.09 CHARIOTS

Like elephants, chariots are historically appropriate to Ancient armies and to fantasy campaigns.

HEAVY CHARIOTS

Lightly armored vehicles, each with a crew of 2 men: a driver and a fighter/archer. The crew can fight dismounted as LHI/HI close order infantry, the usual figure types in such units, with one figure per chariot. The chariots may have scythed wheels, giving +1 in initial charge/melee against infantry. They have a healthy charge bonus of +4 and a post-charge bonus of +1 on combat die rolls. All infantry melees against chariots -2 on combat die rolls and cannot charge against them unless they are standing or presenting flanks/rear.

LIGHT CHARIOTS

Unarmored, fast vehicles, usually comparable to Ancient Egyptian models, each with a crew of 2 men: a driver and a fighter/archer. The crew can fight dismounted as LI open order, LMI loose order, or MC close order infantry, with one figure per chariot. They have a charge bonus of +3 and a post-charge bonus of +1 on combat die rolls. All infantry melees against chariots -1 on combat die rolls and cannot charge against them unless they are standing or presenting flanks/rear.

All chariot units are somewhat unwieldy in maneuver and must wheel in formation to make a change in direction, a change of face not being possible otherwise. When operating against camelry and elephants suffer the same penalties as do other horse troops. They cannot enter woods or marshes, and slopes have the same effects on them as on other units.

In melee, chariots have a figure strength of the number of figures alive in the chariot miniature (20-man equivalent for each mounted figure, although 10 are actually represented). A chariot figure will be removed whenever both crewmen are killed, following much the same procedure as described for elephants.

In archery, each fighter/archer represents 1 foot archer equivalent. A chariot therefore figure therefore counts as 1 archer. The archer is the first to be lost in a chariot, so casualty effects will cause archery to

fall in strength first.

When a chariot unit breaks in morale and is forced back or routs, the troops react in a manner similar to elephants. In a fall back or rout they are not allowed a free formation change to fit through any gaps in troops behind them. In a fall back, the chariots can halt immediately before friendly troops and stand in a fall-back status (backs to enemy) for the rest of the turn. In the next turn they can turn 90° and move to the side, or the friendly unit can pass through the chariot unit. A rout is a far different situation:

Routed chariotry will ride down and trample any infantry in the way. The effect is the same as if the infantry received a full chariot charge.

Being more maneuverable, cavalry will be able to avoid the worst effect of a chariot rout but will be disorganized by any interpenetration.

If chariotry routs into another chariot unit, the second unit is treated as counter-charging the routed unit—effectively simulating the numerous collisions, etc., that inevitably result.

9.10 WAR ELEPHANTS

As a weapon, war elephants historically would be limited to a few Ancient armies and to Indian armies, but perhaps a somewhat greater latitude might be permitted in a fantasy campaign. These beasts—which include the Woolly Mammoths of a Hyborean Age campaign or the terrible Triceratopsians of the Hss'Taathi (see *Saurians*)—are utterly fearsome in frontal attack. Unfortunately, they are also prone to routing and trampling their own reserves.

War Elephants and their fantasy counterparts, the Woolly Mammoths, have a standard Class-C morale level. The more devastating Triceratopsians have a Class-B rating.

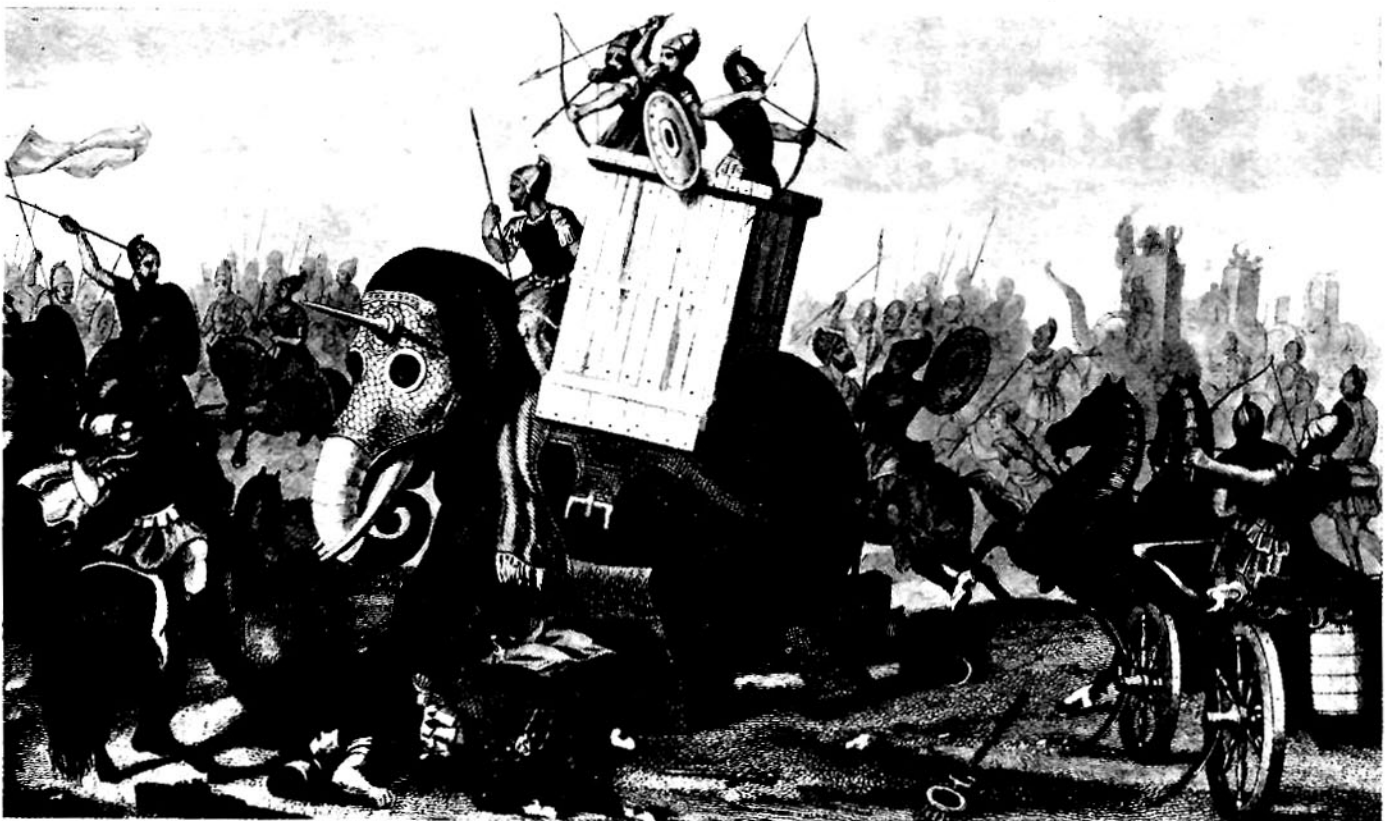
Each beast will have a crew of 4-5 men: 1 mahout; 2 archers; and 1-2 spearmen. Each figure represents about 10 animals plus their crews, who are represented by appropriate mounted figures.

In melee, each figure counts as 1 figure x no. of crewmen alive. The figure is removed when all crewmen are dead.

For archery purposes, each figure counts as 1 foot archer x no. of archer figures alive.

Casualties are inflicted on 1 crewman at a time (20-man equivalent, although only 10 men are really represented). Casualties are taken in the following order: (1) spearmen; (2) archers; (3) mahouts.

Such great beast cannot change face as a movement action. Any change of face must be accomplished as part of movement by wheeling the entire unit in the direction desired. Nor can they enter woods or marshes. Slopes affect them like any other units.



Cavalry suffer a -2 from combat die rolls in charge/melee and -1 in morale tests whenever they engage such beasts. Nor can they charge such animals, either! If the cavalry has not been trained to serve in an army regularly using elephants (or triceratops), a further -2 is deducted from their combat die rolls to simulate the nervousness of their mounts whenever within 60 paces of elephant/mammoth/triceratops units. This also applies to camelry and chariots. Despite these handicaps, cavalry can still inflict the usual minuses from the morale of these ultra-heavy units in pre-melee and post-melee morale tests.

Infantry also suffer a -2 from combat die rolls in charge/melee and morale tests whenever they engage elephant/mammoth/triceratops units. Nor can they charge them. For their part, the beasts cannot effect a breakthrough in melee against infantry more than 2 ranks deep—the animals slow down enough in the confusion to break the impetus of their charge.

When an elephant unit or its equivalent does break in morale, it is not allowed a free formation change to fit through any gaps in troops behind them. In similar fashion, it cannot interpenetrate friendly units. Rather, it will turn around, run mad, and trample everything in its path.

Should the beasts rout, each mahout is expected to kill his mount if so ordered. This is usually attempted after the first turn of rout, but only if there is serious danger to friendly troops in the path of the beasts, and the troops cannot reasonably get out of the way. (After all, such beasts are valuable, if temperamental). Roll 1D6, with a 1, 2, 3 indicating that the mahouts have disposed of their mounts.

In a rout, the elephants/mammoths/triceratops are treated as equivalent to heavy cavalry in that they can effect a breakthrough against any type of unit in their path. Nothing will easily stop such panicked monsters!

At the end of the first turn of a rout, the crews are reduced by 20% to reflect 'bail-outs', and the appropriate number of figures are removed.

Heroes and Commanders can serve with elephant/mammoth/triceratops units as with any other type of unit.

10.01 FORTRESSES

The following tables contain data abstracted from C&S on the type of fortifications that might be present in a castle or a walled town. A given fortress will have its overall strength assessed on the basis of these data:

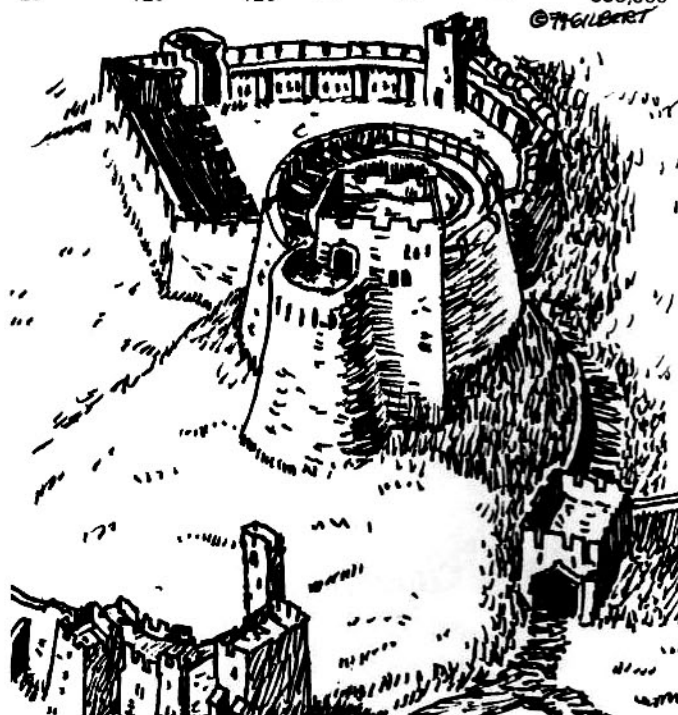
CURTAIN WALLS		FORTIFICATION STRENGTH			
Thickness	Height	Cheap Const.	Average Const.	Good Const.	Superb Const.
1'	10'	1500	1950	2400	2850
2'	10'	3000	3900	4800	5700
3'	10'	4500	5850	7200	8550
4'	10'	6000	7800	9600	11,400
3'	15'	5250	6825	8400	9975
4'	15'	7000	9100	11,200	13,300
5'	15'	8750	11,375	14,000	16,625
4'	18'	8400	9880	13,400	15,960
5'	18'	9500	12,350	15,200	18,050
6'	18'	12,600	14,820	18,240	23,940
5'	25'	11,250	14,625	18,000	21,375
6'	25'	13,500	17,550	21,600	25,650
7'	25'	15,750	20,475	25,200	29,925
6'	30'	15,000	19,500	24,000	28,500
7'	30'	17,500	22,750	28,000	33,250
8'	30'	20,000	26,000	32,000	38,000
7'	35'	19,250	25,025	30,800	36,575
8'	35'	22,000	28,600	35,200	41,800
9'	35'	24,750	33,475	39,600	47,025
9'	40'	27,000	35,100	43,200	51,300
10'	40'	30,000	39,000	48,000	57,000
10'	45'	—	42,250	52,000	61,750
11'	45'	—	46,475	57,200	67,925
10'	50'	—	45,550	56,000	66,500
11'	50'	—	50,050	61,600	71,350
12'	50'	—	54,600	67,200	79,800
12'	55'	—	—	72,000	85,500
15'	60'	—	—	96,000	114,000
15'	70'	—	—	108,000	128,250
18'	75'	—	—	136,800	162,450
18'	80'	—	—	—	171,000
20'	90'	—	—	—	209,000
20'	100'	—	—	—	228,000

ROUND TOWERS

			FORTIFICATION STRENGTH			
Thickness	Diameter	Height	Cheap Const.	Average Const.	Good Const.	Superb Const.
2'	8'	10'	4500	5400	6600	8000
4'	35'	35'	16,500	19,800	24,200	29,000
6'	40'	40'	27,000	32,400	39,600	47,400
8'	50'	50'	42,000	50,400	61,600	73,600
9'	50'	60'	—	64,800	79,200	96,400
10'	60'	60'	—	72,000	88,000	104,000
10'	60'	70'	—	81,000	99,000	117,000
12'	75'	75'	—	—	125,400	147,400
12'	75'	85'	—	—	138,600	164,000
15'	80'	90'	—	—	181,500	209,500
15'	90'	90'	—	—	—	209,500
18'	90'	100'	—	—	—	281,000
18'	90'	110'	—	—	—	304,200
18'	90'	120'	—	—	—	327,600
20'	100'	120'	—	—	—	366,000
20'	100'	130'	—	—	—	392,000
20'	110'	130'	—	—	—	392,000
20'	110'	140'	—	—	—	418,000
25'	120'	150'	—	—	—	551,900

SQUARE TOWERS

			FORTIFICATION STRENGTH			
Thickness	Diameter	Height	Cheap Const.	Average Const.	Good Const.	Superb Const.
2'	20'	30'	6000	7000	9000	10,500
3'	20'	30'	9000	10,500	13,500	15,750
4'	25'	30'	12,000	14,000	18,000	21,000
4'	25'	35'	13,200	15,400	19,800	23,100
4'	30'	35'	13,200	15,400	19,800	23,100
5'	35'	35'	16,500	19,250	24,750	28,875
6'	35'	40'	21,600	25,200	32,400	37,800
6'	40'	40'	21,600	25,200	32,400	37,800
7'	45'	45'	27,300	31,850	40,950	47,775
8'	50'	50'	33,600	39,200	50,400	58,880
9'	50'	55'	40,500	47,200	60,750	70,805
10'	60'	60'	—	56,000	72,000	84,000
12'	60'	60'	—	75,600	97,200	113,400
15'	70'	70'	—	94,500	121,500	141,750
15'	75'	75'	—	—	128,250	149,625
15'	75'	80'	—	—	—	157,500
18'	80'	80'	—	—	—	189,000
18'	80'	90'	—	—	—	207,900
18'	90'	90'	—	—	—	207,900
18'	90'	100'	—	—	—	226,800
18'	90'	110'	—	—	—	245,700
20'	100'	100'	—	—	—	252,000
20'	100'	120'	—	—	—	273,000
20'	125'	125'	—	—	—	336,000



The precise nature of the fortifications can be stated in terms of its components. Ideally, the entire fortress should be mapped out, with walls and towers appropriately labelled to identify their thickness, height, and strength for siege purposes.

10.02 GATES & PORTCULLUSES

As a general rule of thumb, any gates set into a wall or tower will be 1/2 the fortification strength of the wall, to a maximum of 25,000 points. To score a hit against such structures with artillery will require 1 or 2 rolled on 1D6 for each hour they are under fire. If a hit is scored, damage is computed for that hour's bombardment as outlined for siege engines and artillery.

10.03 STORMING THE BATTLEMENTS

A heavily fortified castle or town was rarely easy to take by general assault. The attacker could expect heavy casualties. However, when time is of the essence or when there is a reason to believe that the defense would be weaker than might normally be the case, direct assault could be a quick way to victory. Walls 40' high or more are immune to storming.

The assault is conducted as follows:

(1) The attack is treated as a miniatures battle. The outlines of the fortification might be chalked or otherwise marked on the gaming table. Then the troops can be deployed.

(2) The defender deploys his forces along the wall. Troops may be in a frontal (active combatant) and a reserve line.

(3) The attacker deploys his forces along the base of the wall. Troops may consist of a frontal (active combatant) assault line and up to 3 reserve lines.

(4) The assault is by scaling ladder and grappling lines. Only one line of attackers can fight one line of defenders at a time. At the end of a round of combat, gaps in the front lines of both sides can be filled from the reserves.

(5) The defenders inflict standard casualties plus 10% per 5' of wall assaulted, to a maximum of 150% standard casualties. The attackers inflict standard casualties minus 10% per 5' of wall assaulted, to a minimum of 50% standard casualties. All attacker casualties are considered dead, but only 50% of defender casualties are considered dead—with the remainder returned to duty at the conclusion of the assault.

(6) After 30 rounds of battle, the attacker compares the number of troops he has remaining to the number of defenders along the same section of wall. If there are any gaps in the front line of the defenders and no reserves are left in the second line to fill them, the gaps may be filled by assaulting troops if 1, 2, or 3 is rolled on 1D6. This represents troops who have gained the battlements.

(7) The battle can be resumed on the fourth round, with the attacking troops able to fill gaps in their ranks on the wall with troops in reserve at the foot of the wall upon rolling 1, 2, or 3 on 1D6. If an attacking unit on the wall is eliminated and the 1D6 replacement roll fails, that 'bridgehead' is lost.

(8) Small unit action will often occur, with literally figure fighting figure at times. In such instances, casualties are measured in terms of men fighting, and figures are eliminated when 20 men are lost (or multiples of 20 men when the figures have greater strengths in figure equivalents). Player Characters in role playing campaigns can be deployed individually and C&S single combat systems can be used for such battles if desired.

(9) The assault will end if the attackers break in morale, and all attackers in an affected unit will retire, including those who have gained the wall. Defenders will not rout, but if they do 'break', 10% of the troops in the unit will temporarily withdraw per turn the demoralization lasts if 08-12 is rolled on 2D6. The assault may also be called off at any time by the attacker, especially if casualties are too high.

10.04 DROP THE ROCK

Peasants are clearly at the bottom of the medieval totem pole. For the most part, they do as they are told, without any unnecessary back-talk or comment (within earshot of their social 'betters'). They are good sports about the whole thing, for they all know there comes a time in the lives of all good peasants when they can give back significantly more than they have received. This occurs during that ever popular outdoor sport known as 'Drop the Rock'. This game is played whenever a group of the boys from the neighboring manor chances to call for a sociable month or two with their siege train.

Peasants are very proficient at Drop the Rock. They practice by digging stones out of their fields, laboriously carrying them in their arms up to the castle, and depositing them in strategic locations along the walls. Now and then, they are allowed to hurl a few miniboulders from the battlements just to hear the satisfying splat of the rock burying itself in the mud at the edge of the moat, foreshadowing even more fun later on.

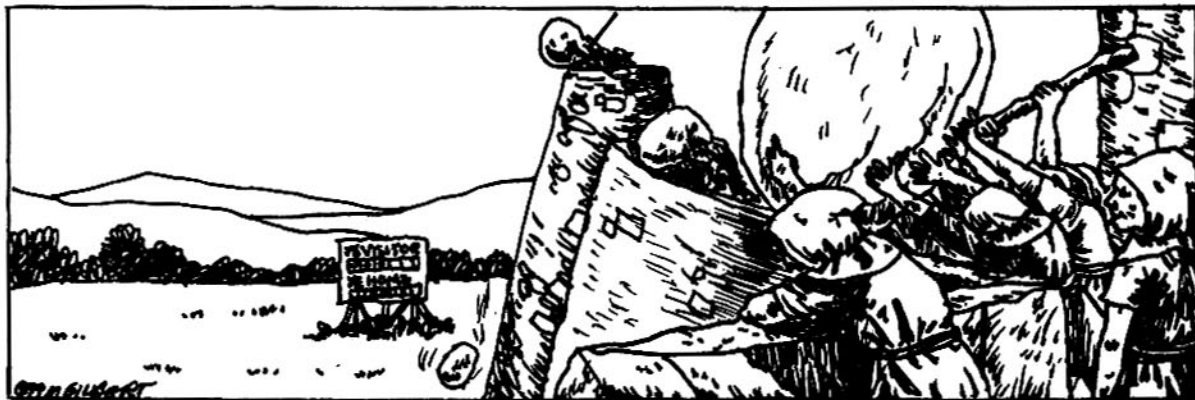
Finally, the awaited Field Day arrives. There are mass archery contests, javelin throwing competitions, and moat-filling events (which are held simultaneously with the previous two, the object being to fill the ditch with faggots of wood while the opposing contestants on the walls attempt to impede the visiting team with an assortment of arrows, crossbow bolts, throwing axes, javelins, and chamberpots, all done in a friendly mood of camaraderie punctuated by jocular witticisms concerning the family histories and personal habits of the contestants. Back in the woods, some of the visitors are engaged in a frantic game of Build the Ladder, each team vying with its neighbors to put their ladder together first so that they can lead the next event, Storm the Battlements, a contest of strength, skill, and plain guts that is beloved by all except the losers. Then a trumpet is blown and, with a thunderous 'Urrahl!' the visiting team swarms down toward the castle, trampling the faggots and fallen comrades into the mud of the moat, casting their ladders upward against the walls, and hurling themselves up those same ladders with an aplomb that brings gasps of delighted appreciation from the lips of the grinning onlookers above.

Now is the moment when all that training, those innumerable hours of rock-digging and stone carrying, comes to fruition. Giles or Jules or Karl or Luigi (this is an international sport, after all) steps toward the battlements, 50-pound boulder cradled in his strong peasant arms. He aligns himself precisely between the upright poles of the siege ladder which he can see rising before him. Easing the boulder onto the parapet, he peeks over the edge to gaze steadily into the upturned, exceedingly pale face of the leading climber below, tenses his great muscles and, with an ease born out of long practice, topples the rock over the parapet to slide down the length of the ladder, sweeping the visiting contestants from it amid agonized screams of frustration and outright pain. Occasionally, a most satisfactory splat is heard, reminiscent of all those practice sessions, as a particularly well-directed boulder plummets squarely onto the head of one of the climbers. Chortling gleefully, Giles (or Jules or Karl or Luigi) yields up his place to a man-at-arms and retires back to the pile of rocks heaped nearby to prepare for the next round of play. Meanwhile, the visitors are pulling their team mates from the mud or are carrying them away on one or two stretchers. (Really gung-ho teams tend to elect for the optional tactic of stomping fallen team members into the mud and faggots to improve the footing).

Indeed, this sport is too much fun for the home team to ignore! To simulate Drop the Rock, we recommend the following simple rules:

ROCK COLLECTING

While no points are awarded for this event, Rock Collecting is definitely vital to the success of one's Field Day. The number of boulders placed along the walls should be determined prior to the start of the siege. Typically, there will be one boulder for each defender (figure)



plus 1-100%. If there is time to gather rocks before the enemy arrive, 1-3 additional rocks may be gathered per peasant raised.

EVENT NO. 1: LADDER CLEARING

When ladder clearing, men on the ladder and then men grouped around the base of the ladder are targets. Roll a 6-sided die:

Die Roll	Effect
1	One man is a casualty.
2	Two men are casualties.
3	Three men are casualties.
4	Three men are casualties and there is a 3/6 chance of toppling the ladder.
5	Four men are casualties and there is a 4/6 chance of toppling the ladder.
6	Five men are casualties and there is a 5/6 chance of toppling the ladder.

Toppled ladders have a 1/6 chance of breaking for every 5' of length over 10'.

Casualties have a 3/6 chance of being killed outright. Otherwise, they are wounded.

EVENT NO. 2: SKULL BASHING AND BONE BREAKING

Intended victims must be within 10' of the wall. If the wall is sloped outward at the base to cause falling rocks to ricochet into besiegers, increase the range by 1" per 10' of wall height. If the range of a ricocheting rock will carry it into a second rank of figures, roll an extra die, with no modifications to the second result. Roll a 6-sided die:

Die Roll	Effect
0	Miss!
1	One man is a casualty.
2-3	Two men are casualties.
4	Three men are casualties.
5	Four men are casualties.
6	Five men are casualties.

Die Modifiers:

Open order infantry target	-2
Standard order infantry target	-
Close order infantry target	+1
Cavalry target	+1
Ricocheting rock	+1

Casualties have a 3/6 chance of being killed outright. Otherwise, they are wounded. In the case of cavalry, there is a 3/6 chance of hitting and killing the horse instead of the man per 'man' suffering injury or death. In large-scale actions, keep track of the casualties and eliminate 1 figure from the attack per 20 individual casualties.

EVENT NO. 3: BRINGING THE ROOF DOWN

When a cat or mantlet is moved up to the wall to cover a battering ram or infantry massing for an assault, rocks may be dropped to smash the defenses. Falling rocks will do 2 impact points of damage for each 1' of height from which they are hurled. Double the amount of damage for heights between 40' and 60', and triple the damage for heights over 60'.

If a rock breaks through a cat or mantlet, check for casualties as if a Skull Bashing/Bone Breaking attack had been made. If the wall is sloped to ricochet dropped rocks, there is a 1/6 chance that the rock will enter the front of a cat and Bash Skulls or Break Bones of the men inside. Otherwise, the stone will strike the cat.

Casualties from 'drop the rock' activities are assessed prior to any turn of melee during a storming action. They cannot be conducted once the wall has been gained.

10.05 MISSILE FIRE DURING STORMING ACTIONS

The attacker may fire missiles at the defenders only in the initial turn of a storming action, after which fire ceases because it would have to be taken into a melee. Defenders may fire missiles into the attacker's reserves provided that the missile troops are not engaged in melee or rock dropping. Usually, defending missile troops will be placed in towers or in firing galleries.

Defenders suffer casualties from missile fire as outlined for their melee casualties when defending from attack from below. They must be exposed to enemy view at the battlements to be eligible.

10.06 SEIGE ENGINES & ARTILLERY

There are three types of pre-gunpowder siege engines capable of smashing walls with hurled missiles:

ONAGER

A catapult hurling stones up to 100 dr. (lbs.) which can be built in about 10 days by a blacksmith, carpenter, and 8 assistants and which is usually mounted on a wheeled platform.

MANGRONEL

A catapult hurling stones of 100-200 dr. (lbs.) which can be built in about 15 days by 2 blacksmiths, 2 carpenters, and 16 men, and which is sometimes mounted on a wheeled platform.

TREBUCHET

A very heavy siege engine able to hurl from 200-1000 dr. (lbs.) of stones. It is essentially a fixed weapon but may be 'inched' forward on rollers, usually requiring a day or more to be sited close to its target if built out of missile range of the defenders. A trebuchet can be built in 20-30 days by an armorer, 2 blacksmiths, 2 carpenters, and 25 men.

Early cannon fall into two categories:

LIGHT BOMBARD

A cannon of welded iron bars which is sledge-mounted and able to hurl solid shot weighing up to 50 dr. (lbs.).

HEAVY BOMBARD

A cannon of welded iron bars which is sledge-mounted and able to hurl solid shot weighing up to 200 dr. (lbs.).

Renaissance cannon fall into three categories:

LIGHT FIELD GUN

A cast cannon mounted on field carriage and firing 4 to 8-pound shot. Such weapons are not overly effective against strong fortifications.

MEDIUM GUN

A cast cannon mounted on field carriage and firing 12 to 24-pound shot. Such weapons are designed as battering pieces and, because of their rate of fire, are equivalent to heavy bombards in long-term siege bombardment operations.

HEAVY SEIGE GUN

A powerful battering piece firing shot up to 64 pounds and often very effective against even the strongest fortifications.

Impact damage against fortifications is a function of the weight of shot, the range, the rate of fire, and the power of the weapon. The following table gives the impact damage points which may be inflicted against the fortification strength value per hour of bombardment:

Siege Weapon	Range To Target (In Paces)						
	50	100	200	300	400	500	700
50 dr. Onager . . .	.100	90	80	65	50	25	—
100 dr. Onager . .	.225	215	200	175	150	125	—
100 dr. Mangronel	.250	225	215	200	175	150	100
150 dr. Mangronel	.400	360	345	320	280	240	160
200 dr. Mangronel	.625	575	535	500	435	375	250
200 dr. Trebuchet	.700	650	600	560	490	420	280
300 dr. Trebuchet	.1075	1000	930	870	760	650	430
500 dr. Trebuchet	.1850	1700	1575	1475	1275	1075	700
25 dr. Bombard . .	.250	225	215	200	175	150	100
50 dr. Bombard . .	.500	450	430	400	350	300	200
75 dr. Bombard . .	.750	675	645	600	525	450	300
100 dr. Bombard . .	1.000	900	860	800	700	600	400
125 dr. Bombard . .	1.250	1125	1075	1000	875	725	500
150 dr. Bombard . .	1.500	1350	1300	1200	1050	900	600
200 dr. Bombard . .	2.000	1825	1750	1625	1425	1225	825
4-pdr. Field Gun . .	.75	70	65	60	50	40	20
12-pdr. Mdm. Gun	.250	235	220	200	180	160	120
18-pdr. Mdm. Gun	.400	375	350	325	290	260	190
24-pdr. Mdm. Gun	.650	600	560	525	465	420	300
36-pdr. Hv. Gun . .	1.150	1050	980	920	820	735	525
48-pdr. Hv. Gun . .	1.725	1575	1475	1375	1225	1100	790
64-pdr. Hv. Gun . .	2.600	2375	2225	2075	1850	1650	1175

The amount of damage that can be done by a battery of siege engines, bombards, or guns is a function of the number of hours of bom-

bombardment per day, the class of the artillerists, and the degree of accuracy factor. The base value is found by considering the range of the battery from the target given in the previous table. This damage value is modified by the following factors:

Onager	.x4 hrs.
Mangonel	.x4 hrs.
Trebuchet	.x4 hrs.
Light Bombard	.x4 hrs.
Heavy Bombard	.x4 hrs.
Light Field Gun	.x6 hrs.
Medium Gun	.x6 hrs.
Heavy Gun	.x6 hrs.
Artillerist Class A	.x5 hrs.
Artillerist Class B	.x3 hrs.
Artillerist Class C	.x2 hrs.
Degree of Accuracy	x10.D6% (average of 5D6 rolls)
Class A Artillerists	+40%
Class B Artillerists	+20%

For example, a battery of 200 dr. Mangronels are firing at a 30' curtain wall 8' thick and of superb construction, with a total of 28,000 strength points. The range is 175m, which places the battery in the 200m column. The base damage value of the battery is 535 points per hour. The artillerists are Class B.

The number of hours of bombardment possible per day = 4 hours plus 3 hours for Class B artillerists or a total of 7 hours. The degree of accuracy is found by rolling 5x D6, with 1, 3, 3, 4, 6 rolled to average 3.4/10 = 34%. The class B artillerists add 20% for an accuracy factor of 54% or 0.54.

To find the damage done per day, multiply the base damage done per hour x hours of bombardment per day x accuracy factor percentage.

In our example, the battery will do 535 pts. x 7 x 0.54 = 2022 damage points per day. The wall will be breached in 13.8 days.

The amount of damage done can be computed on a weekly basis when a major fortification is under bombardment, requiring a long period of reduction. This provides a variable amount of damage over the course of the siege and a greater element of unpredictability. Each battery will compute its damage separately from other batteries, even if of the same type and crewed by the same class of artillerist.

A breach is opened which is 10' x 10' when the wall's damage capacity is exceeded by the bombardment. This breach is variable and may be wider. Roll 5D6. Any result over 10 adds that amount of feet to the breach. For instance, a 23 result opens a breach 23' x 23'. If the height of the breach exceeds the height of the wall, the excess is added to the width of the breach.

For example, a 20' wall is breached. The 5D6 roll is 27. This is 7' over the height, so the width of the breach is 27' + 7' = 34'.

Several adjacent sections of wall may be bombarded simultaneously to produce a wide breach.

If a tower has more than 25% of its circumference 'breached', there is a 50% chance that it will collapse entirely.

10.07 MINING OPERATIONS

Perhaps one of the most effective, if also the slowest, ways of breaching a fortification is by mining. The operation involves driving a tunnel under the wall and then undermining it with a large chamber shored up with timbers. Once the chamber has been completed, the timbers are coated with pitch and other combustibles. Kegs of naphtha, Greek fire, and even gunpowder might also be placed to form an explosive mine to increase the damage. Once all is ready, the timbers are fired or the mine is exploded, the ceiling of the chamber collapses, and hopefully the wall is cast down.

The following table presents how much material a 50-man mining crew can remove in a single 8-hour shift.

Subsurface	Material Removed (FT ³)			Chance of Chance	
	Miners	Troops	Dwarves	Goblins	Cave-In Detected
Hard Rock	.75	50	100	75	10%/01% 25%
Average Rock	.150	100	200	150	15%/01% 25%
Soft Rock	.225	150	300	225	20%/01% 25%
Rocky Soil	.375	250	500	375	25%/05% 20%
Clay	.750	500	1000	750	25%/05% 20%
Soil	.1125	750	1500	1125	35%/05% 15%
Sand	.375	250	500	375	40%/05% 15%
Marsh	.225	150	300	225	50%/10% 10%
Under Moat	.150	100	200	150	50%/10% 25%

The cave-in chances apply per shift. The first percentage is the chance of a cave-in if no shoring is attempted; the second is the chance of a cave-in if shoring is used. Shoring halves the rate at which a tunnel can be driven. If in a marshy area or under a moat, lake, etc., the cave-in brings an equal chance of flooding.

It is not normally possible to mine below the water table without using expensive stone shoring and tunnel linings. This factor is represented by very high cave-in/flooding chances if a tunnel is driven without shoring. Such shoring reduces the mining rate to one-quarter.

The chance of the tunneling being detected begins when the head of the tunnel is 100 feet from the defenders. Detection reveals the presence of the tunnelers and also the approximate position of the miners. The defenders may attempt to countermine and cut into the tunnel to assault the miners and perhaps destroy the works. Many castles will also have secret countermines already dug, as well as water traps which the enemy might cut into in the course of tunneling.

If the tunnel reaches the defenses, the works will be extended into a chamber undermining the section of wall to be brought down. The chamber must be wider than the wall's thickness by 25% and a minimum of half its height or 25', whichever is less. Chambers more than 10' high must be shored up.

The mine will be 'exploded' by setting off incendiary material or gunpowder charges. If the mine has been placed correctly, the full effects will likely bring down the wall. If not placed well, the effects will be reduced accordingly. Roll 3D6:

3D6 Roll	Mining Result
03-09	100% damage
10-12	75% damage
13-14	50% damage
15-16	25% damage
17-18	10% damage

The damage inflicted will depend upon the incendiary/explosive materials used and the amount in the mine, as well as upon a proper undermining chamber. The undermining itself will cause 25% damage to the wall, plus 2% per foot the chamber's height exceeds 1/2 the wall's height. A 25' chamber will cause 50% damage to any wall if it caves in properly. To the damage points gained from mining may be added:

Incendiary/ Explosive	Damage Points	Cost/ Keg
Pitch	.500	15 SP
Oil	.600	25 SP
Turpentine	.700	50 SP
Naptha	.900	60 SP
Alcohol	.1000	60 SP
Greek Fire	.1500	100 SP
Gunpowder	.2000	100 SP

A keg is about 10 gallons or 50 dr. (lbs.) capacity.
The cost of other items of mining equipment are:

Mining Equipment

Pick	20 SP
Light Hammer	15 SP
Rock Drill	20 SP
Sledge Hammer	20 SP
Shovel	15 SP
Saw	40 SP
Axe	15 SP
Spikes (12)	2 SP
Shoring Timber	5 SP*
Waterproof Shoring	10 SP*

*Per linear foot of tunnel. Waterproof shoring is masonry.

10.08 RAMS & PENTHOUSES

Walls may be battered by rams built from a large tree trunk and likely armored with a bronze or iron head. Large rams will be carried in penthouses or 'sows' on wheels, which are armored with heavy timbers, raw hides, and even metal for overhead and side protection from missiles and incendiaries.

Ram	Weight	Crew	Damage/Hour
Small	.300-600 dr.	10	250
Large	.1000+ dr.	20	750
Very Large	.3000+ dr.	40	1500

The amount of damage inflicted per day depends upon the hours of operation. Roll 4D6 per day to find the effective number of hours battering takes place. Each 4 hours requires replacement of the crew with a fresh one (common troops). A crew may be rotated back every 8 hours.

When battering a gate, the strength of the gate is equal to 1/2 the strength of the wall/tower it is set into, to a maximum of 25,000 fortification points.

The defensive strength of a penthouse is directly related to its size and the materials comprising it. A penthouse corresponds to battering-ram crews for capacity:

Penthouse	Damage Cap.	Cost
Standard Small Penthouse	.5000	750 SP
Fireproofed Small Penthouse	.5000*	1250 SP
Standard Large Penthouse	.7500	1125 SP
Fireproofed Large Penthouse	.7500*	1875 SP
Standard V. Lge. Penthouse	.10,000	1500 SP
Fireproofed V. Lge. Penthouse	.10,000*	2500 SP

*Fireproofing reduces fire damage to 10%.

A penthouse or sow is a long shed on wheels and can be used to not only house a battering ram but also as the fortified entrance to a mine or as a covered way close to the walls. Damage from war engines is halved against such works, while guns do full damage. They must be 'ranged' with a 1 or 2 on 1D6 for hits to be scored in any given hour.

10.07 MANTLETS & SEIGE WORKS

Attackers can fashion mantlets, trench works, and other field fortifications to protect besieging troops from enemy missile fire. Such defenses all provide protection such that missile casualties are reduced to 75% behind mantlets and 50% behind stouter defenses. They must be exposed to enemy view at the battlements to be eligible.

Seige works may also be developed which have 500 fortification strength points per 10' (linear distance). Such works would consist either of trenches or parapets and palisades (6' above ground level plus a 3-4' palisade). Each 10' section costs 10 GP to construct and requires 10 men working for 2 hours cutting down timber and digging a parapet.

10.10 MOATS & DITCHES

Before a moat or ditch can be crossed by attacking troops, it must first be filled. The volume that can be filled is 10'x10'x5' per hour for 20 men carrying up earth and bundles of sticks. The fill will be strong enough to support penthouses and seige towers. If a current is running in the moat (connected to a stream), the time required is doubled or more, depending upon the strength of the current and the width of the moat.

10.11 SEIGE TOWERS

The seige tower is a wheeled engine of war which completely counter the effects of fortifications in storming actions. The tower will be built of the best hardwoods and covered with raw hides or iron plates to minimize the hazard of fire (15% chance of igniting when hit by incendiaries). Costs of construction are high, about 5 GP per foot of height to 40', and double that cost per foot above 40'. Towers may have drawbridges up to 20' long, across which troops may charge to sweep defenders from the walls. The frontage is 1 figure and gives troops on a drawbridge equivalence to defenders on the walls. Archers may also be located higher in the tower and can rain down fire on defenders lower than they to drive them off the section of wall to be attacked.

A seige tower will have 1000 fortification points plus 50 points per foot of height over 40'. To be hit by enemy seige engines and guns requires a 1 or 2 on 1D6, representing hits scored in a given hour.

The tower can be grappled by the defenders rolling 1 or 2 on 1D6 when it comes within 25' of the walls. There is then a chance on 1 or 2 on 1D6 that the defenders can topple the tower. Only one attempt can be made per day.

When crossing a moat, there is a chance on 1 on 1D6 that a tower will topple because of the uneven nature of the fill and the log corduroy overlying it.

10.12 INCENDIARIES & EXPLOSIVES

Fire can be used as a weapon, either when placed in kegs against a position to be burned or when fired from catapults.

When a fire missile hits a target, there is a chance on 1, 2 or 3 on 1D6 that it will start a fire, in addition to ignition damage effects. Hides soaked in vinegar and stonework reduce this chance to 1 on 1D6.

A keg is about 10 gallons or 50 dr. (lbs.) capacity. The initial ignition and burning effects apply only if placed by hand. Otherwise, only

10% of the effects apply, and artillery will have to fire 10 kegs in an hour's firing to obtain equivalent effects. All incendiary materials are in relatively scarce supply, and Players should reach agreement on the availability of such items when there is a high demand.

Type of Incendiary	Cost/ Keg	Initial Ignition	Burning Effects
Solid Fire (Missile)	.10 SP	200 pts.	100 pts. x 1D6
Pitch	.15 SP	500 pts.	100 pts. x 1D6
Oil	.25 SP	600 pts.	125 pts. x 1D6
Turpentine	.50 SP	700 pts.	125 pts. x 1D6
Naptha	.60 SP	900 pts.	150 pts. x 1D6
Alcohol	.60 SP	1000 pts.	150 pts. x 1D6
Greek Fire	.100 SP	1500 pts.	200 pts. x 1D6
Gunpowder	.100 SP	2000 pts.	200 pts. x 1D6

11.01 VICTORY & DEFEAT

The victor in a battle was usually the one who remained in possession of the battlefield, having routed or driven off the opposing army. Once the total number of casualties suffered has been determined at the conclusion of a battle, consult the tables below to find the percentage of the totals lost in each category. The upper line is used if the field is held/contested. The lower line is used if the field has been lost.

Troop Category	Dead	Wounded	Fit	Invalid	Pow
Chivalry/Reg. Cavalry	25%	25%	45%	05%	—
	25%	20%	25%	05%	25%
All Other Cavalry	30%	30%	30%	10%	—
	40%	20%	20%	—	20%
All Infantry	30%	30%	20%	20%	—
	50%	20%	—	—	30%

Key

Dead = troops killed in action or died soon after from wounds.

Wounded = troops fit for duty in 2 weeks. In emergencies, they can be used, but only 25% can be fielded.

Fit = troops who survived with minor wounds and can be returned to duty next day.

Invalid = troops unfit for fighting for 1-3 months (normally sent home).

POW = Prisoners of war captured by the enemy.

Note that defenders of a fortified position are always considered as being on a contested field, as are the besiegers, until the fortress is taken or the besiegers withdraw. Victory occurs only if the fortress is taken or a relieving army appears and drives off the besiegers.

To illustrate, suppose that an army has won the field and has suffered 16 Chivalry figure casualties, 20 Other Cavalry figure casualties, and 36 Infantry figure casualties. The breakdown would be:

Troop Category	Dead	Wounded	Fit	Invalid	Pow
Chivalry	.4 fig.	4 fig.	7 fig.	1 fig.	—
Other Cavalry	.6 fig.	6 fig.	7 fig.	2 fig.	—
Infantry	.11 fig.	11 fig.	7 fig.	7 fig.	—

Had the same army lost, the breakdown would be:

Troop Category	Dead	Wounded	Fit	Invalid	Pow
Chivalry	.4 fig.	3 fig.	4 fig.	1 fig.	4 fig.
Other Cavalry	.8 fig.	4 fig.	4 fig.	—	4 fig.
Infantry	.18 fig.	7 fig.	—	—	11 fig.

Mere possession of the battlefield may not be the only consideration affecting the determination of victor and vanquished. It may well happen that a smaller force has inflicted proportionate casualties on a larger, much more powerful force. Though the smaller army may well withdraw from the field at the conclusion of the battle, it has not been 'defeated' in the proper sense of the word if it remains a force-in-being able to take to the field tomorrow. Further, a powerful force that has suffered significant levels of casualties might, under such conditions, be said to have won a 'Pyrrhic victory' which actually amounts to a draw. The same may be said in the case of an army winning the field, but at the cost of excessive casualties amongst its best troops; while the 'loser' has lost significantly fewer troops of equivalent value. Thus, whenever there is serious doubt, treat the battle as a draw and use the casualty breakdown figures for a contested field for both sides. However, the side in possession of the field can loot the loser's dead for armor, etc., which would be found on the battlefield and could be easily recovered.

The CHIVALRY & SORCERY SOURCEBOOK contains expanded rules for the C&S rules system. Included in this volume are sections on:

Designing Outdoors Adventures. This section covers mapping a world, weather, movement over distances, and detailed encounter tables for varying locales and situations.

C&S Monsters, covering rules of creation and motivation.

Physicians, Wounds, and Diseases. This section covers new PC types and their role in dealing with plague, disease and wounds in game terms.

Feudal Economics, dealing with trade, mining and agriculture in detail.

The revised version of the award winning C&S Battle Systems which cover miniatures battles, sieges, mobilization, and full military campaigns.

The C&S SOURCEBOOK provides well thought out rules additions for Gamemasters and Players alike.