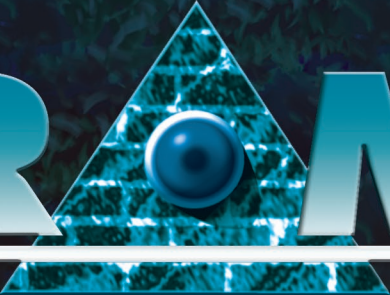


# PYRAMID



Issue 3/77 March '15

# COMBAT



## COMBAT WRIT LARGE

by Sean Punch

**LOW-TECH ARMOR LOADOUTS  
FOR THE NEW WORLD**  
by Dan Howard

**ANCIENT EGYPTIAN  
AND ROMAN ARMIES**  
by David L. Pulver

**ON TARGET**  
by Douglas H. Cole

**IT'S A THREAT!**  
by Christopher R. Rice

**STEVE JACKSON GAMES**

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# IN THIS ISSUE

For many games, combat is somewhere around Plan A, Plan B, or . . . well, the only plan. Fortunately, this issue of *Pyramid* is here to help you rally the troops, hone your aim, and get into battle. Whatever era or genre you play in, there's something sure to be of interest here.

When you're facing an ogre, killer robot, or alien face-worms, you're ready for *Combat Writ Large*. **GURPS** giant Sean Punch collects, unifies, and expands the rules for fighting larger things. The effects of size on attack, defense, grappling, and more are all here in one place – along with a few new rules to cover edge cases! (And remember that when you fight smaller things, *you* are the “giant” . . .)

If you like historical accuracy and ready-to-use equipment, you'll love *Low-Tech Armor Loadouts for the New World*. Dan Howard – author of **GURPS Loadouts: Low-Tech Armor** – offers some insight into the hard work that went into forging that supplement, as well as seven new sets of armor loadouts for Spanish conquistadors, Aztec war leaders, Shoshone warriors, and more.

Perhaps conflicts a bit larger than a melee skirmish are on your mind. If so, get ready to go to battle with *Ancient Egyptian and Roman Armies*. These two armies for **GURPS Mass Combat** are presented by that supplement's author, David L. Pulver, in this month's Eidetic Memory offering. Pit these two armies against each other, or use either one in your own massive conflicts!

For more possibilities for the Aim maneuver in **GURPS**, we have some optional rules that are *On Target*. Crafted by Douglas H. Cole (scribe of **GURPS Martial Arts: Technical Grappling**), these rules will let you use an All-Out Aim, learn the Quick Aim technique, or experience critical successes and critical failures like never before.

Are you trying to craft effective dangers for **GURPS Dungeon Fantasy** heroes? Now you can make sure *It's a Threat!* Prolific *Pyramid* penman Christopher R. Rice codifies how threatening all **Dungeon Fantasy** monsters are (up through *Pyramid* #376: *Dungeon Fantasy IV*) by describing each one's Offensive Rating, Protective Rating, and Combat Effectiveness Rating . . . and providing the rules to calculate your own!

This month's *Pyramid* also features a Random Thought Table for those who want to fight faster, plus Odds and Ends that encourage you to take a breath and enjoy a new *Murphy's Rules* that's given its best shots. Unleash your combative nature with this issue of *Pyramid!*

## ARTICLE COLORS

Each article is color-coded to help you find your favorite sections.

- Pale Blue:* In This Issue
- Brown:* In Every Issue (humor, editorial, etc.)
- Green:* Columnist
- Dark Blue:* **GURPS** Features
- Purple:* Systemless Features

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# FROM THE EDITOR

## RATS? RATS!

My favorite combat ever as a player was one I didn't even participate in.

It was a fantasy game at a convention. We'd progressed through the dungeon crawl without much incident, and the players (who didn't know each other beforehand) were getting along well.

In one room, I decided to take up guard duty outside while the rest of the heroes investigated inside. (It made sense in character.) Once inside, the heroes were attacked by rats. Thinking it was no big deal, the PCs attacked and were counterattacked by the rodents. The rats inflicted heavy damage on the heroes, while the heroes were having a hard time dispatching the vermin.

Guarding outside – hearing the turmoil both in and out of character – I ask, “How big are these rats, anyway?”

The GM says, “Oh, they're normal-sized rats,” and holds out two hands about 3' apart.

We all start exclaiming about how “normal sized” these 3' rats were, and understanding more clearly why they were

mopping the floor with us. I (in character) expressed relief that I was safe outside bravely guarding the others' backs.

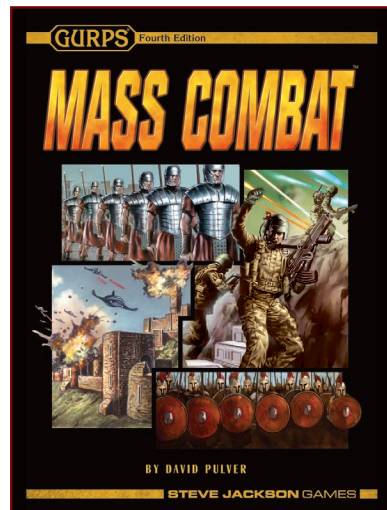
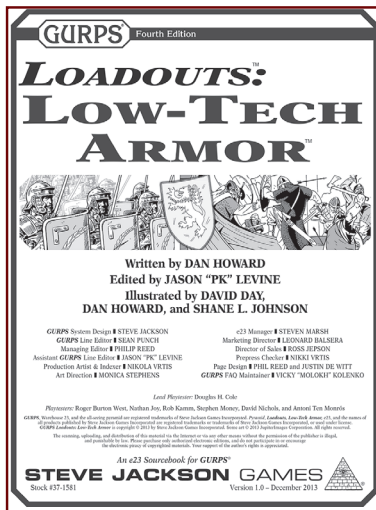
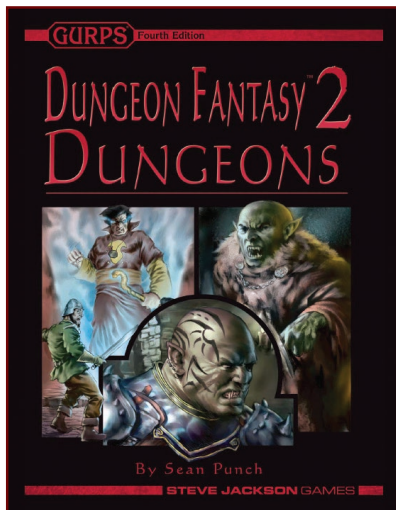
We eventually dispatched the rats (my cowardly self is using the royal “we” there) and healed up, all the while laughing and reveling in how we hadn't noticed that these “normal-sized rats” were larger than trained attack dogs.

It was an amazingly fun, lively combat, and certainly one that doesn't just stick in my mind solely because the GM – who I'd only met at that convention for the first time – ended up becoming my wife.

Regardless of the exact mayhem, mishaps, and merriment, we hope that you have beloved melee memories of your own . . . and we especially hope that this *Pyramid* continues to be a wonderful part of your own gaming memories.

## WRITE HERE, WRITE NOW

Your comments help us improve our publication. How are you using this material in your campaign? What do you wish we'd write about? Let us know via private feedback at [pyramid@sjgames.com](mailto:pyramid@sjgames.com), or join the public discussion online at [forums.sjgames.com](http://forums.sjgames.com).



*Special Thanks:* Douglas H. Cole and Christopher R. Rice

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# COMBAT WRIT LARGE

BY SEAN PUNCH

A recurring theme in dungeon crawls, off-world bug-hunts, and monster horror – not to mention *GURPS Q&A* – is combat between human-sized heroes and larger creatures. The *GURPS Basic Set* and its supplements offer many scattered rules for this. Now it's time to unify those and fill the gaps.

These rules often use “monster” to refer to the fighter with the higher Size Modifier (SM). Remember that when adventurers fight smaller creatures, *they* are the monsters!

## SIZE REFINED

Size Modifier is important but not the whole story. Height and width, area occupied, and reach also matter. These dimensions depend on not only SM but also morphology – particularly on whether the figure has Horizontal (p. B139) or No Legs (p. B145).

### Size in Hexes

Per *Multi-Hex Figures* (p. B392), practically all SM +1 and larger creatures fill more than one hex. Hex count isn't a strict function of SM – a towering giant could have a modest “footprint,” while an impossibly flat slime might engulf acres. For a quick-and-dirty estimate, however, consult the “Longest Dimension” column of the *Size Modifier Table* (p. B19), read “yards” as “hexes,” round down (but never to less than one hex!), and then follow these guidelines:

- A sleek (horse-like) or snaky (dragon-like) Horizontal figure uses *full SM* to work out length in hexes, but is a mere one hex wide – though it might bulge an extra hex or two near the limbs.
- A boxy Horizontal figure (boar, elephant, muscular predator, etc.) uses *one SM smaller* to determine length in hexes and *two SM smaller* to find width in hexes.
- An upright being (like a giant) has a footprint found by using *three SM smaller* for front-to-back thickness in hexes and *two SM smaller* for side-to-side width.

Semi-Upright (p. B153) figures fight as if upright, but the GM may treat them as boxy when they drop to run. The question of sleek vs. boxy for Horizontal creatures is entirely a feature. Sleek monsters are more likely to shove smaller figures when turning (*Didn't See You There*, p. 6) while boxy ones are harder to dodge in head-on slams (*Defense vs. Slams*, p. 9).

The *SM-to-Hexes Table* (below) summarizes the ranges these rules imply for SM 0 (human size) to +6 (10 times human size).

### SM-to-Hexes Table

Sizes in hexes are ordered (hexes front-to-back) × (hexes side-to-side).

SM	Sleek	Boxy	Upright
0	2 × 1	1 × 1	1 × 1
+1	3 × 1	2 × 1	1 × 1
+2	4-5 × 1	3 × 2	1 × 2
+3	6-7 × 1	4-5 × 3	2 × 3
+4	8-10 × 1	6-7 × 4-5	3 × 4-5
+5	11-15 × 1	8-10 × 6-7	4-5 × 6-7
+6	16-20 × 1	11-15 × 8-10	6-7 × 8-10

### Reach

Huge fighters enjoy superior reach in melee combat. Add the bonus described in *Size Modifier and Reach* (p. B402) to the upper end of reach for melee weapons and unarmed attacks with limbs or Strikers. Always mark reach from the counter's edge. Treat bites as reach C or use this more complex option:

*What a Long Neck You Have!* For a Horizontal figure, add bonus reach to bites, too, but measure total reach from the center of the figure toward its head. Since bites start at reach C, they remain limited to close combat unless the bonus exceeds half the figure's length (rounded up). For upright monsters, bites are *always* close-combat attacks.

For instance, a snaky SM +6 dragon that is 16 hexes long but has a mere +7 reach can only bite foes in close combat; much of its counter *is* neck, so attacking with teeth means moving its head hex into its victim's hex. A boxy SM +6 predator that's 11 hexes long could exploit +7 reach to snap at foes within a yard of its head on the battle map. And a SM +6 giant might punch at reach 7, but bending over to chomp is an awkward close-combat move.

### Height Effects

There's also the issue of *what* each combatant can reach. Use *Combat at Different Levels* (pp. B402-403) with the following refinements:

1. Assess each fighter's *effective SM*. This is full SM for upright figures. Horizontal ones have -1 to SM, plus an *extra* -1 if they lack legs and travel by slithering, rolling, or similar. *Examples:* A SM +1 lion has effective SM 0, a SM +1 serpent has effective SM -1, a SM -1 rattlesnake has effective SM -3, and a SM -3 housecat has effective SM -4.

2. Consulting the *Size Modifier Table* (p. B19), use the “Longest Dimension” column to find an effective height to go with effective SM. This is *not* the same as true height; e.g., all SM 0 humans use “six feet,” while Horizontal beasts can rear up above standing shoulder height. Record this on character sheets if combat between different-sized beings is commonplace. *Examples:* Effective height is 6’ for the SM +1 lion, 4.5’ for the SM +1 serpent, 2’ for the SM -1 rattler, and 1.5’ for the housecat.

3. Use the disparity in effective height as “vertical difference” in *Combat at Different Levels*. *Examples:* Against a SM 0 human with effective height 6’, the SM +1 lion is at the same level, the SM +1 serpent uses “up to two feet of vertical difference,” the SM -1 rattlesnake uses “up to four feet of vertical difference,” and the housecat uses “up to five feet of vertical difference.”

4. *Effects of Reach* (p. B403) – including bonus reach from high SM (*Reach*, p. 5) – mitigates vertical difference normally.

Then make these further changes:

- At “up to six feet of vertical difference,” the larger fighter can target the smaller one’s head, neck, arms, and torso – not just the head. (If using advanced hit locations from *GURPS Low-Tech*, read “arms” as “shoulders” and “torso” as “chest.”)

- At “over six feet of vertical difference,” the smaller fighter uses the rules for “up to six feet of vertical difference” – that is, it’s *always* possible to attack a colossus’ feet or legs.

- At *any* vertical difference, the larger fighter can use a kick against any part of the smaller one at no modifiers other than those for hit location, kicking, and relative SM. The victim

defends at -1 for a three-foot difference, -2 for a four-foot difference, or -3 for a five-foot or larger difference.

Those who can move in three dimensions by flying or swimming can usually ignore height disparities. Other workarounds include climbing a larger opponent (*Going for a Ride*, p. 10) and picking up a smaller one (*Big Strength*, p. 10).

## Outsize Body Parts

Size Modifier isn’t always uniform. A monster uses the SM of an outsize body part to determine that part’s *reach* and *permitted attacks*, and whether said attacks can use *Huge Melee Attacks* (p. 7). Its opponents use that part’s greater SM when they attack it – and also when assessing *Barely Hanging On* (p. 10). Use bodily SM for *Incidental Collisions* (pp. 6-7), *Defense vs. Slams* (p. 9), *Special Attacks vs. High SM* (p. 8), pins, and almost all other purposes.

Some specific notes:

*Born Biters* (*Martial Arts*, p. 115): Increases SM for determining what a bite can accomplish (*Breakpoints*, below). Makes the jaw and nose easier for foes to hit.

*Long Arms* (p. B53) and *Long Strikers* (p. B88): Give additional reach with all melee attacks (including grapples) using those parts. Make those locations easier to hit, too.

*Long Legs* (pp. B54-55): Give additional reach with kicks. Add their SM bonus to body SM for the purpose of finding vertical difference (*Height Effects*, pp. 4-5), determining what the monster can evade for free (*Evading*, p. 6) or trample (p. B404), and assessing the creature’s lines of sight. Make the legs easier to hit and increase the monster’s SM for *Sand Through Fingers* (p. 7).

## BREAKPOINTS

When battling huge monsters, it’s imperative to know what game-changing rules “switch on” at specific SM differences. Collecting these:

- *Monster’s SM is equal to or larger than victim’s.* Monster with Constriction Attack (p. B43) can use it. Monster’s bite *can’t* attack internal vital spots (skull, spine, veins/arteries, or vitals), dismember anything but small body parts (ears, noses, etc.), or cripple limbs (but *can* cripple extremities, joints, and small body parts), and counts as a one-handed grapple (*GURPS Martial Arts*, p. 115).

- *Monster’s SM is one or more larger than victim’s.* Monster can “bear hug” its opponent’s torso in order to choke or strangle (pp. B370-371); it doesn’t have to grapple the neck. It can trample a victim who’s lying down (p. B404). Its bite can attack any hit location, and cripple or dismember anything, and counts as a two-handed grapple for strangling, breaking free, Neck Snap, and Wrench Limb, but as one-handed otherwise (*Martial Arts*, p. 115).

- *Monster’s SM is two or more larger than victim’s.* Monster completely blocks the line of sight of its diminutive foe while standing up (p. B389), unless it’s also Horizontal. It can trample regardless of its victim’s posture (p. B404). However, the monster is so huge that tiny

opponents needn’t kneel or lie down to grapple it while it’s prone, kneeling, or sitting (p. B370).

- *Monster’s SM is three or more larger than victim’s.* Monster fully blocks the line of sight of its puny rival while kneeling, or while standing up if it’s Horizontal (p. B389). Its tramples do large-area injury (p. B400). It can evade such tiny enemies without rolling dice simply by paying +1 movement point (p. B352, and see also *Movement*, pp. 6-7). Its bite can attack any hit location, and cripple or dismember anything; counts as a two-handed grapple for all purposes; and can attempt a pin on a standing foe (*Martial Arts*, p. 115).

- *Monster’s SM is four or more larger than victim’s.* Monster completely blocks the line of sight of its opponent under all circumstances (p. B389).

- *Monster’s SM is seven or more larger than victim’s.* Monster’s unarmed strikes and attacks with melee weapons scaled to its size inflict large-area injury (p. B400).

- *Monster’s SM is 10 or more larger than victim’s.* The GM may invoke *Small Size and Combat* (*GURPS Powers*, p. 76), letting Lilliputian rivals crawl inside the monster’s armor if its SM is 13 or more larger, enter its bloodstream through wounds if its SM is 19 or more larger, and penetrate its pores if its SM is 44 or more larger.

## SIDE ORDERS

**GURPS** gives you only what you pay for – and SM is a zero-cost feature. While it has upsides and downsides, these roughly balance out. Large monsters have some *typical* traits that the GM may want to add to stats blocks and racial templates, however.

**Strength:** As *Growth* (p. B58) suggests, creatures need ST equal to about five times height in yards for their SM on the *Size Modifier Table* (p. B19): ST 10 at SM 0, ST 15 at SM +1, ST 25 at SM +2, ST 35 at SM +3, ST 50 at SM +4, ST 75 at SM +5, and  $\times 10$  ST per additional +6 to SM (e.g., ST 350 at SM +9).

**Hit Points:** Per p. B16, HP are usually within 30% of ST – but *double* HP for Unliving, and *quadruple* HP for Homogenous or Diffuse.

**Move:** Movement speed increases with SM in a morphology-specific manner that isn't easy to express. It suffices to say that the GM should increase Move for big monsters. Bonus Move equal to SM is a bare minimum.

**Damage Resistance:** A monster's hide thickens with size. Consulting the *Size Modifier Table*, multiply DR by the ratio of "Longest Dimension" for scaled-up creatures, dropping fractions; e.g., SM +2 notes 5 yards while SM 0 gives 2 yards, and the resulting ratio of 2.5 would multiply the DR 1 of a SM 0 wolf to DR 2 for a SM +2 *giant* wolf. For DR 0 beings, like men scaled to giants, begin with DR 0.5 and drop fractions at the end; thus, a SM +4 giant with a ratio of 5 gets DR 2. Fantastic beings often have *more* DR – they just won't have less.

### Effects of Huge HP

The **Basic Set** offers several rules that apply when high-HP beings suffer harm:

**Collisions and Falls** (pp. B430-432): When a creature falls, or collides with an immovable object, dice of injury are proportional to HP.

**High HP and Healing** (p. B424): At 20+ HP, multiply HP healed for any reason by (full HP/10). The rules say to drop fractions – e.g., at 40-49 HP, healing is multiplied by 4 – but if the GM is fine with 47 HP multiplying healing by 4.7 (*then* rounding down), go ahead!

**Shock** (p. B419): At 20+ HP, the shock penalty is -1 per (full HP/10) of injury, dropping fractions.

If using *Bleeding* (p. B420), it makes sense for the HT roll to be at -1 per HP/2 lost rather than per 5 HP lost. Thus, a dragon with 40 HP rolls at -1 per 20 HP of injury, just as a man with 10 HP rolls at -1 per 5 HP.

**Disease** (pp. B442-444) *might* be proportional, too; e.g., a disease that takes 1 HP from a man with 10 HP inflicts 4 HP on a dragon with 40 HP. That's sensible when HP loss is shorthand for a countdown ("kills victims in  $x$  days"). Don't scale localized injury such as infection, or supernatural attacks explained as disease.

**Stretching** (p. B88): As above for arms or legs. Stretching the *neck* adds SM for the purpose of biting reach (though not what a bite can do) and the monster's lines of sight, but makes the neck easier to hit.

## MOVEMENT

Huge creatures always obey the rules in *Multi-Hex Figures* (p. B392) when moving, modified as follows. The biggest changes are to *Slam* and *Overrun*.

## Evading

Per *Jumping* (p. B352), obstacles *three or more SM smaller* than a fighter count only as minor obstructions that cost +1 movement point to bypass (see *Movement Point Costs*, p. B387). Nothing changes if such an obstacle happens to be an opponent! The monster doesn't have to roll to evade (p. B368) such a tiny foe; it just pays a movement point and keeps going. On a crowded battlefield, apply this generalization:

*You and What Army?* The monster pays the extra movement point only once per yard of movement regardless of the number of puny foes that step encounters; e.g., if the SM +3 elephant depicted on p. B392 had a SM 0 man in each of the three hexes dead ahead, it would pay *one* extra point to evade them, not three.

All this assumes the monster steps *over* foes. If can't – or chooses not to – read on!

## Incidental Collisions

These rules pertain to monsters *three or more SM larger* than their foes:

**Steamroller!** If the monster moves by means other than walking – rolling, slithering, etc. – the "free" evade *also* counts as a free slam attempt (pp. B371-272). Such a slam requires no roll to hit, and *Defense vs. Slams* (p. 9) applies. A creature that has legs (or that can fly) never has to risk a slam; it may *opt* to take the free slam, or it may clear the smaller figure(s) by stepping/jumping over them, evading without slamming.

**Didn't See You There:** If realigning a larger figure with its head *after* it enters a hex or turns sweeps it through a smaller one's space, don't use the above rule; instead, treat it as a free two-handed shove (p. B372) that requires no roll to hit. *Defense vs. Slams* still applies to the target's defense. This shove inflicts knockback – only – based on the monster's thrust damage (*not* doubled, as with a deliberate shove). A victim who defends or suffers no knockback stays put, ducking under or around the monster. One who's knocked back at all is swept along – move the victim's counter as though it were part of the monster's!

**Incidental Tramples:** Anybody *knocked down* by either variety of incidental collision may suffer trampling damage (p. B404) if the monster's movement continues past the point of contact. This requires no roll to hit but *does* allow a dodge at the standard -3 for lying down; the victim may retreat by rolling, for the usual +3, but *Defense Bonus* (e.g., for a shield) is of no value. A hit inflicts trampling damage for half ST (record this for big creatures), which is large-area injury (p. B400).

*Belly Flop*: If a flying colossus lands atop someone, *Defense vs. Slams* applies – and any defense likely suffers the extra -2 for *Attack from Above* (p. B402). On a hit, use the damage for an incidental trample (above) if the landing was deliberate, or *Damage from Falling Objects* (p. B431) if the monster crashed (as when incapacitated). Either way, it's large-area injury and the victim's next turn includes squirming free, giving -3 to active defenses and allowing at most a step of movement.

## Being Evaded

Tiny fighters often want to evade huge monsters by ducking between legs and so on. If the evader is *one or two SM smaller*, use the rules on p. B368. The larger creature isn't big enough to prevent the smaller one from pushing past, leaping over, etc. in the usual fashion.

If the evader is *three or more SM smaller*, use whichever of the following rules applies:

*None Shall Pass*: If the larger creature rolls, slithers, or otherwise has zero ground clearance – or has legs but is currently sitting, kneeling, or prone – the only way for the smaller one to evade is to vault over it. The attempt *must* use DX, Acrobatics, or Jumping (not Judo), and suffers an additional *penalty* equal to the SM difference.

*Sand Through Fingers*: If the larger creature has legs, levitates, or otherwise has ground clearance, it will have trouble keeping a small, nimble opponent from evading. Such an attempt can use any legal skill, and gets an additional *bonus* equal to the SM difference.

Regardless of relative SM, the evader still has to cover the ground! Use this next rule whenever that is in doubt:

*Transit Time*: A figure might be so vast (see *Size in Hexes*, p. 4) that a tiny opponent who successfully evades has insufficient Move to pass through its space in a single turn. If so, the evader ends the turn next to (if SM difference is two or less), atop (*None Shall Pass*), or beneath (*Sand Through Fingers*) the bigger foe. One who's beside the monster is subject to *Incidental Collisions* (pp. 6-7) if the creature moves. One who's under it is in the same boat – and if the monster drops to a lower posture for any reason, it inflicts full trampling damage (p. B404) instead, no defense allowed! Someone on top is now *Going for a Ride* (p. 10). Each turn of evading calls for a *new* Quick Contest.

## ATTACK

Larger beings are easier to hit and sometimes have a hard time striking smaller rivals. The **Basic Set** rules need refinement to allow for more sensible scaling, however.

## Melee Attacks

As p. B19 spells out, SM is a “modifier to rolls to hit you in combat.” That means *all* combat – not merely ranged combat. However, a literal reading of this rule implies that rival SM -10 insects would rarely land a blow in a melee, while dueling SM +10 titans would almost never miss. It needs adjustment for *relative size* so that opponents of the same SM fight on an equal footing, just like SM 0 humans:

*Size Modifiers in Melee Combat*: For *melee* attacks only, apply the *difference* in SM as a penalty to the attack rolls of the larger combatant. Add it as a bonus to the attack rolls of the smaller fighter, to a maximum of +4. In both cases, this affects striking only; grappling works differently (*Grappling*, pp. 9-10).

Thus, a SM +1 ogre has -3 to hit a SM -2 halfling and -7 to strike a SM -6 pixie with melee attacks, while against the ogre, the halfling has +3 to melee attacks and the pixie enjoys the maximum +4 (*not* +7).

## Huge Melee Attacks

If a creature is *seven or more SM larger* than its opponent, its unarmed strikes and blows with melee weapons scaled to its size deal large-area injury (p. B400), implying that such things are targeting a general area! This suggests a rule:

*Swatting Flies*: A creature *seven or more SM larger* than its target suffers relative SM as a penalty only if it targets a particular hit location (the torso counts). Alternatively, it can simply try *Attacking an Area* (p. B414), rolling at +4 instead of at -7 or worse! The victim's only permitted defense is *Diving for Cover* (p. B377), and the Defense Bonus of a buckler, cloak, or shield never helps. A successful defense or a missed attack leaves the attacker overbalanced: -2 to DX and -1 to active defenses until next turn. Otherwise, the blow does large-area injury.

This may seem abrupt: -1, -2, -3, . . . , -6, +4. If the GM prefers, *any* warrior attacking a smaller foe can avoid relative SM penalties by attacking a general area:

*Big Swings*: Exploiting huge size to pummel entire areas can blunt the downside of high SM. Roll to hit at a basic -3 plus SM difference, to a maximum of +4. As a one-SM difference gives -2, this isn't *useful* until SM is at least two larger. The victim defends normally. A successful defense or a missed attack leaves the attacker at -2 to DX and -1 to active defenses until next turn. A hit uses *Random Hit Location* (p. B400) and *doesn't* inflict large-area injury.

Some humongous monsters have true area-effect attacks capable of hitting many foes at once; if so, the GM should specify this.

*Man in Black: Look, are you just fiddling around with me or what?*

*Fezzik: I just want you to feel you're doing well.*

– *The Princess Bride*

## SPECIAL ATTACKS vs. HIGH SM

*Afflictions:* The GM might optionally extend *Afflictions and Inanimate Targets* (*Powers*, p. 40) to all large combatants, so that tiny stun-guns and the like can't easily drop giants. Simply add SM to HT-based resistance against Afflictions. If modified HT is 21+ after adding SM and subtracting the Affliction's HT modifier, resistance is *automatic*.

*Entangling Weapons:* Add SM difference to all rolls to avoid bad effects due to or escape from bolas, lariats, nets, etc. scaled to smaller users; e.g., human-made (SM 0) bolas give SM +1 ogres +1 to DX rolls to escape or avoid tripping, and to ST rolls against disarms. Oversized weapons can mitigate this, but these weigh and cost more, and give the user -1 to skill per extra SM.

*Fragmentation Damage* (p. B414-415): Add SM to rolls to be hit by fragments.

*Poison* (pp. B437-439): Delays assume SM 0. Double them for each +1 SM; halve them for each -1 SM.

*Pressure* (p. B435): At SM +2 or more, multiply injury from high pressure by SM.

*Regular Spells* (p. B239): Multiply energy cost for Regular spells by (1 + SM). This can get out of hand in high-powered games, with wizards casting spells on, say, SM +43 planets at x44 cost. The GM who doesn't mind the extra math can subtract two from SM, consult the *Size*

and *Speed/Range Table* (p. B550), and use "Linear Measurement" in yards as the cost multiplier. Thus, SM 0 is x1, SM +1 is x1.5, SM +2 is x2, SM +3 is x3, SM +4 is x5, SM +5 is x7, and each +6 to SM past that is another x10 (e.g., x50 cost at SM +10). This doesn't change things *that* much for ogres, elephants, and dragons.

### Size and Fear

Per *Attacks by Mounts* (p. B397), troops charged by mounted warriors might have to make Will rolls to avoid panic. Fighters with SM equal to or greater than the mount's needn't roll. Thus, ogres, dragons, etc. won't flee before knights riding ordinary SM +1 horses, while dragon-riders on colossal wyrms can panic almost anyone!

Size affects Intimidation (p. B202) as well. Smaller fighters take relative SM as a skill penalty; larger ones receive it as a bonus.

As an optional extension of these ideas, when beings of different sizes inflict Fright Checks on one another, relative SM acts as a bonus to the larger party's rolls and a penalty to those of the smaller individual. Thus, a SM +4 dragon with Terror gives SM 0 men a *free* -4 to Will, while the dragon rolls at +4 vs. human-sized opponents with the same ability.

### Ranged Attacks

In *ranged* combat, apply absolute target SM as usual. However, a further rule does make sense:

*Close Approaches:* For ranged attacks only, being closer than two yards cancels some penalties for negative SM (but never results in a net bonus). At one yard, any attacker may ignore up to -2 due to SM. In close combat, the penalty ignored is up to -4 or the attacker's own negative SM, whichever is more favorable – but remember to apply the Bulk penalty (*Weapons for Close Combat*, p. B391) and note that targets this close may parry missiles by slapping aside the attacker's hand (p. B376).

Thus, at two yards, a SM 0 human, a SM -2 halfling, and a SM -6 pixie all have -2 to hit a halfling and -6 to hit a pixie with ranged attacks. At one yard, all three ignore up to -2 from target SM, giving 0 vs. a halfling and -4 vs. a pixie. In close combat, the human and the halfling can ignore up to -4 from SM, resulting in 0 vs. a halfling, -2 vs. a pixie. The pixie can approach closely enough to avoid up to her own SM -6, and experiences no SM penalties against any of these targets!

This lets tiny beings stand their own height apart and enjoy the same modifiers as two SM 0 humans standing *their* height apart. For beings of SM +1 and above, this rule isn't needed because range penalties kick in; e.g., titans with SM +10 standing their height apart (-10 for distance) *still* have no net penalty to hit . . . but humans attacking the titans can approach closely enough to avoid range penalties yet enjoy +10 to hit for size.

## DEFENSE

Huge fighters wield huge weapons. For blocks, use *Damage to Shields* (p. B484) to assess the effects of stopping heavy blows. Parries require special rules, however – and some attacks are simply *too big*.

### Parrying

Big weapons pose two threats to smaller victims who try to parry, as described in *Parrying Heavy Weapons* (p. B376):

1. A weapon three or more times as massive as the defender's has a 2 in 6 chance (1-2 on 1d) of breaking the parrying weapon, rising by +1 per full multiple above three, and modified further for weapon quality (+2 for cheap, -1 for fine, or -2 for very fine).

2. A weapon that weighs more than the defender's Basic Lift (BL) if defending one-handed – or 2xBL if defending two-handed – automatically bypasses the parry, disarming an armed defender if the weapon doesn't break, or knocking back an unarmed defender.

These rules aren't ideal, though. Unarmed attacks are treated as having an effective weight of 1/10 of the attacker's ST – or *full* ST, for the attacks under *Slam* (pp. B371-372). This might seem fine, but consider that BL increases with the square of ST; thus, ST 1 or 2 beings with BL 0.2 or 0.8 and maximum two-handed parrying weights of 0.4 or 1.6 lbs. can't parry the 1-lb. or 2-lb. slams of their own kind . . . while ST 10 humans with BL 20 and maximum two-handed parrying weight of 40 lbs. can parry even the 40-lb. slams of ST 40 monsters.



Perhaps worse, the 4-lb. bite or claw of a ST 40 beast poses no significant danger to most human-scale weapons. To fix this, use the following:

*Quadratic Natural Attacks:* Effective weight of an unarmed attack is 1/20 of the attacker's Basic Lift (that's ST×ST/100) – rising to 1/2 of BL (that's ST×ST/10) on a slam.

This gives consistent ratios of effective unarmed weapon weights to maximum parry weights at every ST. Now ordinary ST 10 humans won't be able to parry ST 15+ slams or ST 45+ bites/claws one-handed, or ST 21+ slams and ST 64+ bites/claws two-handed – and ST 30+ claw swipes will threaten even serious weapons like 3-lb. broadswords!

Another issue is the independence of the attacker's ST and weapon weight. Even the existing rules have oddities such as an attacker with ST 24 and an effective fist weight of 2.4 lbs. being able to use full strength through a hatchet, saber, or shortsword (three times the minimum ST 8 for those weapons) that only counts as a 2-lb. weapon. Swinging a weapon makes the brute's blows *safer* to parry! *Quadratic Natural Attacks* exaggerates this gap. It's also counterintuitive that, say, ST 10 and ST 30 fighters are equally likely to sweep aside or shatter defenders' weapons with their own, because all that matters is relative weapon weight. This next rule fixes that:

*Weapon Power:* For purposes affecting the defender's parry against an armed melee attack, use the *greater* of the attacker's effective unarmed attack weight or the weapon's actual weight.

Thus, a ST 10, BL 20 man with an effective 1-lb. punch and wielding a 3-lb. broadsword has a 3-lb. attack . . . while a ST 30, BL 180 brute with an effective 9-lb. punch and the same blade has a 9-lb. attack that can break other broadswords. For additional realism, use this add-on:

*Punching Above Weight:* If effective armed attack weight exceeds *actual* weapon weight by a factor of three or more, the attacker's weapon risks breakage when a parry stops it (even if the enemy weapon breaks but the parry still counts) or when the blow fails to penetrate DR. In those cases, roll for breakage as when parrying, using the ratio of effective weight to actual weight.

Thus, that brute with a broadsword has a 2 in 6 chance of shattering the sword against massive DR or a successful parry.

## Defense vs. Slams

By the rules, when a huge being slams a smaller one – whether deliberately or due to *Incidental Collisions* (pp. 6-7) – the target can block, dodge, or parry. That's reasonable if the monster is at most two SM larger than its victim and no wider, though such creatures are usually strong enough for this to be murder on weapons and shields! However, if the attacker is any bigger, active defenses become implausible. Use this optional rule:

*Huge Slams:* When one figure slams another that's smaller than it in width (e.g., two or more hexes wide vs. a one-hex-wide man) – and regardless, when the victim of a slam is *three or more SM smaller* than the attacker – the sole permitted defense is *Diving for Cover* (p. B377), and the Defense Bonus of a buckler, cloak, or shield doesn't count. On a map, this works

only if the dodge succeeds *and* the defender's step is large enough to get out of the attacker's path; e.g., a man barely clipped by an elephant's counter could dive to safety regardless of step, but one hit head-on would need to be able to step two yards. Without a map, assume the attack is centered, so step must equal or exceed half of the attacker's width, rounded up; e.g., a man charged by a three-yard-wide elephant needs to be able to step two yards.

The GM can also invoke this ruling when an attack other than a slam is so physically extensive that the only logical defense is diving aside. The usual candidates are strikes involving the entire body rather than just limbs or teeth. Even unarmed and weapon attacks can work this way if the *attacker* is big enough, though; see *Huge Melee Attacks* (p. 7).

As *Being Evaded* (p. 7) suggests, a smaller figure can sometimes use fancy athletics to tumble under or over a larger one, eluding it. The GM may permit this as a defense:

*Evasive Action!* Against a slamming attacker too large to permit normal defenses, the defender may make a "free" evade attempt of any type allowed against the onrushing foe. This replaces a standard active defense – and yes, evading is easier than dodging in some cases! Failure means being hit. Success sees the *monster* move through the *defender's* space without making contact.

## Shields and Size

The Defense Bonus (DB) of a buckler, cloak, or shield reflects not its absolute size but the extent to which it covers the defender's body. Therefore, a properly scaled example always gives the user its full DB. However, DB is never of any value against *slams*, *shoves*, or *tramples* by attackers three or more SM larger than the defender; when a wider assailant slams, regardless of exact SM; or in *Swatting Flies* (p. 7) situations.

## GRAPPLING

The *Basic Set* contains two rules for grappling matches between fighters of different sizes:

1. Each point of SM difference gives the larger fighter +3 in the Regular Contest for a pin (p. B370). (When following the advanced rules in *GURPS Martial Arts: Technical Grappling*, replace this bonus with +15% to Trained ST per point of SM difference in *all* grappling Contests.)
2. Each point of SM difference gives the larger fighter +1 to hit with a grapple (p. B402). This is *instead of* the modifiers described under *Melee Attacks* (p. 7), but is capped at +4. A SM +1 ogre has -7 to punch a SM -6 pixie but +4 to grapple, and this +4 replaces the bonus that *Huge Melee Attacks* (p. 7) might give (it's effectively the same thing).

The first rule applies no matter who initiates the pin; the bigger fighter always enjoys an advantage. The second one matters only when the larger fighter attacks the smaller – do not invert it to penalize diminutive grapplers, who still receive the standard bonus for relative SM (maximum +4) because there's so much to hang on to. It isn't realistic to let tiny hands grapple gigantic body parts for purposes *beyond* hanging on, though! Handle that as follows:

*Barely Hanging On:* When a smaller fighter grapples a larger one and the relative SM bonus plus the hit-location penalty for grappling (p. B370) is greater than zero, the smaller grappler can hold on but not exploit the grapple for follow-up moves (Arm Lock, Choke Hold, Neck Snap, etc.).

For instance, a SM -2 halfling fighting a SM +1 ogre has +3 to hit for relative SM, even when grappling. The standard grappling penalties are -1 for an arm or a leg -2 for a hand or a foot, and -3 for the face or neck, which total +2, +1, and 0, respectively. Thus, only the ogre's face and neck remain vulnerable to the halfling's locks, holds, etc.

## Big Strength

Large-SM monsters often have sufficient ST to benefit from two further grappling rules:

1. Per p. B370, if the monster's ST is more than *twice* that of someone grappling it, its puny attacker merely counts as extra encumbrance. Such an insignificant opponent can't prevent it from moving away!

2. Follow-up moves that involve *picking up* the enemy after grappling – including basic attempts to lift someone (say, as a prelude to a bite), as well as the Backbreaker, Piledriver, and Wrench Spine techniques in *Martial Arts* – only work on targets that weigh at most BL×4 lbs. when using two limbs or BL lbs. when using just one. This typically lets monsters do bad things to victims, but not vice versa.

## Going for a Ride

As *Being Evaded* (p. 7) explains, a combatant who wins the Quick Contest to evade a figure *three or more SM larger* by vaulting over it, but who doesn't have the Move to clear the opponent's entire body, ends up *on top*. This is tricky to accomplish, though – the smaller individual must win an already-difficult Contest at a penalty equal to the SM difference. Losing means being unable to leap high enough to clear a hostile enemy bent on blocking the way.

But what if the smaller fighter *climbs* up? That starts with a two-handed grapple of whatever body part is nearest; the tiny attacker can use the *best* of DX, any grappling skill, or Climbing skill. The target defends normally; smart monster-riders exploit the relative-SM bonus to make a Deceptive Attack (pp. B369-370). If the grapple works, the grappler is now climbing his oversized foe!

Whether the smaller fighter gets aboard by evading or by grappling, later turns are considered climbing. On the monster's first turn after being boarded and every turn thereafter until it sheds its tiny tormentor, the creature may ignore this annoyance or attempt to buck or roll over. It's up to the GM whether it can attack something on its body in any other way – a fireproof dragon may well scorch its own hide!

Bucking counts as an attack. Roll a Quick Contest: creature's DX or best grappling skill vs. climber's DX, best grappling skill, Climbing, or Riding for that creature type, at a penalty equal to SM difference. Victory means the climber falls. The monster can rear up to ensure a fall from any height

up to half "Longest Dimension" on the *Size Modifier Table* (p. B19); e.g., 10 yards for a SM +6 dragon. Otherwise, the climber stays aboard.

Rolling over also counts as an attack. The monster simply does it! Its foe can attempt to jump off as his active defense; use *Diving for Cover* (p. B377) without any Defense Bonus. A successful defense lets the victim land on his feet next to the monster before being rolled on. Failure means suffering *full* trampling damage (p. B404) and ending up lying on the ground next to the monster. Someone who opts to hang on instead of defending automatically takes damage and must roll against DX, best grappling skill, Climbing, or Riding for that creature, at a penalty equal to the SM difference, or be dislodged (as above) regardless.

On each later turn, the climber can clamber one yard up the monster's body, usually to get nearer the head. Clinging and Super-Climbing speed this up normally. This counts as a step, so other actions *are* possible – but at a basic -2, plus *another* -2 if the creature attacked or dodged on its last turn. If the smaller fighter frees a hand, such as to attack, he's more vulnerable to being bucked or rolled on: apply the same penalty (-2 or -4) to DX and DX-based skill rolls, and half of it (-1 or -2) to active defenses, against either.

If the monster is particularly huge and flat (seven or more SM difference) – or if the climber has Perfect Balance – the GM may permit *running* instead of climbing! In that case, the creature counts as treacherous ground (p. B387): +1 movement point per hex. A running fighter has hands free for other actions but is still at -2 or -4 to act. Attempts to avoid bucking use the better of DX or Acrobatics; grappling skills, Climbing, and Riding aren't relevant.

*Spines:* Many monsters have Spines (p. B88). These change the damage due to rolling from crushing to impaling, but give climbers +2 to rolls to grapple or hang on.

*You're a great warrior! And a swordsman! . . .  
And you're ten times bigger than I am, stupid!*

*– Willow, in Willow*

## ABOUT THE AUTHOR

Sean "Dr. Kromm" Punch set out to become a particle physicist in 1985, ended up the *GURPS* Line Editor in 1995, and has engineered rules for almost every *GURPS* product since. He developed, edited, or wrote dozens of *GURPS Third Edition* projects between 1995 and 2002. In 2004, he produced the *GURPS Basic Set, Fourth Edition* with David Pulver. Since then, he has created *GURPS Powers* (with Phil Masters), *GURPS Martial Arts* (with Peter Dell'Orto), *GURPS Zombies*, and the *GURPS Action, GURPS Dungeon Fantasy*, and *GURPS Power-Ups* series . . . among other things. Sean has been a gamer since 1979. His non-gaming interests include cinema, mixology, and Argentine tango.

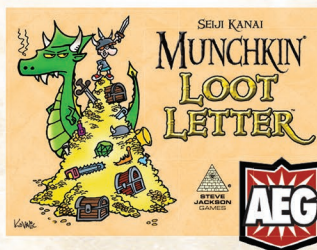
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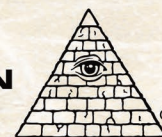


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# LOW-TECH ARMOR LOADOUTS FOR THE NEW WORLD

BY DAN HOWARD

**GURPS Loadouts: Low-Tech Armor** takes the rules described in **GURPS Low-Tech** for designing armor and applies them to historical armor. Specific cultures and time periods were selected, the most common or interesting armor was researched, and the individual pieces were created using **GURPS** stats. Loadouts were selected to cover as wide a range of cultures as possible and to showcase different ways of using the **Low-Tech** armor-building mechanics.

**Loadouts: Low-Tech Armor** had a strict page limit, so many potential loadouts couldn't make it to the final draft. It was envisioned that some of those could be kept for an appearance in *Pyramid*, so it made sense to group them together into a common theme. For this set of loadouts, I decided upon the New World. Included here are loadouts for Spanish invaders and three native peoples of the Americas: Aztec, Shoshone, and Tlingit. When combined with the original supplement, gamers now have a total of 30 different loadouts from all over the world to use in their campaigns.

## FROM THE AUTHOR

This was one of the most difficult books I have ever written. Each of the 26 entries required a similar amount of research as writing the equivalent of an Osprey book on the subject, and all of that research had to be compressed into a digest of one to three pages. In addition, a lot of calculations were involved in determining the various stats for each piece of armor and putting them into a concise loadout table. Even with computerized assistance, many errors crept into the tables in the initial draft. I'd like to thank Douglas Cole and his team for their relentless search for these miscalculations.

Several problems had to be addressed: Armors that didn't fit neatly into the various categories in **Low-Tech** were simplified. Data on the protective capacity of some armors were not available so the DR had to be estimated by using similar examples from other cultures. New rules had to be devised to

help explain why some types of armor were historically preferred over others that might seem more obvious choices from the rules in **Low-Tech**.

I tried to include ethnic terms for all of the pieces of armor, which involved a pile of lexicons and combing through sources in their original language, but sometimes nothing could be found even after weeks of searching. Even finding suitable artwork was a challenge, since this loadouts supplement was specifically about historical armor – illustrations that accurately depict genuine historical armor are a lot harder to get than one might think. I ended up doing about half of the illustrations myself, and my artistic skills are one of the reasons why I chose to be a writer.

I know that this is a favorite topic for some people. I've had many members of the Steve Jackson Games forums come to me with questions or requests for custom loadouts, and have been unable to help due to the research time required to do it *right*. Hopefully this article will go some way toward addressing those requests. Apologies to all those for whom I was unable to provide more useful advice when they asked for my opinion. Hopefully this article will go some way to redressing that.

*Seven new Low-Tech Armor loadouts!*

## ABOUT THE AUTHOR

Dan Howard has an arts degree in history and classical studies. He was co-author of **GURPS Low-Tech** and author of many articles and supplements for Steve Jackson Games. Dan has written a book titled *Bronze Age Military Equipment*, for Pen and Sword Books Ltd., and has published an e-book called *Compact Castles* (available at [warehouse23.com/products/compact-castles](http://warehouse23.com/products/compact-castles)). He holds a second dan black belt in Oh Do Kwan Tae Kwon Do and has competed internationally.

# SPANISH CONQUISTADOR

An arrow, where it finds no armor, pierces as deeply as a crossbow . . . For the most part when they strike upon mail, they break at the place where they are bound together. Those of cane split and pierce a coat of mail, causing more injury than the other.

– “The Gentleman of Elvas”

In 1492 the *Reconquista* concluded with the fall of Granada. This campaign against the Moslems in Spain lasted for seven centuries. By the end of it, the nation was impoverished, with few assets except for a large army of cynical, battle-hardened soldiers. The discovery of the New World came at just the right time for Spain’s rulers – many ex-soldiers, who might have turned to brigandage at home, instead sailed for the Americas to seek their fortune.

Every fighter owned his own equipment and weapons but, with no uniform or centralized arms manufacture, no two men carried the same gear. Only the wealthiest could afford custom-made armor. The majority of adventurers cobbled together equipment from wherever they could. Most of the armor taken to the New World would have been considered obsolete in 16th-century Europe.

Plate cuirasses (*corazo*) were made of good quality Spanish steel but usually only worn by cavalry officers. Full plate harnesses were very rare – only worn by a few commanders. The majority of metal armor was mail (*malla*) – either a short sleeveless vest (*acqueta de malla*) that only covered the chest, or a longer sleeveless variant (*cota de malla*) that covered the entire torso. A few cavalymen also wore mail on their legs.

Most conquistadors just had a layered cloth vest (*escaupil*) or a leather jacket (*cuerra*). The notable aspect of their armor is the lack of protection on the arms and legs – especially on the infantry. The only armor most infantry wore below the waist was a single knee cop (*guarda o rodillera*) on the leading leg. Under the armor was worn a linen or woolen shirt (*camisa*)

or a doublet (*doblete*) – with or without sleeves – and trousers. Leather boots and gloves were worn by cavalymen, but the rest made do with cheap shoes. Once in the New World, they replaced worn-out footwear with yucca-fiber sandals.

Pretty much everyone wore a helmet (*casco*) – usually a brimmed *cabasset*, *morion*, or *burgonet* (*borgonata*) style. Cortez found his men short of head protection, and so he had additional helmets manufactured once he was secure in Cuba. In addition to the helmet, many wore a gorget (*gorjal*) – a guard that protected the neck and chin. Some had segmented plate *munnions* that extended out from the gorget to protect the shoulders.

## Shields

Shields (*rodela*) were medium circular bucklers. Some had a spike instead of a central boss and a strap to sling it over the shoulder when not in use.

*Rodela*: DR 2, \$60, 14 lbs., DR 4, HP 20, Cover DR 9.

## Mexican Strike Force

Occasionally, the Spanish were more uniformly protected. When Cortez was preparing to attack Mexico, he ordered that every man in the initial strike force of 300 men be equipped in “very good armor, well padded, and a gorget, helmet, leggings, and a shield.” By this time, many of the Spanish had adopted the quilted cotton armor of the natives, which they called *escaupil* (see *Aztec Warrior*, pp. 14-15). Treat this as medium layered cloth armor (**Low-Tech**, p. 103). The gorget probably included munnions as well. The word “leggings” (*antipara*) refers to some sort of padded pants, probably a little lighter and more flexible than the *escaupil*; treat as light layered cloth (**Low-Tech**, p. 103).

## 16th-Century Spanish Conquistador – Infantry Loadout

Some wealthier members of the infantry wore a light brigandine (*bergandina*) over their mail. It covered the chest and abdomen: DR 3, cost \$900, weight 10 lbs., don 30 secs. Add this to the loadout below and penalize DX by -1 because of armor layering.

Common Name	Ethnic Name	Location	DR	Cost	Weight	Don	Notes
Shirt	<i>Camisa</i>	torso, arms	0	\$72	2.4	23	
Pants	<i>Pantalones</i>	legs	0	\$48	1.6	15	
Mail Shirt	<i>Cota de Malla</i>	torso	3*	\$500	12	15	[1]
Gorget	<i>Gorjal</i>	neck, jaw	3	\$80	0.7	4	[2, 3]
–	<i>Munnions</i>	shoulders	3	\$60	1.6	5	
Knee Guard	<i>Guarda o Rodillera</i>	knee	4	\$125	0.2	3	[4]
Shoes	<i>Zapatos</i>	feet	1	\$40	2	6	
Helmet	<i>Casco</i>	head	7	\$529	4.8	12	[5]
<b>TOTAL</b>	–	–	–	<b>\$1,454</b>	<b>25.3</b>	<b>83</b>	

### Notes

[1] -2 DR vs. *crushing*.

[2] Protects the face on a roll of 1 on 1d.

[3] -1 to combat (see *Restrictive Neck Armor*, **Loadouts: Low-Tech Armor**, p. 4).

[4] Covers one knee only.

[5] Protects the face on a roll of 6 on 1d (2-6 from above).

## 16th-Century Spanish Conquistador – Cavalry Loadout

The combination of padded pants and knee cops gives a total DR of 6 on the knees.

Common Name	Ethnic Name	Location	DR	Cost	Weight	Don	Notes
Shirt	<i>Camisa</i>	torso, arms	0	\$72	2.4	23	
Padded Pants	<i>Antipara</i>	legs	2*	\$150	12	20	
Breastplate	<i>Peto</i>	chest	7	\$4,690	7.5	17	
Backplate	<i>Dos</i>	back	4	\$1,875	3	17	
Fauld	<i>Faldaje</i>	abdomen	5	\$1,125	6	12	
Mail Sleeves	<i>Guardabrazo</i>	arms	3*	\$250	6	8	[1]
Gorget	<i>Gorjal</i>	neck, jaw	4	\$500	0.8	5	[2, 3]
Knee Guards	<i>Guarda o Rodillera</i>	knees	4	\$250	0.4	6	
Gloves	<i>Guantes</i>	hands	0*	\$15	0.5	10	[4, 5]
Boots	<i>Botas</i>	feet, shins	0*	\$108	2	10	[5]
Helmet	<i>Casco</i>	head	8	\$2,645	4.8	12	[6]
<b>TOTAL</b>	–	–	–	<b>\$11,680</b>	<b>45.4</b>	<b>140</b>	

### Notes

[1] -2 DR vs. *crushing*.

[2] Protects the face on a roll of 1 on 1d.

[3] -1 to combat (see *Restrictive Neck Armor, Loadouts: Low-Tech Armor*, p. 4).

[4] Gives Ham Fisted 1 (p. B138).

[5] +1 DR vs. *cutting*.

[6] Protects the face on a roll of 6 on 1d (2-6 from above).

## 16th-Century Spanish Conquistador – Mexican Strike Force Loadout

The combination of padded pants and knee cop gives a total DR of 6 on the knee.

Common Name	Ethnic Name	Location	DR	Cost	Weight	Don	Notes
Shirt	<i>Camisa</i>	torso, arms	0	\$72	2.4	23	
Padded Vest	<i>Escaupil</i>	chest	3	\$263	15	23	
Padded Pants	<i>Antipara</i>	legs	2*	\$150	12	20	
Gorget	<i>Gorjal</i>	neck, jaw	3	\$100	0.8	5	[1, 2]
–	<i>Munnions</i>	shoulders	3	\$60	1.6	5	
Knee Guard	<i>Guarda o Rodillera</i>	knee	4	\$125	0.2	3	[3]
Shoes	<i>Zapatos</i>	feet	1	\$40	2	6	
Helmet	<i>Casco</i>	head	7	\$529	4.8	12	[4]
<b>TOTAL</b>	–	–	–	<b>\$1,339</b>	<b>38.8</b>	<b>97</b>	

### Notes

[1] Protects the face on a roll of 1 on 1d.

[2] -1 to combat (see *Restrictive Neck Armor, Loadouts: Low-Tech Armor*, p. 4).

[3] Covers one knee only.

[4] Protects the face on a roll of 6 on 1d (2-6 from above).

*I say that we were on the alert. . . since we never took off our armored corselets, collars, or leggings by night or by day.*

– *Bernal Diaz Del Castillo, Conquest of New Spain*

# AZTEC WARRIOR

*The armor which they use in war are certain loose garments like doublets made of quilted cotton, a finger and a half thick, and sometimes two fingers; they are very strong. Over them they wear a doublet and hose all one garment, which are corded behind. This garment is made of thick cloth and is covered with*

*a layer of feathers of different colors, making a fine effect . . . for neither arrows nor darts pierce them, but are thrown back without making any wound, and even with swords it is difficult to penetrate through them.*

– *Companion of Hernan Cortez*

In Aztec society, the largest military orders were known as the Eagles (*quauhtin*) and the Jaguars (*ócelomeh*). They distinguished themselves by wearing feathers and animal pelts. The armor described below was only permitted to those warriors who had already proved themselves in combat. Novices, both common and noble, only carried a shield to battle. Any warrior who excelled in combat could be elevated to the military orders (Status 2) and permitted to wear armor.

There were several types of body armor. The main defense consisted of a thick, sleeveless, quilted cotton corselet (*ichcahuipilli*). It proved so effective that Spanish conquistadors adopted it themselves, calling it *escaupil* (see *Spanish Conquistador*, pp. 13-14). Treat this as medium layered cloth armor (**Low-Tech**, p. 103). Some classes were also permitted to wear a full body suit (*tlahuiztli*) made of light animal hide (see *Light Leather*, **Low-Tech**, p. 104). War leaders (Status 3) wore a feathered tunic (*ehuatl*) as an additional layer of protection (see *Feathers*, **Low-Tech**, p. 104). Variants of this garment were put on different parts of the body. Most only covered the torso but some had sleeves and/or leggings. The elite warriors sometimes wore limb protection made from barkcloth (see *Paper Armor*, **Low-Tech**, p. 106) or wooden guards on the shins (*cotzehuatl*), upper arms (*matemecatli*), and wrists (*matzopetzli*). These were decorated with fringes of leather thong and feathers. Many warriors fought barefoot, but some wore sandals (*cactli*).

Two types of helmets (*cuacalalatli*) were worn. One was a pot helm carved from wood, while the other was made from

the head of an animal (jaguar, puma, wolf, coyote, etc.). It was held together with a wooden frame and padded with cotton. The wearer's face looked out of the open jaws of the animal. Most helmets were adorned with crests made of feathers.

The combination of *ichcahuipilli* and *tlahuiztli* provides DR 3 against all attacks except cutting, which is DR 4. The highest ranking warriors have a feather-covered body suit called a *ehuatl*, which gives DR 4 against both cutting attacks and light projectiles. The armor layering rules (**Low-Tech**, p. 103) give this combination a DX penalty of -1.

## Shields

Shields (*chimalli*) were circular and of two main types – both medium bucklers but one was lighter than the other. The heavier type was made of wood (*cuauhchimalli*) and the lighter variant made of maize cane (*otlachimalli*) with a facing of hide. Some had bosses and ornamentation made of copper, silver, or gold. Additional protection was gained from a curtain of feathers hanging below the shield rim (see *Arrow Curtains*, **Low-Tech**, p. 104).

Both variants are listed here, but the lighter one should only be permitted if *Damage to Shields* (p. B484) is in use.

*Otlachimalli*: DB 2, \$45, 7 lbs., DR 2, HP 16, Cover DR 6.

*Cuauhchimalli*: DB 2, \$60, 14 lbs., DR 4, HP 20, Cover DR 9.

A feather shield curtain gives +1 DR against light ranged attacks to the thighs but the wielder has -1 Shield skill (\$80, 2 lbs.).

## Aztec Warrior

Common Name	Ethnic Name	Location	DR	Cost	Weight	Don	Notes
Tunic	<i>Maxtlatl</i>	torso	0	\$48	1.6	15	
Corselet	<i>Ichcahuipilli</i>	chest	3	\$263	15	23	
Body suit	<i>Tlahuiztli</i>	torso, arms, legs	0*	\$450	8.3	60	[1]
Helmet	<i>Cuacalalatli</i>	skull	4	\$30	7.2	6	
<b>TOTAL</b>	–	–	–	<b>\$791</b>	<b>32.1</b>	<b>104</b>	

### Notes

[1] +1 DR vs. *cutting* damage (see **Low-Tech**, *Light Leather*, p. 104).

## Aztec War Leader

Common Name	Ethnic Name	Location	DR	Cost	Weight	Don	Notes
Tunic	<i>Maxtlatl</i>	torso	0	\$240	1.6	15	
Corselet	<i>Ichcahuipilli</i>	chest	3	\$263	15	23	
Feathered suit	<i>Ehualt</i>	torso, arms, legs	0*	\$2,900	8	60	[1, 2]
Arm guards	<i>Matemecatli</i>	upper arms	3	\$10	3	10	[3, 4]
Bracers	<i>Matzopetzli</i>	wrists	3	\$10	3	10	[4, 5]
Greaves	<i>Cotzehuatl</i>	shins	3	\$50	15	15	[4, 6]
Sandals	<i>Cactli</i>	feet (bottom)	1	\$25	0.5	6	
Helmet	<i>Cuacalalatli</i>	head	4	\$75	7.8	8	[4, 7]
<b>TOTAL</b>	–	–	–	–	<b>\$3,573</b>	<b>53.9</b>	<b>147</b>

### Notes

[1] +1 DR vs. *cutting* damage (see *Light Leather*, **Low-Tech**, p. 104).

[2] +1 DR vs. light projectiles (see *Feathers*, **Low-Tech**, p. 104).

[3] If the arm is hit, on a roll of 5 on 1d, the armor is hit.

[4] Semi-ablative; loses 1 DR per 10 points of basic damage it resists (see p. B47).

[5] If the arm is hit, on a roll of 1-2 on 1d, the armor is hit.

[6] If the leg is hit, on a roll of 1-3 on 1d, the armor is hit.

[7] Gives Hard of Hearing (p. B138) and No Peripheral Vision (p. B151).

# SHOSHONE PLAINS INDIAN

*They have a kind of armor something like a coat of mail, which is formed by a great many folds of dressed antelope-skins, united by means of a mixture of glue and sand. With this they cover their own bodies and those of their horse, and find it impervious to arrows.*

– Lewis and Clark

The Shoshone or “Snake People” consist of several distinct groups all sharing a common language. They originally inhabited the Great Basin and Great Plains of North America. By the middle of the 18th century, other tribes such as the Blackfoot, Peeagan, Crow, Sioux, and Cheyenne, who were better armed, pushed the Shoshone south and west.

Before the introduction of the horse, all combat was conducted on foot. The first stage involved ritualistic singing and dancing followed by an exchange of arrows. This usually resulted in few casualties because of the use of large shields and body armor. Sometimes the battle ended at this stage, but more serious conflicts followed through with a pitched melee. The war chief, after a period of chants and songs, initiated a war cry and led his men into a charge. Hand-to-hand fighting mainly entailed the wielding of stone-headed maces and axes, with scalps being taken as war trophies.

In colder weather, Shoshone wore shirts (*kwasu*) and pants (*kusa*) made of soft leather or wool. In warmer weather, many wore nothing but a breech cloth. Most went about with no shoes, although moccasins were worn in cold weather and when on a long journey.

Shoshone warriors (Status 1) wore armor (*baki kwasu*) made of multiple layers of hide (*bigapeh*) joined together by

a mixture of glue and sand. Treat as heavy layered leather (**Low-Tech**, p. 105). Similar layered leather armor was worn by tribes from all over the American continent, including the Pawnee, Kutenai, Chinook, Mohawk, and Navajo.

Helmets (*baki dezowên*) seem to have been rare, but what evidence there is suggests that they may have been made of hide like the body armor and decorated with a crest of feathers (*si'arudona*).

After the introduction of firearms and the horse, warfare changed dramatically. Body armor was quickly phased out, shields became smaller, and the spear became the primary hand weapon.

## Shields

*Their shields were of osier or bark covered with one or many symbols; there are some made of very thick hide.*

– Joseph-Francois Lafitau

The Sioux called the pre-horse Shoshone “Big Shields” because of their full-height shields. Before the introduction of the horse, Shoshone shields (*gapêk*) were large and circular – reaching from neck to knee or even larger (some covered neck to ankle). They were designed to protect the shield bearer and a companion from arrows. These shields were made of thick rawhide, osier, or bark with a couple of hand grips on the back and a strap that was slung diagonally across the back and over the left shoulder to help support the weight. Treat as a large shield (**Low-Tech**, p. 116).

*Gapêk*: DB 3, \$90, 20 lbs., DR 4, HP 22, Cover DR 9.

## Shoshone Warrior

Common Name	Ethnic Name	Location	DR	Cost	Weight	Don	Notes
Shirt	<i>kwasu</i>	torso, arms	0*	\$72	2.4	23	[1]
Pants	<i>kusa</i>	legs	0*	\$48	1.6	15	[1]
Corselet	<i>baki kwasu</i>	chest	4	\$394	26.3	23	
Helmet	<i>baki dezowên</i>	skull	4	\$104	7	6	[2]
<b>TOTAL</b>	–	–	–	<b>\$618</b>	<b>37.3</b>	<b>67</b>	

## Notes

[1] +1 DR vs. cutting damage (see **Low-Tech**, *Light Leather*, p. 104).

[2] Helmet crest gives +1 SM for Intimidation (see **Low-Tech**, p. 113).

*. . . our shields were not so many, and some of our shields had to shelter two men . . . Their arrows went a long way and whizzed about us as balls do from guns. They were all tipped with a sharp, smooth, black stone [flint] which broke up when it struck anything. Our iron-headed arrows did not go through their shields, but stuck in them.*

– Saukamappee of the Peeagans



# TLINGIT X'IGAA KÁA

*They encase the entire body in a wooden or leather armor. They make a breastplate of wood, and an arrow-proof coat of thin flexible strips bound with string like a woman's stays. They wear helmets with curiously carved visors, and a kind of jacket made of thin laths bound together with sinews which makes it quite flexible, though so close as not to admit an arrow or dart.*

– Captain James Cook

Many tribes in the American Northwest – such as the Tlingit, Chukchi, Tsimshian, Eyak, and Haida – had a martial culture. Raids and feuds were endemic in this region, but warfare was pursued by individual clans rather than the tribe as a whole. The Tlingit were the largest and most aggressive. They were largely responsible for driving out Russian fur traders in the early 19th century.

War parties traveled in large war canoes, with the leader directing from the bow and an elderly matron steering from the stern. The heads of defeated warriors were taken as trophies, while women and children were captured as slaves.

A Tlingit warrior (Status 1) was called *x'igaa káa*. Armor (*sankeit*) was largely made of layered leather (**Low-Tech**, p. 105) or from wooden slats or rods that were lashed together into panels (*Wood*, **Low-Tech**, p. 106). It consisted of two sections – the first covered the chest and was suspended from the shoulders; the second hung from the waist to protect the abdomen and thighs, stopping at the knees. Armor was also made of pieces of horn or bone, laced into a lamellar construction. A few men sported cuirasses of hardened leather with Chinese and Japanese coins attached to them (see *Bezainting*, **Low-Tech**, p. 105). Sometimes wooden wrist guards (*jigei át*) were worn. Tomas de Suria, traveling along the northwest coast in 1791, described a complete wooden panoply in some detail:

*The breast and back armor are of a kind of coat of board two fingers wide, joined by thick cord which, with much union and equality, joins them. In this junction the thread takes an opposite direction, it being the case that even here the arrows cannot*

*pass through, much less in the thickest part of the boards. This breastplate is bound to the body by the back. They wear an apron of armor from the waist to the knees of the same character which must hinder their walking. Of the same material they cover the arm from shoulder to the elbow, on the legs they use some leggings which reach to the middle of the thigh, the hair on the inside . . . Before they put this armor on they put on a robe like that of a woman but heavier and thicker, with certain kinds of work.*

The robe that was worn underneath the armor, similar to the European *aketon*, was made of a few layers of elk-hide, which has been incorporated into the wooden armor stats in the table. Under this was a shirt (*k'oodás*) and pants (*x'uskeit*) made of moose-hide (light leather). Some tribes wore a hardened leather triangular guard on the back with the central point extending up to protect the back of the head and the wings laced to the wrists, enabling it to wrap around the wearer. It was a rigid construction, hinged at the shoulders and elbows, and made of wood and hide. Medium leather mittens (*tsáa'*) and boots (*x'wán*) covered the hands and feet.

Helmets (*shadaa*) were made of hardened leather or carved from chunks of wood. De Suria's description continues:

*They construct the helmet of various shapes; usually it is a piece of wood, very solid and thick, so much so that when I put it on it weighed the same as if it had been of iron. They always have a great figure in front, a young eagle or a kind of parrot, and to cover the face they lower from the helmet a piece of wood which surrounds this and hangs from some pieces of leather in the middle of the head to unite with one another one which comes up from the chin. They join at the nose, leaving a gap through which to see.*

These helmets sat on top of the head, and a wooden bevor protected the throat. Some helmets were fashioned in the shape of a bird or animal head, which would cover the warrior's head with him peering through the closed jaws of the animal.

## Tlingit Warrior

Common Name	Ethnic Name	Location	DR	Cost	Weight	Don	Notes
Shirt	<i>k'oodás</i>	torso, arms	0*	\$48	2.4	23	[1]
Pants	<i>x'uskeit</i>	legs	0*	\$48	1.6	15	[1]
Wood breastplate	<i>sankeit</i>	chest	3	\$75	22.5	23	[2]
Wood fauld	–	abdomen	3	\$25	7.5	8	[2, 3]
Leather head guard	–	head, shoulders (rear)	2*	\$40	4.8	12	
Mittens	<i>tsáa'</i>	hands	2*	\$10	1.2	3	[4, 5]
Boots	<i>x'wán</i>	feet, shins	2*	\$80	3	6	[4]
Wooden full helm	<i>shadaa</i>	head	3	\$30	9	9	[2, 6]
Leather pot helm	–	skull	4	\$105	7	6	
Bevor	–	neck	3	\$5	1.3	3	[2]
<b>TOTAL</b>	–	–	–	<b>\$466</b>	<b>60.3</b>	<b>108</b>	

### Notes

[1] +1 DR vs. *cutting* damage (see *Light Leather*, **Low-Tech**, p. 104).

[2] Semi-ablative; loses 1 DR per 10 points of basic damage it resists (see p. B47).

[3] -1 DX for actions involving the legs (see *Leg Armor and DX, Loadouts: Low-Tech Armor*, p. 4).

[4] -1 DR vs. *impaling*.

[5] Gives Ham Fisted 1 (p. B138).

[6] Gives Hard of Hearing (p. B138) and No Peripheral Vision (p. B151).

# EIDETIC MEMORY

## ANCIENT EGYPTIAN AND ROMAN ARMIES

BY DAVID L. PULVER

These two iconic armies from Earth's past can also be easily integrated into fantasy or Infinite worlds campaigns using the *GURPS Mass Combat* system.

*Mass Combat* shows off two great armies.

## EGYPTIAN NEW KINGDOM (TL1)

The Egyptian New Kingdom was an empire that held sway over ancient Egypt and surrounding lands in Africa and the Middle East from about 1,500 B.C. to 1,000 B.C. Its army was a late TL1 fighting force based around a mix of infantry and chariots. The New Kingdom included the reigns of famous pharaohs such as Thutmose I, Seti I, Hatshepsut, Tutankhamun, and Ramesses II. It saw the Egyptian empire reach the apex of its political and military power. Numerous battles were fought against its African neighbors and old enemies the Libyans and Nubians, as well as powerful Middle Eastern kingdoms such as the Mitanni and Hittites. Later, the New Kingdom struggled for survival against invading "Sea Peoples" from Europe (perhaps ancestors of the Biblical Philistines) and the powerful Assyrians and Babylonians.

The earlier Middle Kingdom of Egypt had developed a decent infantry force, but it used mainly conscript and levy troops. The New Kingdom army was a more structured force, incorporating hard lessons regarding professionalism and mobility learned after Egypt's period of domination under the warlike Hyksos. The New Kingdom's need to hold far-flung imperial possessions throughout the Middle East saw its conscript army replaced by warrior nobles, professional garrison troops, and foreign mercenaries. Infantry were deployed in formations organized by weapon type, in large square blocks of archers, swordsmen, and spearmen, supported by a powerful force of light chariots.

The GM could use this army in a *GURPS Egypt* campaign set in the New Kingdom era. It can also be part of a military adventure in the Infinite Worlds setting in an Ancient

Egypt-inspired parallel. Pseudo-Egyptian armies of similar compositions are also a staple of swords-and-sorcery "desert kingdom" forces, such as the sinister Stygian armies of the Hyborian Age that Conan and his allies sometimes faced. (Just add elements of magician-priests and mummies.) The New Kingdom Army could even be used as model for any TL1 force that space travelers might encounter while visiting a TL1 planet – indeed, in a von Däniken-esque space-fantasy campaign in which Egyptians had contact with extraterrestrials, they might be the low-tech remnants of abducted Egyptians whose culture (without external influence) has remained largely static for thousands of years!

### THE ARMY

Statistics are given for a corps-sized force of 4,100 troops, suitable for a punitive expedition or frontier battle. It would be organized into companies of 200-250 men or chariots. A larger force might be deployed in major campaign with the pharaoh in command – just use two or three times as many elements.

### *New Kingdom War Chariots*

#### Light Chariots

Egyptian chariots are the army's elite force. The chariots of Egypt are lighter and more agile than those used by rival states such as the Hittites. They're built for skirmishing rather than shock action, providing fire support to the infantry and countering enemy mobile forces.

Each chariot is pulled by a pair of light horses and carries a two-man crew: a driver (with a whip) and an archer (in command). The archer was a warrior noble, skilled with a powerful composite bow as his primary weapon. He'd also have couple of light spears and maybe a shield and sword, for close combat. The archer wore leather or occasionally scale armor; the chariot horses occasionally had light head or chest armor as well. Tactically, the chariots were organized into troops of 10, company-sized squadrons of 25 or 50, and larger units of 250. Egyptian chariots were property of the state and belonged to the pharaoh's army.

*TS: 4. WT: 4.*

*Classes: Cv, F. Mobility: Mounted.*

*Quality: Good equipment; Good troops.*

*Features: None.*

*Cost: \$250K to raise; \$34K to maintain.*

A 4,100-man force might have 750 light chariots: 75 elements with TS 300.

## *New Kingdom Infantry*

### **Medium Infantry**

Egyptian armies included a sizable block of soldiers who fought with sword, axe, or spear in close order. They used medium or small shields for protection. Some wielded the khopesh, an iconic Egyptian sword of the New Kingdom, with its distinctive question mark-shaped blade (see *GURPS Low-Tech*, p. 57), which could hook a foe's weapon. Others had axes or short spears (often carrying one of each). Due to the warm climate and cost of metal in the Bronze Age, most Egyptian foot soldiers had light armor – just linen or leather chest protection. Otherwise, they wore a kilt, headdress, and sandals.

*TS: 3. WT: 1.*

*Classes: None. Mobility: Foot.*

*Quality: Basic equipment; Average troops.*

*Features: None.*

*Cost: \$30K to raise; \$6K to maintain.*

A 4,100-man force might have 1,500 infantry: 150 elements with TS 450.

## *New Kingdom Royal Guards*

### **Medium Infantry**

These are infantry who guard the pharaoh or other royalty. They are armed as above with a khopesh or axe and a shield, but upgrade body armor from leather to scale. Some of the more martial pharaohs were not adverse to personally wading into battle, and the royal guard would accompany them (or escort their chariots, if they fought mounted).

*TS: 6. WT: 1.*

*Classes: None. Mobility: Foot.*

*Quality: Good equipment; Good troops.*

*Features: None.*

*Cost: \$75K to raise; \$10.2K to maintain.*

A force of 4,100 men might have 100 royal guards: 10 elements with TS 60.

*The Egyptian empire reached the apex of its power during the New Kingdom.*

## *New Kingdom Archers*

### **Bowmen**

Egyptians were decent archers, but the best composite bows were only affordable to the aristocratic charioteers. The bulk of archers had regular bows and arrows, although they were disciplined troops who fired in volleys. They fought on foot and eschewed armor; in the warm climate, Egyptian archers wore only a linen kilt and sandals.

*TS: 2. WT: 1.*

*Classes: F. Mobility: Foot.*

*Quality: Basic equipment; Average troops.*

*Features: None.*

*Cost: \$40K to raise; \$8K to maintain.*

A corps of 4,100 men might have 500 archers: 50 elements with TS 100.

## **BATTLE OF KADESH (c. 1274 B.C.)**

The first battle in the world for which detailed historical documentation exists, this was a struggle between two great 13th-century B.C. empires – the Egyptians and the Hittites. Located in what is now Syria on the frontiers between the two empires (over a thousand miles march from the Egyptian capital), Kadesh was a prosperous walled city. Initially an Egyptian vassal state, it shifted allegiance to the Hittites. To regain control, Pharaoh Ramesses II led a large force of chariots and infantry on a lengthy northern campaign against his Hittite rival Muwatellish.

In 1274, several thousand Egyptian met a similar number of Hittite soldiers on the plains outside Kadesh. The Hittites were approximately similar in composition to the Egyptian forces, but with weaker infantry and heavier

chariot units. Kadesh was the largest chariot battle in recorded history (as well as the first). The Hittites won the initial reconnaissance contest, using spies to deceive the Egyptian pharaoh and set up a surprise attack. However, Ramesses II turned the battle around thanks to hard fighting and timely arrival of reinforcements. The result was a bloody stalemate in which both sides claimed victory. The Hittites held Kadesh, but the pace of their expansion slowed. Eventually, a historic peace treaty was signed between both empires.

Kadesh's historical interest as the "first documented battle" and the chance an altered ahistorical decisive outcome could alter the time line in favor of a greater Hittite or greater Egyptian empire makes it a good target for meddling by parachronic or time travelers.

## NEW KINGDOM ARMY ROSTER

This represents a force of 4,100 troops. It would be accompanied by a logistic force of several hundred camp followers.

*Elements:* 335. *Cost:* \$27,000,000 to raise, \$4,152,000 to maintain.

<i>Elements</i>	<i>Total TS</i>	<i>Classes</i>	<i>Mobility</i>	<i>Features</i>
75 war chariot (light chariots)	300	Cv, F	Mounted	–
150 infantry (medium infantry)	450	–	Foot	–
50 archers (bowmen)	100	F	Foot	–
50 mercenary skirmishers (light infantry)	100	Rec	Foot	Mercenary
10 royal guards (medium infantry)	60	–	Foot	–
<i>Artillery TS</i>	0			
<i>C3I TS</i>	0			
<i>Cavalry TS</i>	300			
<i>Fire TS</i>	400			
<i>Recon TS</i>	100			
<b><i>Force TS</i></b>	<b>1,010</b>			

## Mercenary Light Infantry

### Light Infantry

An Egyptian army usually included a few hundred unarmored irregulars who fought in loose swarms armed with bow, light spear, or javelins. Most were Nubian (African), Syrian, Libyan, Bedouin, or Palestinian mercenaries; many may have been former prisoners of war who opted to enlist in the pharaoh's armies rather than return home. They were usually used for scouting, foraging, and operations in rough terrain.

*TS:* 2. *WT:* 1.

*Classes:* Rec. *Mobility:* Foot.

*Quality:* Basic equipment; Average troops.

*Features:* Mercenary.

*Cost:* \$40K to raise; \$8K to maintain.

A corps of 4,100 men might have 500 mercenary light infantry: 50 elements with TS 100.

# EARLY IMPERIAL ROME (TL2)

The armies of Imperial Rome need little introduction – for several centuries, their professional legions were the most effective and disciplined fighting force in the known world. These descriptions are based on the legions of the early Imperial period (the Principate) after Augustus reorganized the legions – that is, about 25 A.D. to 100 A.D. However, they're broadly accurate for legionary forces in the period 100 B.C. to 100 A.D. (a major change being the lack of organized heavy auxiliary troops in earlier periods).

These troops can be used in a *GURPS Imperial Rome* campaign or in historical parallels that are based on ancient Rome in the *GURPS Infinite Worlds* setting. They are also reasonably appropriate for *GURPS Fantasy*'s slightly later period Roma Arcana setting; the troop statistics won't change that much in Roma Arcana, aside from some minor details of organization. With some names altered, the Roman forces can also be used for any TL2 fantasy empire with regular troops or for regressed human colonies in a space-opera setting.

## The Legions

The core of the Roman army, a legion is a brigade-sized unit of about 4,400-5,000 troops plus about 1,000-1,200 noncombatants (the logistic force). During the first three centuries of the empire, the Roman army contained 25 to 34 legions, each with its own name and number, e.g., legio VI Ferrata. Legions were recruited from Roman citizens (most coming from rural Italy during the early empire).

A full-strength legion (commanded by a legate of senatorial rank) was organized into 10 *cohorts* each with about 480 troops, each cohort under a military tribune; the first cohort's commander was the legion's official second-in-command. Cohorts were also often used for independent missions or outlying garrisons. Each cohort was subdivided into six *centuries* (each under a centurion), with a fighting strength of 80 men. The senior centurion of the first cohort (*Primus pilum*) had high rank, often being the legion's most experienced officer. The smallest subunits were squads of six to 10 men who shared a tent and fought together. (Late in the first century A.D., the first cohort in each legion was reorganized with two double-strength centuries.)

The legion probably spent as much or more time digging and building as they did fighting. A legion on the march always constructed a fortified camp (equivalent to improvised fortifications) each night. They also built more permanent forts, bridges, and the famous Roman roads. All legions contained soldiers who were also artisans, builders, or surveyors.

Although Rome rarely deployed artillery on the battlefield, each legion included a force of light bolt throwers for sieges and camp defense. A legion also had a small cavalry force (120 or so riders) as scouts as messengers.

A major campaign might have multiple legions serving together, while a minor incident might see only a cohort or two, or a century-sized unit, being deployed. (Rome also had fleets and marines – organized like legionary infantry – but these are beyond this article's scope.)

## Auxilia

Equally important were the auxiliary forces Rome recruited from noncitizens in the provinces or allied kingdoms. During the prior Republican and Civil War eras, auxiliary units were irregular barbarian troops employed on an ad-hoc basis and retaining their original organizations – slingers from the Balearic isles, Gaulic cavalry, etc.

Under Augustus and succeeding emperors, the auxiliary forces were reorganized. They were still recruited (via a mix of volunteer service and conscription) mainly from noncitizens, but they were given Roman-style organization and regular salaries. They were expanded in size until their numbers approximately equaled that of the legions. Auxiliary soldiers were paid less than legions, but long service resulted in a grant of Roman citizenship.

Auxilia were grouped into regiments of 400-500 (*quingennaria*) or 750-1,000 (*milliaria*) either as infantry *cohortes*, cavalry *alae* (“wings”), or mixed *cohortes equitatae*. They might be deployed independently or attached in part or full to a legion. They were commanded by a *praefectus cohortis* or *praefectus alae* (Roman or a tribal aristocrat). A cavalry *ala* was subdivided into 16-24 *turmae* of 30-40 riders. An infantry cohort was subdivided into six centuries like that of a legion’s cohort. A mixed force would have six centuries of 80 men and perhaps four *turmae* of cavalry.

*For specifics on armor worn by individuals in the Roman army, see GURPS Loadouts: Low-Tech Armor.*

## THE ARMY

Statistics are given for a single early Imperial legion and supporting auxiliaries.

### Legionaries

#### Heavy Infantry

The strength of Rome was its heavy infantry. Legionaries were highly drilled professional soldiers who fought in close order. In this period they wore open helmets and chainmail shirts (*lorica hamata*) and were protected by large rectangular shields (*scutum*). They were armed with a short sword (*gladius*), a dagger (*pugio*), and the *pilum*, a heavy javelin whose metal shank bent on impact, rendering a struck enemy shield unwieldy and preventing the weapon from being thrown back (see *GURPS Low-Tech*, p. 73).

*TS: 8. WT: 1.*

*Classes: None. Mobility: Foot.*

*Quality: Good equipment; Good troops.*

*Features: None.*

*Cost: \$100K to raise; \$13.6K to maintain.*

A cohort of 480 legionaries consists of 48 elements with TS 384.

## Veteran Legionaries

#### Heavy Infantry

Veteran legions included a high proportion of crack troops and long-service veterans, often gathered into its first two or three cohorts to serve as a striking arm. They are identical to the above troops, but are classed as Elite rather than Good quality.

*TS: 10. WT: 1.*

*Classes: None. Mobility: Foot.*

*Quality: Good equipment; Elite troops.*

*Features: None.*

*Cost: \$140K to raise; \$15.2K to maintain.*

A cohort of 480 legionary veterans consists of 48 elements with TS 480.

### Regular Auxiliary Infantry

#### Heavy Infantry

These were similar to legionary soldiers, but recruited largely from noncitizens. They wore helmets and chainmail or scale shirts and had oval rather than square shields. They carried a couple of javelins rather than the specialized *pilum*, but used the same *gladius* (short sword) and *pugio* (dagger). Auxiliary infantry often garrisoned border forts or outposts; in large battles, they tended to serve on the flanks. Many were raised from Ilyria or Dalmatia (in the Balkans), Iberia (Spain) or Galatia (what is now Turkey).

*TS: 8. WT: 1.*

*Classes: None. Mobility: Foot.*

*Quality: Good equipment; Good troops.*

*Features: None.*

*Cost: \$100K to raise; \$13.6K to maintain.*

A cohort of 480 regular auxilia consists of 48 elements with TS 384.

### Equites Alares or Equites Legionis

#### Light Cavalry

Regular Roman auxiliary cavalry were recruited from tribes or provinces with a tradition of horsemanship. In the early empire, more than half of the cavalry were Gauls. The *alares* wore a helmet, a chainmail or scale cuirass, and carried an oval medium shield. They were armed with a broadsword (*spatha*), dagger, and used a thrusting spear. They rode unarmored horses and did not have stirrups. (Later in the empire, heavier cavalry and horse archers were also recruited.)

Besides the independent cavalry units, a legion had a similar cavalry detachment (120 *equites legionis*) for scouting and messenger duties, recruited from good riders among the legionaries.

*TS: 5. WT: 2.*

*Classes: Cv, Rec. Mobility: Mounted.*

*Quality: Fine equipment; Good troops.*

*Features: None.*

*Cost: \$300K to raise; \$44K to maintain.*

An *ala* of 480 men had 48 elements with TS 240. A legion’s integral cavalry or mixed *cohortes equitatae* unit had some 120 riders (12 elements) of cavalry with TS 60.

## ROMAN ARMY ROSTER

This roster details the troop strength of one legion (11 cohorts, three of them veteran), an ala of equites alares, a cohort of regular auxiliary infantry, a cohort of Syrian archers, and an ala of Numidian cavalry.

*Elements:* 742. *Cost:* \$80,044,000 to raise, \$10,763,200 to maintain.

<i>Elements</i>	<i>Total TS</i>	<i>Classes</i>	<i>Mobility</i>	<i>Features</i>
144 Veteran Legionary (heavy infantry)	1,440	–	Foot	–
384 Legionary (heavy infantry)	2,688	–	Foot	–
48 Regular Auxiliary Infantry	384	–	Foot	–
12 Equites Legionis (light cavalry)	60	Cv, Rec	Mounted	–
48 Equites Alares (light cavalry)	240	Cv, Rec	Mounted	–
48 Equites Numidarum (light cavalry)	96	Cv, Rec	Mounted	Mercenary
48 Sagittarii (bowmen)	144	F	Foot	Mercenary
10 Legion Artillery	(20)	Art	Foot	–
<i>Artillery TS</i>	(20)*			
<i>Cavalry TS</i>	396			
<i>Fire TS</i>	144			
<i>Recon TS</i>	396			
<b><i>Force TS</i></b>	<b>5,054</b>			

\* Counts as only 2 TS for Force TS

To represent the legion's integral engineering talent, the GM may wish to allow up to 10% of the heavy infantry to convert to an equivalent number and quality of miner elements in any siege situation.

### Equites Numidarum (Numidian Cavalry)

#### Light Cavalry

Much of Rome's light cavalry were "Numidians" from the regions now referred to as Algeria and Morocco. They were called *equites Maurorum* or *equites Numidarum* (Moorish or Numidian cavalry). They were irregular forces that rode bareback and had no body armor and only a light shield. They carried quivers of multiple javelins. Being mercenaries rather than regular auxiliaries, they did not always serve for the same length of time in the army, but some experienced Numidian forces would be Good rather than Average.

*TS:* 2. *WT:* 2.

*Classes:* Cv, Rec. *Mobility:* Mounted.

*Quality:* Basic equipment; Average troops.

*Features:* Mercenary.

*Cost:* \$100K to raise; \$20K to maintain.

An ala of 480 Numidians consists of 48 elements with TS 96.

### Sagittarii (Auxiliary Archers)

#### Bowmen

In the Republican period, most auxiliary archers were Cretans. By the Imperial period, bowmen from Syria and Thrace were in the majority. Syrians wore a scale cuirass and conical helmets, and used a powerful composite bow. (In addition to bowmen, slingers from the Balearic Isles off Spain – light infantry – were widely used in the Republican period, but seem to have been less common during the early Imperial era.)

*TS:* 3. *WT:* 1.

*Classes:* F. *Mobility:* Foot.

*Quality:* Good equipment; Average troops.

*Features:* Mercenary.

*Cost:* \$60K to raise; \$12K to maintain

A cohort of 480 men consists of 48 elements with TS 1,440.

### Legion Artillery

#### Light Artillery

A mix of stone-throwing ballistae or onager (one per cohort) and very light bolt-throwing carroballistae (one per century).

*TS:* (2). *WT:* 1.

*Classes:* Art. *Mobility:* Foot.

*Quality:* Good equipment; Good troops.

*Features:* None.

*Cost:* \$100K to raise; \$13.6K to maintain.

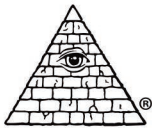
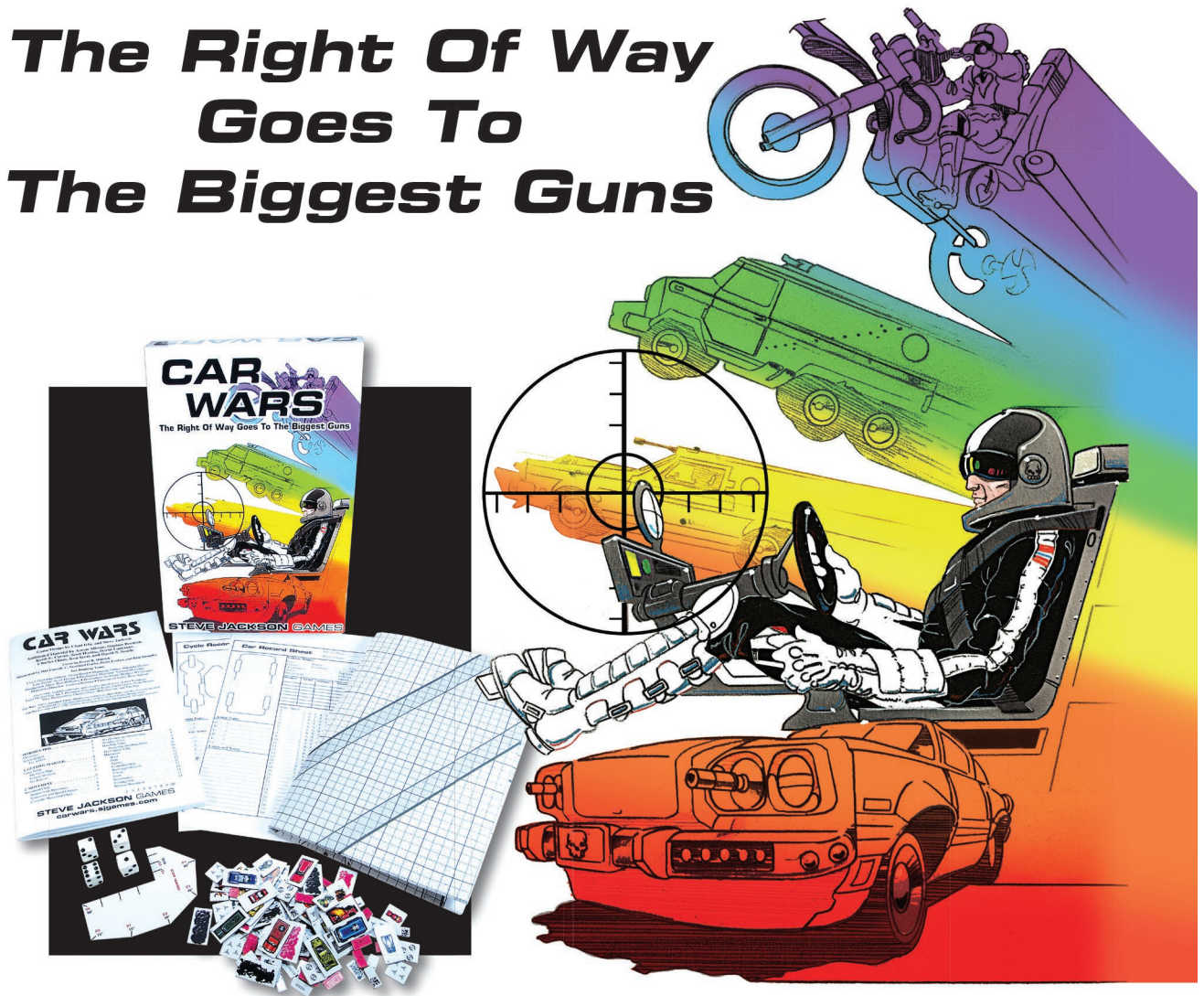
Ten elements have TS (20).

## ABOUT THE COLUMNIST

David L. Pulver is a Canadian freelance author. An avid science-fiction fan, he began roleplaying in junior high with the newly released *Basic Dungeons & Dragons*. Upon graduating from university, he decided to become a game designer. Since then, David has written over 70 roleplaying game books, and he has worked as a staff writer, editor, and line developer for Steve Jackson Games and Guardians of Order. He is best known for creating *Transhuman Space*, co-authoring the *Big Eyes, Small Mouth* anime RPG, and writing countless *GURPS* books, including the *GURPS Basic Set, Fourth Edition*, *GURPS Ultra-Tech*, and the *GURPS Spaceships* series.

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# ON TARGET

BY DOUGLAS H. COLE

*Having mastered the task of holding the rifle steady, the soldier must align the rifle with the target in exactly the same way for each firing. The firer is the final judge as to where his eye is focused.*

– *ArmyStudyGuide.com* (not affiliated with the U.S. Army)

When engaging targets with a gun, taking time to aim before firing results in far better outcomes. In **GURPS**, the current rules are easy and deterministic. An Aim is followed by any variety of attack, and you collect your weapon's Acc

on your shot. No fuss, no muss, and repeated Aim gets you a bigger bonus.

In real life, shooters can experience the satisfaction of obtaining, in an instant, *precisely* the desired sight picture. Perhaps more frequently, they spend many seconds lining up a shot, only to have the aimpoint wander all over the target, never *quite* good enough.

These suggestions add more randomness and character skill to Aim maneuvers. They assume time spent choosing an option and rolling dice is more fun than simply stating, "I Aim."

## RETARGETING THE AIM MANEUVER

Using the rules as presented in the **Basic Set**, after a turn of Aim, you get your Acc bonus, whether shooting at an automobile at seven yards or a zombie's eye at 700. The following options can add variability and challenge to Aim and Accuracy. They can be combined as desired.

*Lazar: Mr. Bond, bullets do not kill.  
It is the finger that pulls the trigger.*

*James Bond: Exactly. I am now aiming  
precisely at your groin. So speak or forever  
hold your piece.*

– *The Man with the Golden Gun*

### AIM AS A SKILL ROLL

Instead of *automatically* getting an Accuracy bonus by declaring the Aim maneuver, aiming *successfully* requires a DX-based Guns roll, subject to penalties impacting the ability to line up a shot, including range, target size, lighting and darkness, unstable surfaces, target movement, and wind and weather conditions.

There is no penalty beyond a wasted turn for failing an Aiming roll. See *Wobbly Aim* (p. 28) for an alternate take, and *Critical Success and Critical Failure* (below) for options on both extremes.

#### *Aim Small, Miss Small*

The options (p. 25) used with an Aiming skill roll include some substantial boosts for giving up defenses and movement. As such, they are balanced by penalties to Aiming rolls: Apply

*half* the usual range, target size, and hit location penalties for a shot, rounding to nearest whole number.

#### *Sights and Skill Modifiers*

All abilities that add to a shooter's *skill* add to the Aiming roll as well, including gear such as reflex and laser sights.

Telescopic sights, which constrict field of view, *penalize* the Aiming roll in equal measure to the Acc they will add on a success. Using a scope inflicts Tunnel Vision (p. B151) as well.

#### *Bracing*

Adding an extra hand to a pistol, or another point of stable contact to a longarm, counts as bracing the weapon (p. B364). You may only claim the bracing bonus *while moving* if the bracing moves with you: Two hands on a pistol, a two- or three-point sling, or a dedicated weapon mount (such as the *Articulated Weapon Harness*, **GURPS Ultra-Tech**, pp. 150-151) qualify and allow movement.

#### *Critical Success and Critical Failure*

Critical success on an Aiming roll provides a bonus equal to Acc+2, or 2× the weapon's inherent Acc – whichever is *greater*. The *weapon's* Acc does *not* include aiming aids, but *does* include items like match bullets, which increase *mechanical* accuracy. Alternately, the GM may instead allow a critical success to result in the Aim being a free action. The spike in Accuracy that results from a critical success only lasts for the *next attack*.

A critical failure makes the weapon Unready.

See *Critically Awesome, Critically Awful*, p. 25, for more interesting options for both cases.



## AIMING OPTIONS

Similar to the various flavors of attack maneuvers, there can be a continuum of options for Aiming depending on how much situational awareness is to be retained. All listed effects are cumulative. The bonuses and penalties for All-Out and Committed Aim mimic the effects of temporarily obtaining something like the Single-Minded advantage (p. B85).

### All-Out Aim

The shooter applies total focus to nothing but his weapon and his target, actively tuning out distractions. It is a good choice for sniping, hunting, and target shooting.

- +4 to Aiming rolls.
- +2 to Aiming rolls if your weapon is *braced* (p. 24).
- You have Tunnel Vision (p. B151).
- Roll at Per-5 to notice distractions; you must make a Will roll to *stop* aiming.

*Movement:* None.

*Active Defense:* You may make no active defense at all.

### Committed Aim

Used for room clearing or other activities where other sightlines are covered by aggressive and skilled teammates. Some basic situational awareness is retained.

- +2 to Aiming rolls.
- +1 to Aiming rolls if your weapon is *braced* (p. 24).
- You have Tunnel Vision (p. B151).
- Roll at Per-2 to notice distractions; if you wish to stop aiming, roll vs. Will+2.

*Movement:* Step or two steps. A second step gives a penalty of -2 or the weapon's Bulk, whichever is worse.

*Active Defense:* The attacker may dodge at -2, he may not parry or block. Any active defense spoils your aim.

### Aim

This option trades focus for mobility and awareness. It is often used for "both eyes open" shooting, especially with a reflex sight.

- Aiming rolls are at full skill, but suffer *double* penalty for telescopic sights.
- Perception and arc of vision are unaffected.

*Movement:* Up to half Move. Forward movement up to two steps gives a penalty of -4 or *twice* the weapon's Bulk penalty, whichever is worse. Movement of up to Move/2 is at -8 or -4xBulk, whichever is worse.

*Active Defense:* Dodge. Any active defense spoils your aim.

## ACCURACY

If the Aim roll is successful, you add the weapon's Accuracy (including any gear that usually adds to Acc, such as telescopic sights, match bullets, and rangefinders) to the next shot.

### Fixed Accuracy

If using Aiming rolls, but not *Variable Accuracy* (below), add Acc+1 to skill for the attack. The +1 is to give a reward for the delayed gratification inherent in rolling for Aim, and to ensure even Acc 0 weapons benefit to some degree (though see *Crappy Guns*, p. 28).

### Variable Accuracy

To simulate variable sight picture, every time the rules call for adding Acc to the shot, substitute a die roll: 1d-4+Acc (minimum 1). This will provide an effective 10x variability in the quality of the initial sight picture, but the upper limit is equivalent to the Acc achievable by aiming for multiple seconds (the maximum roll is Acc+2). Shots that would normally require maximum Acc could now take many seconds to line up – this happens in the real world all the time!

## CRITICALLY AWESOME, CRITICALLY AWFUL

Instead of the options listed for a critical success or critical failure, roll 1d and consult the appropriate table below.

### Aiming Critical Success Table

- 1 – Your bonus is Acc+2, even if you normally use *Variable Accuracy* (above).
- 2 – Make an Accuracy roll as described under *Variable Accuracy*, but double the result!
- 3 – You gain a bonus equal to double your weapon's base Acc statistic.
- 4 – Your Aim is treated as a free action. You may immediately take any legal Attack maneuver to shoot.
- 5 – You do not need to roll *next* turn to maintain aim for a follow-on shot; whatever you roll for Accuracy, it lasts for two attacks instead of only one.
- 6 – If you use a 1d random roll to see if you hit a vital area in the torso or head, you improve your location on a 1-3 instead of just a 1. If not, pick a hit location within the current targeted area up to -3 more difficult than you incorporated in your Aiming roll.

### Aiming Critical Failure Table

- 1 – You mash the trigger; take a shot at whatever you're aiming at. If you haven't yet acquired a target, you waste a shot!
- 2 – Your weapon needs adjustment; you cannot aim or shoot until you Ready it again.
- 3 – If there's any other target in the general area, you aim at that instead. Make a vision roll to realize you're aiming at the wrong target!
- 4 – You become fixated on your target and are at -2 to Per and Dodge this turn. (Reroll this if you took All-Out Aim.)
- 5 – If you have adjustable sights, they get bumped out of alignment. The GM will roll 1d and subtract that from your weapon's Accuracy rolls until you have time to sight in.
- 6 – You are flustered! You suffer -4 to Guns until the end of your next turn.

## Holding Aim

Taking repeated Aim maneuvers *after* an initial success is called *holding aim*. If using fixed Accuracy (p. 25), each repeated successful Aiming roll gives +1 to Acc, to a limit of +2. If using variable Accuracy (p. 25), successful *repeated* rolls allows the *substitution* of a better roll for a worse one; if the new Accuracy roll is lower than your current bonus, the old result is retained.

In both cases, a failed roll gets -1, while a critical failure spoils your aim completely (or prompts a roll on the *Aiming Critical Failure Table*, p. 25).

## Minute of Angle

It is suggested that the GM enforce the *Minute of Angle* rule (*GURPS Tactical Shooting*, p. 32) and limit maximum possible skill to  $22 + 2 \times \text{Acc}$ . This ensures that a lucky Accuracy roll cannot exceed the mechanical precision of the firearm.

## AIMING IN COMBAT

Certain common situations will need to be addressed when using the Aiming roll or variable Accuracy bonus.

### Follow-up Shots

Aim tends to jump around as you fire. If you select a regular Attack to shoot, any aiming bonuses are lost after your first attack is made (including the second attack in a rapid strike). All-Out Attack (Determined) (or the variant ranged All-Out and Committed Attacks, p. 25) allows you to retain half of your Acc on the *same* target. If your weapon is *braced*, you may apply full Acc if you are making single shots, or with any RoF from a weapon in a fixed mount.

To simulate skilled shooters being better able to execute follow-up shots, allow an Aiming roll as a free action (use whatever modifiers are appropriate for the attack maneuver being taken), and only apply the Acc bonus if it's successful.

## Posture

It is generally regarded that offhand shooting (shooting from standing) is more difficult and less accurate than kneeling or prone shooting, but the **Basic Set** rules exempt ranged attacks from posture penalties. Optionally, standing and crouching give -2 to aiming and shooting; kneeling, sitting, and lying face-up give -1; and lying face down (prone) incurs no penalty.

## Precision Aiming

The rules in this article work best on the one-second time scale of **GURPS** combat. If using these rules, Precision Aiming can be used *as-is*, but should probably be discarded.

## Rapid Fire

A successful aim and the Accuracy effect roll applies to all *shots* fired on the next *attack* directed at the same hit location. If using the more restrictive rules from *Tactical Shooting*, all of the caveats in *Aimed Shooting* (*Tactical Shooting*, p. 14) apply, including those for follow-up shots.

## Wait and Aim

Wait can be used to maintain a careful watch for targets along a narrow fire lane. There are two options.

*Wait and Aim:* The shooter selects an area to watch, and if a potential target enters that area, the Wait triggers and the gunman gets an Aim roll, at -2 per yard watched. If successful, the shooter has locked on to the new target.

*Wait and Shoot:* The shooter can Aim (and get the Acc bonus) down a single line of fire one yard wide. If *any* target crosses this line, the attacker can use Opportunity Fire (at -2 to hit) to shoot instantly.

The first option is used to keep watch on a wide area, or take a bit of time for target identification before shooting.

## RANGED ATTACK MANEUVERS

Taking All-Out Attack to claim the bonus for aimed fire may be realistic, but the loss in defenses provides a huge disincentive to use this option *in play*, leading to behavior even farther away from what the realistic rules are trying to simulate. The presence of Committed Aim fairly begs for a ranged option for Committed Attack.

*Tactical Shooting* stipulates All-Out Attack (Determined) to claim the bonus for sighted or aimed shooting, but a Committed Attack could be permitted for sighted shooting.

### All-Out Attack (Ranged)

Complete focus, compatible with All-Out Aim (p. 25).

- Make a single attack at +2 to hit (this is a change from the **Basic Set**).
- You have Tunnel Vision, and any Per rolls are at -5.

*Movement:* None (this is a change from the **Basic Set**).  
*Active Defense:* You may make no active defense *at all*.

### Committed Attack (Ranged)

A Committed Attack used with ranged weapons, the shooter dedicates *most* of his concentration on the attack, but reserves some defensive and movement capability.

- Make a single attack at +1 to hit.
- You have Tunnel Vision, and any Per rolls are at -2.

*Movement:* Step or *two* steps. A second step gives a penalty of -1 or half Bulk, whichever is worse. Attacks can be made before, during, or after the steps.

*Active Defense:* All active defenses are at -2, plus any facing-related penalties.

The second option will attack anything that crosses the line – risking a friendly fire incident – but allows aimed fire to interdict movement (such as covering a door).

## CHARACTER TRAITS

Some abilities are modified when using the rules presented here.

### *Altered Time Rate*

see pp. B38-39

Given two maneuvers on your turn, you may freely select any of the variant Aim and Attack choices.

### *Breath-Holding*

see p. B41

Characters with one or more levels of Breath-Holding get +1 to All-Out Aim and All-Out Attack. Other flavors of Aim and Attack are unaffected.

### *Deadeye*

see *Tactical Shooting*, p. 38

This perk grants +1 to Aiming rolls for each level of Deadeye; the normal maximum of three levels applies. The bonus is especially useful for overcoming the penalty resulting from aiming with a telescopic sight.

### *Enhanced Tracking*

see p. B53

Each level of this advantage gives you a separate Aiming roll at a target of your choosing. Success applies Acc to each one (use a separate roll for each with variable Accuracy) *if* you can *simultaneously* train sights on both (such as with multiple weapons). If you can aim at two targets, you still suffer Rapid Strike penalties for changing targets with a single weapon.

For multi-weapon use, Enhanced Tracking and Extra Attack combine well.

## *Gunslinger*

see p. B58

Shooters with Gunslinger (p. B58) don't have to make Aiming rolls when firing *single shots* with a one-handed weapon. They *do*, however, have to roll for Accuracy every time they change targets (including deliberately targeting a different hit location on the same foe). If claiming the half-Acc bonus when using a longarm, use  $1d-4+Acc/2$  (rounded up) and roll that; you get the maximum possible Accuracy roll if you actually take an Aim maneuver.

Gunslinger does not exempt you from *all* Aiming rolls. Firing multiple shots with a one-handed weapon or trying to achieve the full Accuracy potential for a longarm requires an Aiming roll.

*We both have guns. We aim, we fire, you die.*

– *The Kid, The Quick and the Dead*

## *Telescopic Vision*

see p. 92

This advantage boosts Aiming and Accuracy rolls on attacks. The level of Telescopic Vision is still applied as a penalty to the Aiming roll, which means high magnification on close-in targets is still more difficult. This penalty *replaces* the “must Aim for as many seconds as the bonus” part of the advantage description. If the Aiming roll is successful and you are using variable Accuracy, the Accuracy roll grants a bonus of  $1d-4 +$  Telescopic Vision.

This ability doesn't normally stack with technological aids, but Cosmic (+50%) will fix that right up for you.

# OPTIONAL RULES

These ideas are either more complex than usual, may increase the uncertainty around aiming, or apply the above rules to bows, spells, and powers.

## AIM AS ATTACK

The Aim maneuver can instead be treated as an attack, much like a Feint. This allows skilled shooters to aim and fire in one turn, and opens up a few other options as well.

### *All-Out Attack (Double)*

The shooter can select this option and select Aim followed by Attack (not All-Out or Committed Aim, and no bonuses for Determined on the shot). If the aim fails, the option to not fire on the second shot is retained. This is still an All-Out Attack and thus suffers the same movement and defensive restrictions.

### *Extra Attack*

If you have this trait, you may aim and fire in one turn, choosing any combination of Aim and Attack maneuvers you like. However, you suffer the *worst* repercussions from both choices when it comes to movement, Per, and defenses.

Multi-strike is *not* required to Aim and shoot using Extra Attack.

### *Quick Aim*

Average

*Default:* Guns-6.

*Prerequisite:* Guns; cannot exceed Guns.

This technique allows a shooter to attempt to aim (All-Out Aim, Committed Aim, or Aim) as a free action by rolling vs. Quick Aim; this roll is *always* penalized by Bulk.

Failure grants no Aim bonus, and if you still try to fire on that turn, it's at -6 + the margin of failure.

Gunslinger halves *both* these penalties.

## Rapid Strike, Quick Shot, and Quick Aim

Quick Shot (*Tactical Shooting*, p. 45) is used to buy off the penalty for using Ranged Rapid Strike to shoot two targets in one second, including firing at two hit locations on a single target. Ranged Rapid Strike and Quick Aim increment separately at -6 per additional use. To make one Quick Aim is at -6, a second is at -12. Rapid strike is at -6 for two targets, -12 for three, etc.

*Example:* A shooter attempts a one-second Mozambique Drill (*Tactical Shooting*, pp. 15-16). The shooter would try to aim at two different hit locations (torso and head) for an additional -12 on each Aim, while shooting at two different locations, at an additional -6 to each Attack. If either Aiming roll fails, that *attack* ends.

## ACCURACY TWEAKS

A few options can vary how Accuracy works.

### All 3d, All the Time

Ideally, the Accuracy roll after a successful Aim would vary from a minimum of +1 to a maximum of something like  $2 \times \text{Acc}$ , with an average clustering around Acc. If you can deal with it, go ahead and calculate the Accuracy boost as equal to  $3d/10 \times \text{Acc}$ , rounded up.

### Crappy Guns

Weapons that have Acc 0 will have a hard time *purposefully* hitting a human-sized target beyond 25 yards. Wherever these rules assume a minimum bonus of +1, an Acc 0 weapon platform has a minimum of 0 instead. If you want more, buy a better gun!

### Wobbly Aim

Apply half the margin of failure of any missed Aiming roll to the Guns skill roll for the next shot. You may shoot at the reduced skill, or Aim again at full skill.

If you really love uncertainty, any successful Aim *always* triggers a new Accuracy roll.

## NON-COMBAT BONUSES

*Tactical Shooting* (p. 9) allows up to +10 in bonuses for shooting out of combat. On Target provides for very large bonuses by player choice, but most of those impact only Aim rolls, which don't exist in the regular rules. As such, non-combat bonuses to Aiming are

only granted for knowing range and speed, and +1 for "no risk for missing," such as showing off on the range. Players will mostly only choose All-Out Anything out of combat, anyway, due to the loss of defenses. The same holds true for firing: If the shooter wants bigger bonuses, wait until he rolls a critical success, boosting Accuracy.

## LOW-TECH WEAPONS

Muscle- or spring-powered weapons (such as a spear gun) should be treated as firearms. For bows, you may only *hold* aim for as many seconds as your ST exceeds the ST required to keep the bow drawn (much lower than the draw ST for compound bows). Additionally, you must have at least the bow's holding ST+2 to aim without penalty; Aiming rolls are -1 at ST+1 and -2 at ST.

## SPELLS AND POWERS

The general concepts presented could reasonably be used for Innate Attacks, spell throwing, and similar supernatural abilities. Weapons enchanted with Accuracy (*GURPS Magic*, p. 65) increase *skill*, like a reflex sight. Quick Aim (see above), which normally has the effect of "two turns of aiming," would instead give +1 to normal Acc (combined with an Aiming roll, that would give Acc+2 with fixed Accuracy, or 1d-3+Acc with variable Accuracy).

## ABOUT THE AUTHOR

Douglas Cole is a sometimes writer and oft-times blogger, where he tries to spread the *GURPS*pel at Gaming Ballistic ([gamingballistic.blogspot.com](http://gamingballistic.blogspot.com)). He has been roleplaying since 1981, and playing *GURPS* since 1988. His gripping release, *GURPS Martial Arts: Technical Grappling*, was released in September 2013 – go buy it. He also acted as lead playtester for *GURPS High Tech*, *GURPS Tactical Shooting*, and *GURPS Loadouts: Low-Tech Armor*. Douglas lives with his wife and daughters (!) in Minnesota, where many are cold, but few are frozen. He would like to thank Jake Bernstein, Peter Dell'Orto, Nathan Joy, and Daniel Lunsford for advice and playtesting, as well as Christopher R. Rice and the Pyramid Write Club . . . but the first rule of Write Club is *we do not talk about write club*.



# IT'S A THREAT!

BY CHRISTOPHER R. RICE

Calculating effective combat encounters with a points-based system can be difficult. It takes time and practice for any GM to accurately match a group of opponents with the player characters. *GURPS Monster Hunters 3: The Enemy* has notes for each monster entry on what sort of challenge it provides. This article offers a similar framework for *GURPS Dungeon Fantasy*, including guidelines for gauging newly

created obstacles and ones in previous publications. Matt Riggsby originally created the N system in *GURPS Dungeon Fantasy Adventure 1: Mirror of the Fire Demon*. This article's system borrows from that concept.

This system provides guidelines, not hard-and-fast rules. Balancing encounters is an art, not a science.

## DANGER IS A GO, DELVER!

Since *Dungeon Fantasy* uses a specific starting point total, determining how much of a hazard a particular monster poses is easy – with the right guidelines.

### COMBAT MONSTERS

Use the following methodology to determine the *Combat Effectiveness Rating* (CER) of player characters and their combat-useful allies. CER is derived from two subunits: *Offensive Rating* (OR), which represents how much damage a character can dish out; and *Protective Rating* (PR), which measures how much damage he can take.

Combine OR and PR scores to generate the adventurer's CER. Minimum score is always 1. Thus, the party's knight, Lady Ion the Shy (used in the examples below), has a Protective Rating of 21 and an Offensive Rating of 24, so her CER is 45. Once you've calculated the CER for all player characters and any allies who are useful in combat (animal companions, servitors, etc.), add together all their CER scores. This is a given party's total CER and is used to determine how much of a threat a given group of monsters is to them (see pp. 32-33).

This same system is also used to determine a monster's CER. See p. 31 for more details on this.

### Determining Offensive Rating

The Offensive Rating (OR) is based on five traits.

#### Attack Skill

Take the skill level for the adventurer's best attack and subtract 10. For ranged attacks, add a bonus equal to the Accuracy+2 of the attack; for *innate* ranged attacks, assume Acc 3 if none is listed. Add 5 if the character is capable of multiple attacks *other* than a *Rapid Strike* (p. B370), due to an advantage or power-up (e.g., Extra Attack or Two-Weapon Fighting). If he is capable of *multiple* Rapid Strikes, use the following formula instead: (adjusted skill for number of rapid strikes for attack - 10; minimum of 12) × number of attacks.

Add a cumulative +3 for Heroic Archer, Trained by a Master, and Weapon Master. Add any bonuses from *Rapid Fire* (p. B373). If an attack hits automatically, add 15; do not add this for attacks that require another attack to hit first!

*Example:* Lady Ion has a Broadsword skill of 17, so 17 - 10 = 7. Since she has no extra attacks, she uses her base score.

#### Affliction

Delvers with an attack mimicking an irritating or incapacitating condition (pp. B428-429) add a value equal to 1/5 of its worth as an enhancement to Affliction (pp. B35-36). Do this once for the *costliest* such Affliction. If an attack inflicts damage *and* an Affliction, use the higher of the damage value *or* the value of the Affliction, plus 1/5 of the lower value. For Terror, True Faith with Turning, and similar traits, add 1 per 5 character points the attack has in such traits (rounding up). For Binding, add its ST as a bonus amount. In both cases, these values are in addition to any other Affliction attacks. If the best attack is from a spell or similar FP-using ability, divide the final score by two.

*Example:* Lady Ion has the Kiai skill; Stunning is worth +10% as an Affliction, but it costs FP to use, we halve this amount. This gives her an additional 1 to her OR.

#### Damage

Take the number of dice of damage for the character's best damage type of his best attack (including follow-up or linked damage) and multiply it by 3.5, rounding up. If the attack has a modifier, like "2d+1" or "3d-2," add or subtract the modifier (e.g., +1 or -2) to the score. Damage can be from a weapon, spell, special ability, and so on. Multiply this amount by any bonus to skill from *Rapid Fire* (p. B373) *plus* one, rounding up if necessary. Include bonuses for equipment, traits, etc. Further modify this by the damage's type: multiply by 0.5 for small piercing attacks, by 1.5 for cutting or large piercing attacks, and by 2 for corrosion, fatigue, huge piercing, or impaling attacks; round up.

## SOCIAL THREATS?

"Who goes first?"

"Wait! The bard wants to talk to it."

"Wha-?"

So what happens when the players don't want to kill the monster you've so carefully written up, but talk to it instead? Well, you can let them do that and reuse the encounter via a not-so-carefully orchestrated Quantum Ogre, or you could simply adjust the meaning of an "encounter." For the GM who doesn't mind the occasional "talky-peacenik-hippy" approach, use the following guidelines to determine a "social" version CER for monsters and delvers.

- *Influence*: Take the best of Diplomacy, Fast-Talk, Intimidation, Savoir-Faire, Sex Appeal, or Streetwise, and subtract 10. If a character lacks any of these skills, use the *worst* default. Alternatively, use your base reaction bonus if better (which may be the case for nymph bards!). This is the character's Offensive Rating (Social).

- *Influence Resistance*: Take the character's effective Will score and subtract 10. Include +8 for each of Indomitable and Unfazeable. Add *half* the levels of Fearlessness. Apply +5 if a monster's entry lists the creature as "Unwilling to negotiate." Alternatively, see the box *Ridiculous Reactions* (*GURPS Dungeon Fantasy 11: Power-Ups*, p. 21) and treat the penalties listed there as bonuses. Those with the Detect Lies or Body Language skills may substitute their Will-based skill instead of their base Will, if higher. This is the character's Protective Rating (Social).

Tally this as you would CER, but record it separately; e.g., "CER 40 (Social)." As with hazards, the actions of a single PC could be enough to neutralize the encounter, so compare the party's best CER (Social) vs. the opposition's.

Add 0.5 to this modifier if the attack is also explosive, or 1 if it's a "vampiric" attack. Attacks with Armor Divisors add 5 per "step" (i.e., Armor Divisor 3 would add 10). Attacks with cycles get a bonus equal to the damage total after adjustments multiplied by the number of cycles affecting the target within 15 one-second turns of combat, rounded up (e.g., an acid spider, *GURPS Dungeon Fantasy 2: Dungeons*, p. 21, would score 20 for damage). If the best attack is from a spell or similar FP-using ability, divide the final score by two.

*Example*: Lady Ion's best attack is 2d+2 cutting, thanks to her fine broadsword. This is calculated as 9 (the dice of damage plus modifier)  $\times$  1.5 (for cutting damage) = 13.5, rounded up to 14.

### Fatigue Points

Take the maximum number of FP the character has and subtract 10. Add any bonus FP gained from special abilities (e.g., Energy Reserve) or equipment *after* subtracting 10. Add 1 per 5 character points (rounded up) for traits that enhance FP recovery, but only if they can recover FP within a span of 15 one-second combat rounds, rounded up. Ignore this for beings with an FP of "N/A."

*Example*: Lady Ion has 13 FP, so  $13 - 10 = 3$ .

### Move

Take the delver's best Move score and subtract six. For delvers with Enhanced Move or similar mobility-enhancing traits, use their *highest* Move score for this purpose. If the delver is encumbered, use his *modified* Move.

*Example*: Lady Ion has a Move of 7, but she's just under Medium encumbrance so her modified Move is 5, so  $5 - 6 = -1$ .

### Total

Add together the numbers derived from the previous characteristics to determine OR. Thus, Lady Ion has an Offensive Rating of  $7 + 1 + 14 + 3 - 1$ , or 24.

## Determining Protective Rating

The Protective Rating (PR) is based on five traits.

### Active Defense

Take the character's Dodge *minus* eight, and multiply by two. You may substitute your *best* Parry *minus* eight, but only if it's higher than your Dodge. If you can parry multiple times without penalty (usually because you have two weapons or are parrying unarmed), add 2 for each additional parry. Add 1 if Trained by a Master or Weapon Master applies to this Parry. You may also substitute your Block *minus* eight, but only if it's higher than your Dodge. For Block, add 1 for Weapon Master (Shield). Treat Blocking spells as a Block for the purposes of this calculation. Factor into the total any DB (from shields, magic rings, etc.). In all cases, add 20 per level for Altered Time Rate.

*Example*: Lady Ion has Dodge 9 and Broadsword Parry 12, so  $2 \times (9 - 8) = 2 \times 1 = 2$  and  $12 - 8 = 4$ . Since her Parry is higher, we use that.

### Damage Resistance

Add the DR values for each major location the character has and divide by 4; use a value of 0 for each location without armor. Major body locations are: head, arms (or anything used for manipulation), legs (or any limb used for locomotion or balance), and torso. Include bonuses for equipment, traits, and so on. Damage Resistance with split values (e.g., mail armor) uses the *average* of the two values. DR that only protects against a specific threat (e.g., DR vs Heat/Fire or DR with Tough Skin) adds +1 per 5 character points (rounded up) of such protection. DR with Hardened add 5 per "step" (e.g., Hardened 2 would add 10).

Add 1 per 5 character points a delver has in combat-useful traits like Injury Tolerance, Resistant, Supernatural Durability, Unkillable, and so on. Apply -1 per -5 character points he has in traits like Dependency, Fragile, Vulnerability, Weakness, etc. Add levels of Magic Resistance as a bonus to this amount.

*Example*: Lady Ion wears scale armor on her torso, mail sleeves and leggings, and a pot-helm. Therefore, she has DR  $4/2$  (arms) + DR  $4/2$  (legs) + DR 4 (torso) + DR 4 (head) = 14; when divided by four, this gives a score of 3.5, rounded up to 4.

## Health

Take the character's HT score and subtract 10. Add in bonuses to HT for Fit or Very Fit. Add *half* the level of Hard to Kill or Hard to Subdue. Apply +2 for each of High Pain Threshold and Recovery.

*Example:* Lady Ion has High Pain Threshold, Recovery, and a HT of 13, so  $13 - 10 = 3$ . We add 4 because she has both High Pain Threshold and Recovery, for a total of 7.

## Hit Points

Take the maximum number of HP the character has and subtract 10. Include any bonus HP gained from special abilities like Great Rage (*GURPS Dungeon Fantasy 11: Power-Ups*, p. 19). Add 1 per 5 character points (rounded up) for traits like Rapid Healing, Recovery, Regeneration, etc. Those with the ability to heal others add *half* the amount of HP they can restore in one use of their ability to this amount (cumulative with all other bonuses); if *all* lost HP are restored, add 10. Those who can cure debilitating conditions add a bonus equal to one-fifth its worth as an enhancement to Affliction (pp. B35-36). Use only the better of their ability to heal damage or remove afflictions.

*Example:* Lady Ion has 15 HP, so  $15 - 10 = 5$ . We add 1 because she also has Rapid Healing, for a total of 6.

## Will

Take the delver's effective Will score and subtract 10. Add *half* the levels (round up) of Fearlessness. Add 1 for Combat Reflexes; and add 8 for Unfazeable.

*Example:* Lady Ion has a Will of 10, so  $10 - 10 = 0$ .

## Total

Combine the numbers derived from the above characteristics to figure out PR. For Lady Ion, her Protective Rating becomes  $4 + 4 + 7 + 6 + 0$ , or 21.

## CER-Affecting Gear

Some gear provides bonuses similar to advantages and should be calculated as such. In all cases, the GM should use common sense to determine what the gear does. For example, meteoric armor might effectively give 10 levels of Magic Resistance, for a +10 to PR.

## Healthy Delvers

Some may notice that HT, which represents, the ability to keep fighting (among other things) is not valued more. This is intentional, because delvers usually have the option to run when they get low on HP, or have others heal them, while only boss monsters fight at negative HP. A GM whose playstyle differs may wish to double or triple the final value HT gives to the PR.

## MONSTROUS THREATS

Monsters also have CERs, and they are calculated using the same method as for adventurers. Groups of monsters use their combined CER to determine their effectiveness against a party of delvers. The GM may wish to turn low-CER monsters into "monster swarms" for ease of use. See *Made Monsters* (below) for a quick method.

## MADE MONSTERS

For some monsters, it might be easier to treat a small collection of creatures as one entity (e.g., a "swarm") rather than several discrete beings. To do this, use the following rules to adjust their statistics.

- **Attacks:** Swarms use the same attacks they have as individuals and can go after anything in their hex or anything within their reach. Don't forget to add the bonus for Rapid Fire (see below) to their skill! If the base creature has grappling attacks, the swarm does as well. Treat this as a single attack using the base creature's ST and DX, both multiplied by 1.2 for a grapple or takedown, or 1.4 for a pin. For multi-hex swarms, count only the number of creatures in that particular hex for the purposes of the swarm's RoF.

- **Damage:** The swarm's damage for its attacks remains the same, but attacks now use the rules for *Rapid Fire* (p. B373) to resolve how many hit. RoF equals the total amount of beings in the swarm, while Rcl is 1.

- **Defense:** Swarm defenses remain the same as the base creature, but they usually Dodge.

- **Fatigue/Hit Points:** To figure out a swarm's HP and FP, use the following formula: (total number of creatures in swarm)  $\times$  (base FP or HP)  $\times$  0.6. Once a swarm takes that much damage, it disperses (no HT roll required).

- **Reach:** The swarm's reach remains the same (typically Reach C), but those with a longer reach can strike at anything near their hex, or hexes if a multi-hex creature.

- **Size Modifier:** To determine the size modifier of the swarm, first decide how many hexes it occupies. This is typically a single hex, but use the rules for *Multi-Hex Figures* (p. B391) if needed. Creatures of size modifier -8 or less also add Injury Tolerance (Diffuse) to their list of traits. The following table assumes an "average" swarm; "sparse" swarms may have up to 1/30 the listed amount listed in the table below, while "dense" swarms may have the maximum amount or even one step higher!

SM	Typical Creatures per Hex
0	2 or 3
-1	4 to 6
-2	10 to 15
-3	20 to 30
-4	40 to 65
-5	90 to 140
-6	200 to 300
-7	400 to 650
-8	900 to 1,400
-9	2,000 to 3,000

## HAZARDOUS THREATS

Dungeons are full of pits of stinking water with spikes, fiendish traps, and rooms with moving walls to crush pesky delvers. They can be as dangerous as any monster (sometimes more so!), so why not assign them a CER as well? The usual hazard type is "Traps," but natural hazards (such as dangerous areas of caves) may require other skills and be calculated separately but in a similar fashion.

### Terminology of Specialized CER, OR, or PR

*Technically*, a specialized aspect of CER – e.g., PR (Traps) – refers only to the part calculated for that specific hazard or situation. In practice, this gets unwieldy outside of formulas, so players, the GM, and the author will tend to refer to the *total* of the general *and* specialized CER, OR, or PR. Therefore, while Flicker the Black's nominal PR for Traps is 9 – added to her general PR of 19 in the formula to compute N for this hazard – it's easier to compress that to PR (Traps) 28.

### Characters

Delvers use only their Protective Rating against traps and similar hazards, with bonuses (or penalties) based on their ability to detect and disarm or circumvent the danger. Calculate these as follows, recording the values for each type of hazard separately.

- *Trap-Detecting*: Take the character's Per (and any levels of Acute Sense he might have) and subtract 10. Some advantages give bonuses to Vision rolls; in such cases, add their bonus to Per before modifying it. A delver may substitute his level of Alchemy, Poisons, Thaumatology, or Per-based Traps instead of the base Per, if higher. Add 8 for Danger Sense.

- *Trap-Disarming*: Take the *best* of Alchemy, Hazardous Materials, Poisons, or DX-based Traps and subtract 10. If an adventurer lacks any of these skills, use the *worst* of DX-5 or the default.

*Example*: Lady Ion's roguish companion, Flicker the Black, has DX 13, Per 12, 8 points in Traps, and a Protective Rating of 19. Her Per-based Traps level is 14, from which she her player subtracts 10 to get 4. Her DX-based Traps skill of 15, minus 10, is 5. Therefore, her PR (Traps) is 4 + 5, or 9. Add this to her overall PR of 19 to get 28, and divide *that* by a given trap's OR to determine if it will be a challenge, or if she'll waltz right through it.

If the actions of a single PC are enough to circumvent the obstacle, compare the trap's OR with the party's best PR (Traps). If every PC must defeat the obstacle individually, use the party's *average* PR (Traps).

### Traps

To calculate a trap or other hazard's OR, use the following four aspects of the challenge.

- *Detection*: Add the modifier to detect the trap, but reverse it (e.g., -10 to detect *adds* 10). Add 10 if it cannot be detected

by any means, or *double* the modifier if it requires a special trait (e.g., Magery 0) to notice, minimum 1.

- *Disarmament*: Add the modifier to disarm the trap, but reverse it (e.g., -10 to disarm *adds* 10). Traps that cannot be disarmed add 15 instead.

- *Effects*: Traps causing damage use the rules for *Damage* (pp. 29-30). Those with multiple shots add a bonus equal to 1/5 the value for damage per shot; infinite shots add 10. Hazards that don't damage targets might have noxious effects such as those caused by *Affliction* (p. 29). Hazards mimicking spells use the base skill (calculate as for *Attack Skill*, p. 29), but add damage or Afflictions normally. If a trap has a roll to hit, also use *Attack Skill* (p. 29) to determine the value.

- *Evasion*: Add the inverse of the modifier to evade the trap (e.g., DX-4 to avoid *adds* +4). Traps that cannot be evaded add 10.

Combine all scores together to determine the hazard's OR. Multiply this total by 1.5 for hazards without a method of circumvention. Whether a trap is stealable or not has no effect on its OR. For instance, *Frozen Runes* (**GURPS Dungeon Fantasy 2: Dungeons**, p. 20) would have an OR of 101.

## USING THE RATINGS

You've got all these alphabet-soup ratings and scores, so what now? Now you can decide how challenging an encounter will be! *Balancing Encounters* (**Dungeon Fantasy 2**, p. 27) will be of great use to the GM.

Remember that everything is relative. Encounters that qualify as "boss-level" for a party of Funny New Delvers might be a mere nuisance to experienced adventurers! The environment or awareness of the threat can further modify this (see *Situational Modifiers to CER*, p. 33), as can the number of PCs and/or foes. For example, two delvers vs. two orcs is *not* the same as six delvers versus six orcs, because those six orcs could team up against one adventurer and leave the other five alone.

### Threat Class

Once the OR, PR, and CER for the party and its challenge has been tallied, use the following formulas to determine N.

*For monsters*:  $N = (\text{Party's Total CER}) / (\text{Monsters' Total CER})$ .

*For hazards*:  $N = (\text{Party's Total PR} + \text{PR (hazard type)}) / (\text{Hazard's OR})$ .

An N of less than 1 means that the delvers are outmatched. While N of 0.10 doesn't mean 10% chance of victory or odds of survival in the strictest sense, low N values are likely to result in sudden and lethal spirals once the PCs engage the enemy.

For example, if the CER of a party of four adventurers is 120 and a monster's CER is 120, then N is 1. In theory, this monster should be an even match for the party. In practice, the party is likely to use flanking or other group tactics to gain an advantage, unless the encounter will somehow prevent this (see *Situational Modifiers to CER*, p. 33, for some ideas). The GM probably will want to use a couple of these opponents, or add some assistants, to keep the party on their toes.



However, if a battle has left Lady Ion the last adventurer standing, a *single* CER 45 monster should keep her quite occupied until the other players get back from their pizza run.

The GM also can use the formulas to decide how many monsters are needed for an encounter of a specific threat class. To get the total CER of all monsters in the encounter, divide the party's total CER by an N related to the threat class. Then, divide the monsters' total CER by the CER of a single monster to find the number of enemies needed. For an easier encounter, drop fractions. For a tougher challenge, round up the number, or add different creatures with a smaller CER to create a mixed group. See *Dungeon Fantasy Threats* (pp. 34-35) for a list of pregenerated CERs.

Using N, consult the following chart to determine the monsters' "threat class," which is based on the "fodder," "worthy," and "boss" titles described in *Dungeon Fantasy 2* (p. 27).

N	Threat Class	Description
11+	Nuisance	The monsters are pests or a diversion of some kind.
10 to 3	Fodder	The enemy may wear down the PCs, but will rarely beat them.
2 to 0.49	Worthy	This fight is roughly even.
0.50 to 0.10	Boss	The enemy outmatches the party, who will need luck and quick wits to win.
Less than 0.10	Epic	Only luck, emergency one-use magic, or unexpected reinforcements will save the heroes!

- *Nuisance* monsters usually appear in droves outnumbering the delvers at least 10 to one. Their attacks are so weak and ineffective that only critical hits can do minor damage, even to those with the weakest DR. The enemies never attempt an active defense, aren't nearly as mobile as adventurers, and have low HP. This usually means they go "splat" after one hit. Such creatures are dangerous only to the ill-prepared or unlucky. *Typical N-Rating*: 11 or more.

- *Fodder* monsters are only a little "beefier" than nuisance monsters. Their attacks are better, but not by much. As *Dungeon Fantasy 2* notes, they're basically "a distributed monster that has lots of attacks." Combats consisting of lots of little creatures can go by fast, but are a pain for the GM to track; see *Made Monsters* (p. 31) for an alternative. *Typical N-Rating*: Between 10 to 3.

- *Worthy* monsters can typically challenge delvers on a one-to-one or two-to-one odds. Such creatures use *Balancing Encounters* (*Dungeon Fantasy 2*, p. 27) "as is." Should the GM wish to vary this, he can make trade-offs between defense, mobility, or offense. For example, a giant might do increased damage but move slowly. *Typical N-Rating*: Between 2 to 0.75.

- *Boss* monsters are meant to be a difficult task for an entire party of delvers. Their defensive capabilities are hard to bypass. They can kill with two to three hits, and are capable of being nearly anywhere on the battlefield. Multiple attacks are likely, in the form of Extra Attacks or high skill to perform Rapid Strikes. Their active defenses are high, or they have a lot of DR, and they'll fight on even when below -HP. Such encounters don't need to be a single monster – they could be multiple powerful *worthies* using teamwork, tactics, and/or local terrain. *Typical N-Rating*: Between 0.50 to 0.10.

- *Epic* monsters pose a nearly – or outright! – impossible challenge. Their defenses defy reason, and their attacks slay any being they hit. Their means of locomotion grants them a nigh-ubiquitous battlefield presence. In video-game terminology, they are the final boss of the game. *Typical N-Rating*: Less than 0.10.

### Example

The Headhunters are a group of bounty-hunting delvers "shooting trouble" for gold. They've been tasked to find a group of orc raiders. Locating the encampment, they manage to set up an ambush. The total CER of the Headhunters is 250, while the orcs have a CER of 49 each. Since the GM wants this to be a low-level "boss" encounter, he'll need at least 10 orcs. The GM had intended to have 11 orcs in the camp, but more are needed to maintain the challenge in the face of an ambush.

## SITUATIONAL MODIFIERS TO CER

Monsters or hazards by themselves are dandy, but what if the PCs have the upper hand thanks to terrain or other environmental conditions? What if the monsters do? This affects how difficult the encounter is. To represent this, modify the opposition's total CER. The GM then can raise or lower the number of monsters involved, or adjust the circumstances, to maintain the threat level. The GM may need to create his own modifiers, but here are a few suggestions.

Advantageous terrain, environments, modes of movement (e.g., flight, insubstantiality, etc.), or weather alters the opposition's total CER by +20% if circumstances hinder the PCs, or by -20% if conditions help the adventurers.

Modify the total CER if the majority of one or the other are capable of advantageous movement (air vs. land, insubstantial opponents, etc.) but can still attack. When more than one condition applies, they are additive! For example,

if the party's druid casts Walk Through Plants on all adventurers before an orc encounter in an old-growth forest, the orcs will be at a disadvantage due to terrain; this adjusts the monster's total CER by -20%. If the druid had forgotten to cast Walk Through Plants (+20% to the opposition's CER due to terrain hindering the party) and the enemy had their own caster use such a spell (+20% to CER due to extra orc maneuverability), that would be +40% to their CER. This indicates the orcs in such an encounter will be more potent than their basic CER suggests, and the GM may need to take care to avoid an unintended slaughter of the heroes.

If a PC has a trait that negates or outright bypasses a dangerous situation, and it affects the entire party (or most of it), then ignore the situation's modifier. For example, if the party's thief has Danger Sense and will likely succeed at her roll to notice an ambush, do not include a modifier for the ambush to the monsters' total CER.

With the ideas from *Situational Modifiers to CER* (below) in mind, the GM settles on 16 orcs and sets up the map . . .

## HAZARDS OF THE DELVE

Wandering through dank halls searching for books of forgotten lore is a rough business. More than that, the adventurers will be wounded at least some of the time or otherwise incapacitated to some degree. Back-to-back encounters while the party's resources dwindle will become increasingly difficult. The GM should keep a close eye on the party's current HP and FP, as well as consumable gear like potions, projectiles,

scrolls, and so on. The lower such "spendable" resources become, the harder future fights are going to be.

CER depends on the delvers being at full strength – and repeated combats can wear down their ability to get back to it. GMs may wish to gauge encounters ahead of time by estimating the CER of a depleted party, based on what has come before. Alternatively, a GM may wish to adjust monsters "on the fly." An easy way to do this is to rate the CER of delvers who have run out of consumable resources as only 75% (or even 50%) of their base CER. This is a highly optional rule, because it can require pausing the game while the GM does hasty math to weaken (or strengthen) the opposition based on the condition of the group.

# DUNGEON FANTASY THREATS

The following tables do all the work in calculating OR, PR, and CER of the published monsters from the various *Dungeon Fantasy* supplements and *Pyramid* magazine through February 2015. Gear is ignored here, except where it is noted that a specific piece of equipment is used by the monster.

Spellcasting monsters use the *best* damage- or Affliction-inducing spell they can cast.

OR is the Offensive Rating (see pp. 29-30).

PR is the Protective Rating (see pp. 30-31).

CER is the Combat Effectiveness Rating (see p. 29).

Monster Name	OR	PR	CER	Notes
<b>GURPS Dungeon Fantasy 2: Dungeons</b>				
Acid Spider	32	62	94	
as-Sharak, Agni	27	59	86	
as-Sharak, Akaska	29	59	88	[1]
as-Sharak, Jala	40	59	99	
as-Sharak, Prithvi	22	59	81	
as-Sharak, Vayu	27	59	86	
Crushroom	14	55	69	
Dire Wolf	14	13	27	
Dire Wolf, Alpha	15	15	30	
Doomchild	34	16	50	
Erupting Slime	11	20	31	
Flaming Skull	37	48	85	
Flesh-Eating Ape	16	14	30	
Foul Bat	31	5	36	
Frost Snake	28	22	50	
Giant Rat	13	5	18	
Golem-Armor Swordsman	19	33	52	
Horde Zombie	4	19	23	
Mindwarper	61	75	136	
Peshkali	31	81	112	
Siege Beast	37	42	79	
Stone Golem	29	41	70	
Toxifier	12	35	47	
Trigger	32	16	48	

### GURPS Dungeon Fantasy Monsters 1

Bronze Spider	19	31	50
Bugbear	16	10	26
Cicualá	57	50	107
Corpse Golem	20	15	35
Demon from Between the Stars	44	30	74

Monster Name	OR	PR	CER	Notes
Demon from Between the Stars, Priest	56	30	86	
Demon of Old	29	57	86	
Dinoman	9	3	12	
Draug	31	25	56	
Electric Jelly	58	89	147	
Eye of Death	25	34	59	
Flame Lord	23	44	67	
Giant Ape	33	45	78	
Giant Ape, King of the Apes	62	67	129	
Gladiator Ape	21	16	37	
Horde Pygmy	14	-4	10	
Horrid Skull	49	-22	27	
Ice Wurm	55	77	132	
Karkadann	49	20	69	
Leaping Leech	8	-7	1	
Lich	100	59	159	
Obsidian Jaguar	29	45	74	
Rock Mite	13	53	66	
Slorn	23	40	63	
Slugbeast	35	28	63	
Sphere of Madness	30	40	70	
Sword Spirit	41	27	68	
Throttler	18	24	42	
Troll	29	86	115	
Undead Slime	18	63	81	
Void Brute	19	35	54	
Watcher at the Edge of Time	44	48	92	[2]

### GURPS Dungeon Fantasy 14: Psi

as-Sharak, Aloakasa	20	58	78	
Astral Hound	17	29	46	
Astral Thing	33	-8	25	
Chaos Monk	29	19	48	
Flying Squid Monster	23	37	60	
Fuzzy, Biter	16	-7	9	[3]
Fuzzy, Bright	25	-7	18	[3]
Fuzzy, Gloomy	-3	-7	1	[3]
Fuzzy, Jiggly	20	-7	13	[3]
Fuzzy, Lumpy	5	-7	1	[3]
Fuzzy, Spewer	11	-7	4	[3]
Neuroid	37	52	89	
No-Brainer	4	20	24	
Odifier	17	38	55	

Monster Name	OR	PR	CER	Notes
<b>Pyramid #3/50: <i>Dungeon Fantasy II</i></b>				
Abominable Snowman	19	22	41	
Animated Snowman	9	4	13	

### Pyramid #3/70: *4th Edition Festival*

Horde Ninja	28	7	35	[4]
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### Pyramid #3/76: *Dungeon Fantasy IV*

Dire Frog	23	11	34	
Dire Hart	23	17	40	
Fetusoid	14	23	37	
Hungry Room	21	112	133	
Intruder	42	57	99	
Pscorpion	26	27	53	[5]
Pyro-Tiger	55	15	70	
Terrible Dire Bunny	52	13	65	
Terrible Dire Wolverine	69	65	134	
Terrible Hedge	315	8	323	
Terrible Terrier	18	3	21	
Terrible Whipping Willow	315	76	391	

### Notes

[1] Assumes that ignoring DR against opponents except those with Doesn't Breathe is worth as much as Armor Divisor (2), for +5 to its base OR.

[2] Gives full bonus for "Warp" Move.

[3] Was calculated using effects as if they were Afflictions.

[4] Includes damage from Bladeblack poison.

[5] Pscorpions with two tails add 5 to their CER; other varieties use the CER listed.

## NEW MONSTER

This new creature for *Dungeon Fantasy* campaigns demonstrates how to use the formulas with other opponents not listed here.

### Boneflower

Boneflowers are top-heavy plants that look like grotesque sunflowers around 10' tall. Their roots resemble moss-covered bones. They attack by "spitting" a hail of small poisoned spines from its all-too-human-looking mouth. Despite its appearance, it can move around, albeit slowly and with effort (for 1 FP, it gains a Move of 2 for 1 minute).

Boneflowers are a favorite of necromancers, thanks to the negative energies they naturally emit. These energies raise the mana level within one yard of them by one step for Necromancy spells and necromantic abilities.

Boneflowers reproduce when one of their spines is implanted in flesh. The spine will sprout in 1d days into a small (but rapidly growing) baby boneflower. Accounts of delvers living long enough to have it sprout out of them (the host dies soon after!) are quietly whispered of in taverns.

<b>ST:</b> 15	<b>HP:</b> 15	<b>Speed:</b> 4.50
<b>DX:</b> 10	<b>Will:</b> 10	<b>Move:</b> See above.
<b>IQ:</b> 4	<b>Per:</b> 12	<b>Weight:</b> 100 lbs.
<b>HT:</b> 12	<b>FP:</b> 10	<b>SM:</b> +1
<b>Dodge:</b> 7	<b>Parry:</b> N/A	<b>DR:</b> 3

**Spines (15):** 1d+2(2) impaling + roll vs. HT at -1 per 2 points of penetrating damage or suffer from Terrible Pain for (20 - HT) minutes, minimum of 1 minute. Furthermore, if the spines aren't removed, they work their way into the flesh of the target. This inflicts 1d+2 impaling damage every 10 seconds until the target is dead or the spines are removed (see *Horrible Grubs*, *Dungeon Fantasy 2*, p. 13). Range 10/50, RoF 7, Rcl 1.

**Traits:** Blindness; Deafness; Dependency (Soil and water; Constantly); Detect (Living Beings; Reflexive; Targeting); High Pain Threshold; Injury Tolerance (Homogenous, No Blood, No Eyes, No Head); Invertebrate; Mana Enhancer (Accessibility, Necromancy only); No Manipulators; Numb; Unfazeable; Vibration Sense (Air; Reflexive; Targeting); Wild Animal.

**Skills:** Camouflage-15; Innate Attack (Projectile)-15.

**Class:** Plant.

**Combat Effectiveness Rating:** 106 (OR 81 and PR 25).

**Notes:** Not affected by Plant spells or Plant Empathy, but *are* affected by Necromancy spells and Spirit Empathy with the Necromantic power modifier. Their Detect and Vibration abilities borrow the Targeting modifier from Scanning Sense. This raises their skill by *six* against a target they aim at that has been located with both Detect *and* Vibration Sense. They typically attack the neck (skill 16) or the vitals (skill 18) in such cases. Aquatic versions of boneflowers, resembling bull kelp or other underwater plants, may exist if the GM wants to confront the party with under-the-sea threats – such as necromantic mermaids.

**Combat Effectiveness Rating Calculation:** Boneflowers have an attack skill factor of 15: 15 (Skill) - 10 + 5 (Acc) + 1 (RoF). Its Affliction factor is 3: (Terrible Pain) 12 × 1/5. Its damage starts at: 6 (1 die of damage × 3.5, plus the modifier of +2) × 2 (RoF) × 2 (impaling), making the damage factor worth 24. Its Armor Divisor adds 5, for 29. It also has Cyclic, which can affect a delver twice in 15 one-second rounds, which is worth 44, for a total of 71. It gets 0 for Fatigue (FP 10 - 10 = 0) and -4 for Mobility (2 - 6 = -4). Its total OR is 81. It has an active defense factor of -1: 7 (Dodge) - 8 = -1 × 2, is -2. Its DR factor is 9: 3 (base DR) + -5 (Dependency) + 11 (Injury Tolerance). Its HT factor is 4: 2 (HT 12 - 10) + 2 (High Pain Threshold). Its HP factor is 5: 15 (HP) - 10. Its Will factor is 8: 10 (Will score) - 10 + 8 (Unfazeable). Its total PR is 24. Therefore, its total CER is 105.

## ABOUT THE AUTHOR

Christopher R. Rice knows it's a trap and now he knows it's a threat. What will he know next? From Portsmouth, Virginia, he dreams of being able to write full time, or at least eke out a living doing it. Of course, if he's not writing about *GURPS*, he's blogging about it. Visit his site "Ravens N' Pennies" ([www.ravensnpennies.com](http://www.ravensnpennies.com)) for more *GURPS* goodies. He wishes to thank L.A., his own personal muse, as well as the rest of his gaming group; Antoni Ten Monrós; Beth "Archangel" McCoy, the "Sith Editrix"; Douglas Cole; Peter Dell'Orto; Scott "Rocketman" Rochat; Tim "Humabout" Ponce; and Walter "Nyndok" Wilson, for when I called upon them, they answered.

# RANDOM THOUGHT TABLE

## FASTER, COMBATANTS! KILL! KILL!

BY STEVEN MARSH, *PYRAMID* EDITOR

When it comes to combat, sometimes faster is better. Perhaps you've got bigger plot developments coming up. Maybe you're running toward the end of the allotted gaming time, and you need to wrap things up quicker. I once ran an epic 12-hour game where the players were too tired to really be invested in the final climactic battle; I wish I would've sped things up an hour or two earlier to make that final confrontation more meaningful. Over the years, I've used and tweaked a number of techniques to speed things up in minor and not-so-minor ways. Here, then, are some bits I've tried over the years. These aren't universally applicable, and are probably best suited for gamers who don't favor tactical exactness. I've played a lot of games over the years, so not all ideas necessarily apply to RPGs you're interested in (<ahem> *GURPS* </ahem>). But hopefully there's a nugget or two you can use in your own campaigns.

### ACCEPT THE INEVITABLE

Many systems allow PC combatants to mop up mooks quicker and easier, often by either by giving the baddies fewer Hit Points or giving the heroes abilities that let them blast through unimpressive adversaries.

However, that's often not terribly satisfying from an intellectual point of view; why should Carl J. Henchman not be able to use his abilities to his fullest? Why does he have red-and-white concentric circles painted on him just because he hasn't advanced that high up the EvilCo hierarchy chart?

One technique that works well is to run encounters with lesser adversaries "by the book," with no special bonuses or penalties for either side. However, the combat is only run for a finite period, or until a predefined outcome occurs. Some ideas include:

- Until a certain number of combat turns have been executed (two to three seconds in *GURPS*, a few combat rounds in *Dungeons & Dragons*, etc.).
- Until a milestone is reached (for example, two mooks are incapacitated).

- Until a certain real-world time is reached or used (say, "five minutes" or "until noon").

At that time, the GM should determine how effective (or not) the lesser adversaries have been. As the most obvious outcome, if that mooks haven't managed to inflict any damage against the heroes during that period, while the mooks have been whittled down or had their Hit Points eroded, then it's reasonable to extrapolate that they'll *never* do any damage against the heroes (barring critical successes or other unlikely outcomes).

Similarly, if the mooks managed to do 1d of damage against one of the four PCs in the period, during the time when 33% of the mooks have been taken out, then it's reasonable to wrap up by extrapolating that two random PCs will each suffer 1d damage each (to which they can apply any applicable defenses or abilities).

To use this technique, run the combat as normal until the breakpoint. Then the GM can say something like, "I think we've seen enough to wrap this up narratively; does anyone object if I abstract this out?" If the players are cool with it, then wrap up the combat. (It's probably best to for the GM to be fair – even erring on the side of the heroes – so that players don't continue unnecessary combats just to keep from getting adversely affected by GM fiat.)

### Troubleshooting

If one or more of the players wants combat to continue, that can be justifiable. Here are some likely reasons.

*They want to accomplish something.* Sometimes participants have secondary reasons for entering or continuing combat, such as gaining experience trying out new abilities, attempting to see if the mooks reveal any clues that lead to the identity of the mastermind, and so on. If so, then either abstract those elements ("give me a roll to see if you trick one of these losers into revealing something") or continue the combat until he's satisfied. This doesn't mean the combat needs to continue for everyone . . .

*The objecting player(s) enjoy combat.* It's entirely plausible that one or more players enjoys combat, even if "combat" is here defined as "mopping the floor with horribly outclassed bad guys." If that's the case, then run their side of combat; if there are four PCs and eight mooks, then let the fight-happy player mop up his two dopes. Some GMs might worry that this turns the focus onto those PCs too firmly at the expense of the other players. However, when the spotlight is moved to noncombatant heroes at other points in the game, the GM should let each person have his own kind of fun – some heroes get their 15 minutes of glory by bamboozling bureaucrats or sneaking across courtyards; others get theirs by being fighters without peer.

## COOL (YET LIMITED) DESCRIPTIONS

Many tabletop games benefit from players who seek to be descriptive in their actions. Your hero made a Lockpicking roll by 3; by saying either "I focus on the lock and drown out the chattering of my teammates, becoming one with the tumblers," or "I start using language that would make a sailor blush as I try to get this freakin' lock open," you're providing insight – and hopefully a bit of amusement for the other players. (And this applies not only to RPGs, but to *all* tabletop games; if you roll a 12 while playing *Monopoly*, that's a perfect time to say, "I floor it in my thimble and zip on by your expensive roach-motel properties! Ha-ha!"

Of course, the expressive flavor of explaining *what* dice rolls mean happens in combat as well. In fact, *Exalted* gave significant bonuses to players who came up with descriptions for their actions beforehand; the highest bonus was defined as: "The player comes up with something amazing. Everyone at the table goes 'Damn, that's cool.'"

Unfortunately, it's possible to be *too* graphic – especially at a table with a few hammy players. If your every action is punctuated with a two-minute digression into how awesome you're being, it can get on everyone's nerves.<sup>3</sup>

If you have a codified system that gives a bonus to actions that the players seem a bit *too* anxious to tap, then feel free to limit it in some ways. Some ideas:

- *Once per combat per player.* Simple, easy to adjudicate. The GM might need to give more clues as to *where* in the combat the heroes currently are, to keep players from hoarding their bonus too long and then only getting to use it when the outcome is inevitable.

- *Everyone gets a turn.* Perhaps each player has a unique token (such as a chip with his hero's name on it) that he tosses into the center of the table whenever he's going to be descriptive and claim the bonus. Once all the players have tossed their chips into the table, everyone reclaims their chips.

- *Once per combat (escalating).* This is similar to the first option above, but with a strategic twist. Each subsequent usage provides a bonus. Thus the first player to give a

description and receive a bonus gets (say) +1, the second gets +2, the third gets +3, etc. In this way, the player who holds off being cool gets to be *even cooler*.

- *Everyone gets a turn (escalating).* This combines *Everyone gets a turn* with the escalating idea; once the last player gets his [+number of players] bonus, everyone gets their tokens and it resets to +1 again.

## ROLL PREEMPTIVELY

Many players love rolling their dice, and it's unwise to try to dissuade gamers from using them. But the GM? A lot of what he does with dice is "busy work"; it's necessary from a simulationist point of view, but doesn't really need to be done.

If you're looking to speed things up on the GM side of the cardboard duck blind, generate a batch of dice rolls for NPCs ahead of time. This works especially well for mooks, who have a limited range of skilled actions and tactics.

How you create your list of pregenerated rolls is up to you. If you're old-school or trapped in 1979, you can roll physical dice ahead of time. If you have programming acumen, you can easily write some code. If you use Microsoft Excel or LibreOffice Calc, this equation will generate a random 3d roll (which you can copy/paste as much as you want):

$$=(\text{INT}(\text{RAND}()*6)+1)+(\text{INT}(\text{RAND}()*6)+1)+(\text{INT}(\text{RAND}()*6)+1)$$

Once you have a list of random rolls, keep them handy and rattle off middling battle results quickly. For example, if you have three mooks with Knife-12, and you think you'll need at most 10 rolls apiece, then you might expand their skill line for that to read:

### Mook 1

Knife-12 – 9 5 8 14 8 4 11 9 12 12

### Mook 2

Knife-12 – 13 15 13 8 9 3 13 8 8 9

### Mook 3

Knife-12 – 6 9 8 11 8 16 15 16 10 12

As mooks make their attacks, just cross off the used numbers.

This technique can also be used for damage, dodge rolls, and other mundane methods that can be predetermined.

## ABOUT THE EDITOR

Steven Marsh is a freelance writer and editor. He has contributed to roleplaying game releases from Green Ronin, West End Games, White Wolf, Hoghead Publishing, and others. He has been editing *Pyramid* for over 10 years; during that time, he has won four Origins awards. He lives in Indiana with his wife, Nikola Vrtis, and their son.

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1. I'm just kidding. Please, don't do this; it's obnoxious.<sup>2</sup>

2. And when I say "it," let me clarify: Never, ever play *Monopoly*.

3. Of course, if the descriptions aren't getting on everyone's nerves and everyone is having fun, then – by all means – continue! If you're having fun with something, who am I to tell you not to do it?<sup>2</sup>

# ODDS AND ENDS

## I SEE YOU SHIVER WITH ANTICI . . .

In fiction and roleplaying games, one of the most satisfying elements of many combats and battles is the calm before the storm, that moment before the weapons are drawn, when both sides get to chat, intimidate, etc. Here are some tips to make that happen – and see *Meeting and Greeting Before the Beating* in *Pyramid* #3/54: *Social Engineering* for even more ideas.

- *Reward gamers who play along.* If it's genre appropriate to give the villain a chance to gloat when he rotates in his chair while stroking a cat, give the players a reward for letting him do so. If the heroes try to intimidate villains or inspire their side (and roll-play/role-play well enough), make sure they get a bonus, a tidbit of intel, etc.

- *Give cause to hold fire.* Coming up with a reason why the heroes can't start blasting goes a long way to ensuring there's a moment of calm. Perhaps one of the villains has some info that the heroes first need to trick or cajole him into giving. Maybe it's an area where fighting wouldn't be conducive (nightclub, space station, college cafeteria). The latter can work especially well when you . . .

- *Let the lull be finite and known.* If the countdown to combat is known (at least by one side), then that makes the tension even greater. Perhaps a firefight on the spaceship is dangerous while it's leaving the planet's atmosphere, but as soon as it hits space, the vessel has the resources to enact a full shield (and thus end the danger of stray shots). Maybe the villains are slowly phasing into our reality, and they willing to engage in a bit of conversation before they arrive in body.

- *Make it fun.* The lull before battle can be brief but fun. Let the bad guys twirl mustaches and goad. Let the good guys reiterate their dedication to righteousness or rally their own forces. Savor the moment before the dice start flying.

# MURPHY'S RULES

BY GREG HYLAND



Got a *Murphy's Rule* of your own? Send it to [murphy@sjgames.com](mailto:murphy@sjgames.com)

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