

THE ULTIMATE BASE



**HERO
SYSTEM**
SIXTH EDITION

Steven S. Long



THE ULTIMATE BASE



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An Ultimate Book For The HERO System

AUTHOR

Steven S. Long

ADDITIONAL CONTRIBUTIONS

Bob Greenwade, John Lees

EDITING AND DEVELOPMENT

Darren Watts

LAYOUT AND GRAPHIC DESIGN

Fred Hicks

COVER ART

Sam Kennedy

INTERIOR ART

Nate Barnes, Storn Cook, Bob Cram,
Andrew Cremeans, Jonathan Davenport,
Brian & Brendon Fraim, John Grigni,
Buz Hasson, Cara Mitten,
Scott Ruggels, Christian N. St. Pierre,
Greg Smith, Chris Stevens

CARTOGRAPHY

John Lees

PLAYTESTERS

We'd like to thank the following playtesters, who helped test the Kingdom creation and combat rules in Chapter Eight: Sarah Adams, Larry Algee, Greg Armour, Chirag Asnani, Jason Bailey, Brad Barrett, Brian Beaver, Daniel Beaver, Casey Bradley, William Briggs, Tony Burns, David C. Boddie, Brek Corso, Taylor Corso, Kait Cottengim, Kyle Cottengim, Angela Dyer, Wade Dyer, Bonnie Edwards, Jason Etheridge, Mark Ewbank, Gordon Feiner, Scott Fields, Lex Fleming, David Ford, Kevin Getches, Curt Graham, Ernie Griffin, Jennifer Griffin, Gabe Hatton, Roger Hightower, Geordie Irvin, James Jandebour, Jeffery Keown, Jeffery Keown, Jr., Bill Keyes, Tammy Sue Keyes, Sheila Knowles, Jye Lambert, Chris Lorensen, John Losey, Clint Menezes, Mike Merrell, Frank Mikes, Dean Nicholson, Simon Nolen, Deric Page, Bill Phillips, George Richbourg, Ron Ritchie, Cathy Safly, Dawn Spencer, John Staple, David Stephens, Phil Swim, Chris Wickline, Kim Wilkinson, Ben Wintersteen, and other members of their gaming groups who helped out. Thanks!

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INTRODUCTION

ABBREVIATIONS

This book uses the following abbreviations to refer to other *HERO System* books:

6E1: *The HERO System 6th Edition, Volume I: Character Creation*

6E2: *The HERO System 6th Edition, Volume II: Combat And Adventuring*

APG: *The HERO System Advanced Player's Guide*

MORE BASES

If the sample Bases in this book aren't enough to satisfy your appetite for villainous lairs and mighty castles, there are plenty more in other Hero Games books! The following books all contain maps and descriptions of Bases or similar locations:

- *The Book Of The Destroyer*
- *The Book Of Dragons*
- *The Book Of The Machine*
- *Champions Battlegrounds*
- *DEMON*
- *Fantasy Hero Battlegrounds*
- *Masterminds And Madmen*
- *Stronghold*
- *Thrilling Hero Adventures*
- *Thrilling Places*
- *VIPER*

Adventures in roleplaying game campaigns often involve travel across dangerous territory, fights in exotic locales, quests to destroy evil artifacts of great power, and other activities that take a character far from home. But ultimately a character needs a home — a place of safety and refuge that he can return to between adventures, that he can defend from enemies and invaders, and where he can store all his stuff. In *HERO System* terms, a character's home, be it a castle, a space station, a secret headquarters, a nice little condo over on the west side, or something else, is referred to as a *Base*.

The Ultimate Base, the latest book in Hero Games's *Ultimate* series, looks at the subject of Bases — everything from the most primitive caves and hill-forts to superheroes' gadget-filled headquarters and the gigantic starbases of Science Fiction. It discusses how to build them with the *HERO System* rules (including some new, optional rules where appropriate), and how to use them in your gaming adventures.

In this book, a “Base” (capital B) refers to something built using the *HERO System* Base construction rules presented here and in the *HERO System 6th Edition*. A “base” (lower-case b) refers to any building, facility, or installation that functions as a base, independent of whether it was built using the Base construction rules or is intended for use in a game setting at all.

As an *Ultimate* series book, *The Ultimate Base* focuses primarily on rules. It doesn't include any campaign information or genre review — but it's got comprehensive *HERO System* rules for all sorts of Bases. Both players and GMs will find a lot inside its covers to interest them. As always, it's up to the GM to decide which of the new rules he wants to use in the campaign. Not all of the optional rules in this book are required for all campaigns. Characters in some games may not use or pay much attention to Bases at all, while in others they're such a crucial part of the campaign (or a specific adventure) that the rules in this book take on particular importance. While most campaigns benefit from having more thorough Base rules in play, not all games require this level of detail; each GM should decide for himself whether he needs advanced Base rules.

Chapter One, *Building A Better Base*, reviews general Base creation rules — rules that apply to all Bases, or to more than one type of Base. It includes, among other things, an expanded Base Size Table and other rules regarding Base Characteristics. It also discusses general considerations you should keep in mind when designing a Base; your Base won't be much fun to live in if there are no bedrooms or bathrooms!

Chapters Two, Three, and Four provide information and special rules pertaining to Bases in Fantasy games, modern-day games, and Science Fiction games, respectively. Each chapter includes several example Bases complete with maps.

Chapter Five, *Furnishings And Firepower*, discusses equipment for Bases. It provides dozens of pre-built examples of weapons, defenses, sensors, and other equipment characters can install in Bases. It should save you a lot of time during the Base creation process.

Chapter Six, *Siege Perilous*, covers how Bases function in adventures and combat situations. Whether your characters' Base is under attack, or they're using its resources to help them succeed on one of their missions, this chapter tells you what a Base can do and how to resolve what happens.

Chapter Seven, *Homeowner Heroes*, describes how characters and Bases interact. It covers not only how characters buy a Base but other ways in which the character creation process affects (or is affected by) a Base.

Chapter Eight, *Kingdoms*, takes the concept of a “Base” to a whole new level. It provides a new subset of *HERO System* rules for creating and playing “Kingdoms” — nations, realms, cities, organizations, empires, and similar entities. Using it you can create Kingdoms as “characters” and pit them against one another in geopolitical conflict and negotiation, ally with another Kingdom to go to war against a third, spy on your rivals, establish trade networks, and so on. The rules allow for seamless integration of Player Characters and Kingdom characters so that you can determine the effect of your characters' actions on your Kingdoms, and vice-versa.

So get ready to fend off (or conduct) sieges, construct (or infiltrate) impregnable fortresses, cope with the hazards of a master villain's secret headquarters, and meddle in the affairs of nations — it's time for expanded *HERO System* fun with *The Ultimate Base*!



CHAPTER ONE
BUILDING A
BETTER BASE:
GENERAL BASE CREATION RULES



BASE CREATION

1

TECHNOLOGY VERSUS MAGIC

Most of the guidelines in this chapter, and especially the section on Powers, assume Bases are technological in nature. However, in many campaigns and settings, it's possible to have a Base whose abilities derive from magic.

Technology is real, so it's relatively easy to define what it can do, or to extrapolate how a device might function based on realistic (or quasi-realistic) scientific principles. Magic, on the other hand, varies wildly from setting to setting, campaign to campaign, and genre to genre, so it's often impossible to generalize about how magic affects or interacts with Bases (except to say that anything you can do to or with a Base technologically, you can almost certainly do magically). Each GM should make the necessary decisions and rulings for his own campaign, but don't think that because *The Ultimate Base* doesn't mention magic very often that magic Bases aren't possible.

These rules describe how characters create Bases, whether they're medieval castles, space stations, the sprawling underground headquarters of a supervillain, or even more bizarre installations. This chapter examines the subject of Base creation generally, covering topics that could apply to all Bases, or multiple types of Bases. You can find information associated primarily with a specific type of Base in the chapter devoted to that Base type (for example, rules for moats are in Chapter Two, which covers castles and other Fantasy-era Bases).

BUYING A BASE

Buying a Base is like buying any other type of equipment. In Heroic campaigns, characters pay money for Bases, or acquire them through negotiation, conquest, or similar methods. In this case, the GM usually designs the Base, and he also sets the price. Players can design their own Bases with the GM's permission.

Characters in Superheroic campaigns pay for Bases with Character Points (see 6E1 107). These points can come from one individual or several. Typically, Bases cost 1 Character Point per 5 Character Points used to create the Base. As with anything else in the *HERO System*, the minimum cost of a Base is 1 Character Point.

TYPES OF BASES

The concept of a "base" is so broad that categorizing them is often difficult. Generally speaking there are two ways to define types of bases: location and function.

Base Location

For purposes of organizing bases by type, "location" refers not to a precise physical site or address, but to the general type of environment the base exists in. This factors into a Base's cost; the more remote (and thus secure) a Base is, the more it costs. See *Location*, below, for more discussion of the different types of Base locations and what they entail.

Base Function

A Base's function isn't something that a character pays Character Points for specifically. Instead it affects where he decides to locate his base and the type of facilities and equipment he buys for it. For example, an orbital luxury resort has few (if any) mounted laser cannons, since it's not a military facility; on the other hand, an orbital fortress probably doesn't have a gourmet kitchen. (Of course, many Bases have multiple functions; you don't have to limit yourself to just one when designing a Base.) Possible functions include:

COMMERCIAL

While they're not commonly purchased by roleplaying game characters, "realistically" many Bases are commercial in nature — either they make something for sale, or they provide some service people pay money for. Factories, hotels, luxury resorts, and amusement parks are all examples of commercial Bases.

RESIDENTIAL

Sometimes the most important sort of Base a character can have is his home — the place where he lives from day to day, relaxes, eats, and sleeps, whether that's a townhouse in an exclusive building in the city, a split-level in the suburbs, a stately manor out in the country, a secret cave in the African jungle, or his own private asteroid. Apartments and houses are typical examples of this type of Base, but many Bases dedicated to other purposes also have a residential area.

SCIENTIFIC

Some Bases are designed primarily for some sort of scientific purpose, such as studying the astronomy of the X-37 star cluster, delving into the mystic lore of Ylasamid Dynasty to create some new spells, experimenting with particle physics, or building robots and other gadgets. Bases devoted to scientific pursuits have lots of Laboratories (see the *Skills* section of this chapter), but even a Base devoted to some other purpose may have a Lab or two.

SECURITY

A Security-oriented base protects something or someone. It may do this by confining dangerous people or things (prisons, hazardous waste storage facilities), by monitoring or watching something valuable or dangerous (guard towers, the Monster Island Observation Post), or by allowing a character to hide from his enemies (safe houses, bolt holes, and secret lairs). Security Bases often overlap to some extent with Tactical Bases, but many have no weapons or military function at all.

STORAGE

“That’s the whole meaning of life, isn’t it, trying to find a place to put your stuff?” George Carlin asks, and he’s right — one major purpose for many Bases is storage. Characters tend to accumulate a lot of goodies during their careers, such as weapons and armor, trophies from defeated enemies, doomsday devices, tomes of lore, spare vehicles, and Things Man Was Not Meant To Possess. So they need a place to put them, possibly a place with vaults or other special facilities for storing valuable, strange, or dangerous items.

TACTICAL

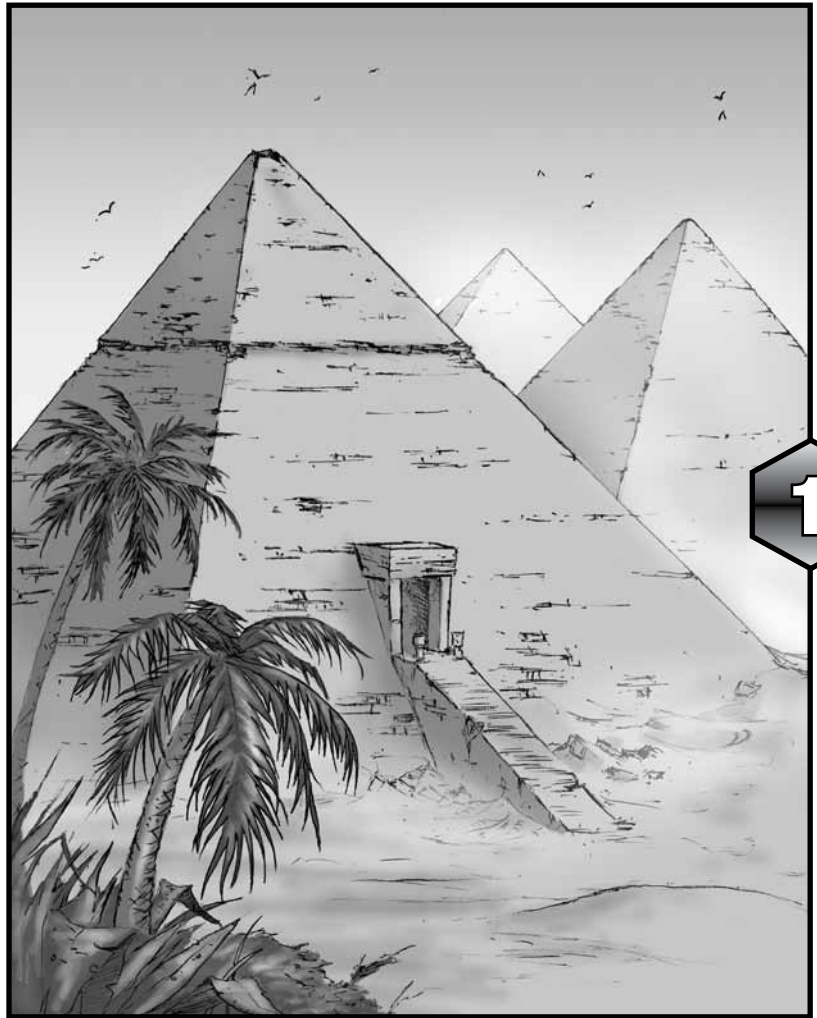
In roleplaying games, one of the most common purposes for a Base is tactical (or strategic) — it serves some sort of military or quasi-military function. It might guard valuable territory, be a conqueror’s foothold in the region, or protect valuable shipping lanes. But whatever its purpose, it tends to have thick walls, lots of weapons, and heavy security. Someone who wants to destroy or capture it is probably going to have a real fight on his hands.

When Is A Base Not A Base?

In some campaigns, things exist which look like, and maybe even act like, bases. But that doesn’t necessarily mean you should build them using the Base rules. When considering how to build a “base,” you may want to think about the following issues.

IS IT A FOCUS?

While some Base equipment is built using the Limitation *Focus* (see the *Power Limitations* section of this chapter), Bases themselves are not Foci, and typically cannot take that Limitation for things such their Characteristics. However, using the special effects principle at the heart of the *HERO System*, it’s possible to build some “Bases” using rules other than the Base rules and instead thinking of them as large Immobile Foci. For example, suppose a character has a large library that he uses to research things he needs to know. Instead of building the library as a Base, he might simply buy it as KS: Everything 30-, OIF Immobile.



In deciding whether to buy something as a Base or a Focus, you should consider its general purpose for and usefulness to the character. If a “Base” really only serves one limited purpose or provides one specific sort of “ability” for a character, it’s more likely that it can be built as an Immobile Focus or in some other way. A true Base tends to allow a character to do multiple things or gives him multiple resources to draw upon.

IS IT A VEHICLE?

In some genres, particularly Superheroes and Science Fiction, it’s possible to have vehicles that are so enormous that the distinction between Base and Vehicle begins to blur. Generally speaking, the easiest way to make the determination of which *HERO System* rules to use is whether the object in question is designed to move on a regular basis. Vehicles move frequently; that’s their purpose, to carry people and things from one place to another. Bases may occasionally have a Movement Power (see page 27), but generally they’re firmly set in place and never go anywhere. If an object has prominent Movement Powers of some sort, it’s probably a Vehicle, not a Base, no matter how big it is.

BASE CHARACTERISTICS

1 **W**hen you create a Base, the first step is to determine what Characteristics it has and buy them to the level you want. Bases may, with the GM's permission, sell back Characteristics (to, for example, represent a Base that's weaker or more fragile than normal). The minimum cost of any Base, no matter what its Characteristics, equipment, or Complications, is 1 Character Point.

Bases have four Characteristics: Size, BODY, PD, and ED. Additionally, they have to pay Character Points for their Location, so that can be considered a Characteristic in much the same way Size is.

Bases do not have SPD or DEX. For purposes of determining the END usage of Constant Powers and the like, assume all Bases have SPD 3 (see page 150).

SIZE COMPARISONS

Size Category	Comparison
13	Approximate volume of the Empire State Building (1.05 million m ³)
19	Floor space of the Empire State Building (200,500 m ²)
29	Approximate area of Great Britain (200,000 km ²)
31	Approximate area of Canada (10 million km ²)
31	Approximate area of the United States (9.6 million km ²)
31	Approximate area of Australia (7.7 million km ²)
31	Approximate area of Europe (10 million km ²)
32	Approximate area of Africa (30 million km ²)
32	Approximate area of Asia (45 million km ²)
32	Approximate area of North America (25 million km ²)
32	Approximate area of South America (18 million km ²)
38	Approximate volume of the Moon (22 billion km ³)
42	Approximate surface area of the Moon (38 million km ²)
40	Approximate volume of Mars (160 billion km ³)
43	Approximate surface space of Mars (145 million km ²)
43	Approximate volume of Earth (1.08 trillion km ³)
44	Approximate surface space of Earth (510 million km ² — 149 million km ² of land and 361 million km ² of water)
53	Approximate volume of Jupiter (1.43 quintillion km ³)
63	Approximate surface space of Jupiter (62 trillion km ²)
68	Approximate surface space of a ringworld (1.6 quadrillion km ² , assuming a 150 million km [93 million mile] radius, a 940 million km [584 million mile] "circumference," and a 1,600 km [1,000 mile] "width" from side to side on the surface)
74	Approximate interior surface area of a Dyson sphere (280 quadrillion km ² , assuming a 150 million km [93 million mile] radius)

BASE CHARACTERISTICS

Characteristic	Starting Value	Cost
Size	8 x 4 x 4m	See Base Size Table
BODY	2	1
PD	2	See text
ED	2	See text
Location	Special	See Base Location Table

SIZE

Size 0 covers any Base *up to* 8x4x4 meters. If a character wants a smaller Base for some reason, just define the dimensions. Size 0 costs 1 Character Point. You can increase a base's Size by buying more Size, as indicated on the Base Size Table.

Each increment of Size (beyond the first) costs 2 Character Points. At the GM's option, a character could buy a Base that's no more than half the Size difference between two steps on the table for 1 Character Point (this is most useful when characters want to buy extremely large Bases, such as planets, and are trying to align the Size cost with real-world data, as in the accompanying Size Comparison table). If the GM doesn't permit this, then for any Base higher than the listed dimensions, a character has to round up to the next highest Size (and cost).

With the GM's permission, characters can buy Size as a Power using the *Characteristics Power* (6E1 178). For example, if a character wanted to create a dimensionally-engineered Base that's bigger on the inside than on the outside, the GM might let him simulate that by purchasing extra Size with the *Invisible Power Effects Advantage*.

SURFACE AREA VERSUS VOLUME

When a character builds or buys a large Base, the issue of surface area versus volume comes into play. The Base Size Table indicates the length, width, height, and volume of each Size category of a Base. As shown in the accompanying Size Comparisons text box, the Size category of a Base can vary depending on whether you buy Size based on volume or on surface area.

In this case, the character should pay for Size based on the primary way he intends to use the Base. If the character and other people mainly live on and use the surface (as with most planets, ringworlds, Dyson spheres, and the like), buy Size based on the surface area of the Base. If people mainly live in and use most or all of the interior space (as with some space stations, buildings, and so on), the GM can, if desired, permit a character to buy Size based on the volume of the Base. However, in cases where the usable floor space is what really matters (as in a skyscraper), typically it's best to buy Size based on area (which tends to be more expensive than buying based on volume).

DIMENSIONS

The dimensions (Length, Width, Height, and Volume) in the Base Size Table are *guidelines*. Few Bases fit the listed dimensions exactly. When you're designing a Base that doesn't fit all the dimensions of a Size category with reasonable precision, choose the Size category based on the Base's most prominent dimension (typically Length). Bases do not have a Mass for game purposes, since that's generally irrelevant when dealing with them, but if you need to know a Base's Mass, consult the Vehicle Size Table (6E2 187), find a Vehicle that's as close in size to the Base as possible, and use the listed Mass.

If appropriate, you can choose a Size category for a Base as a "special effect" of its size, configuration, mass, or other aspects, but then redefine some of those attributes to better suit the Base you have in mind. As long as you don't change the game effects involved (such as the OCV+ modifier), how you define the Base's Size-related attributes usually doesn't matter (provided you remain relatively "realistic," and you keep the special effect in mind).

In that same spirit, remember that the "example" bases in this book are just that — examples. Many different types of Bases fit into each Size category, and many Bases come in multiple Sizes. If you want to create a smaller space station or a larger castle, go right ahead.

FLOOR PLANS

The character who creates a Base determines its internal arrangement. He should make sure the base has all the facilities required (such as bathrooms; see page 36).

A character can distribute the area of his base vertically as well as horizontally. Many Bases have several floors, especially in skyscrapers. He could even decide that some portion of the Base's Size is in a different location. For example, a character wants to have a stable which contains most of his horses and chariots far from his castle. He could create a Base with a volume of 125,000 cubic meters, set aside 25,000 for the stable, and use the remaining 100,000 for the castle. If a character "splits" his Base this way, he can also split the Base's grounds (see below); the split need not be proportional.

In short: a character buys the overall space his Base has, and then can arrange that space as he sees fit (and the GM allows). For example, to have a five-story Base, with each story having a 40 x 20 x 5 meter area, a character should buy 20,000 cubic meters of Size (costing him 16 points).

GROUND

A base's Size represents a building or similar installation. In addition, a Base can have grounds or a yard equal to the size of the Base itself. You can double the area of the grounds for +1 Character Point; this has no effect on the Size of the Base itself. Of course, a Base cannot have unlimited tracts of land, especially in an urban setting; the GM is the final arbiter as to whether the grounds surrounding a Base would "fit."

The grounds have neither walls, rooms, nor buildings (any of those things would be part of the Base itself, just in a different location than the main Base as described above). At the builder's options, the grounds can be surrounded by 2 BODY, 2 PD/2 ED fence (you can increase this BODY and defense like the BODY and defense of the rest of the Base). The GM could also permit some trivial buildings on the grounds, such as an outhouse or a toolshed. Powers bought for a Base as a whole (such as Life Support, artificial gravity, or enhanced security) do not apply to the grounds.

A Base does not have to have Grounds, but do consider their virtues. They can accommodate swimming pools, picnic areas, parking lots, landing strips, shooting ranges, riding areas, waterfalls, and many other features that don't add to a Base's defensibility or purpose but make it a much nicer place to visit or live.

Grounds are most common in Bases located on the surface of land. However, any Base can have grounds; they just need to be properly defined given the environment, the technology involved, and other factors.

MAZES AND LABYRINTHS

In Fantasy and some other genres characters occasionally encounter Bases that feature mazes or labyrinths. (The two terms are used interchangeably, but are technically different: a labyrinth has only a single winding passage to a center chamber and isn't particularly difficult to get into or out of; a maze has many branching paths and choices and can be devilishly difficult to get through.) The eponymous Labyrinth of Greek myth and the Tombs of Atuan in Ursula K. LeGuin's book of the same name are just two of the better-known examples.

Generally speaking, a maze or labyrinth doesn't cost Character Points; it's just one of the many ways a character can arrange the available floor space of his Base. However, if appropriate a Base builder might want to (or be required to) define it as a Change Environment that imposes PER Rolls on Bump Of Direction, or the like.



BASE SIZE TABLE

Cost	Size	Length	Width	Height	Volume	OCV+
1	0	8m	4m	4m	125m ³	+4
2	1	10m	6m	6m	360m ³	+4
4	2	12.5m	6.4m	6.4m	500m ³	+5
6	3	16m	8m	8m	1000m ³	+6
8	4	20m	10m	10m	2000m ³	+6
10	5	25m	12.5m	12.5m	4000m ³	+7
12	6	32m	16m	16m	8000m ³	+8
14	7	40m	20m	20m	16000m ³	+8
16	8	50m	25m	25m	32000m ³	+9
18	9	64m	32m	32m	64000m ³	+10
20	10	80m	40m	40m	125000m ³	+10
22	11	100m	50m	50m	250000m ³	+11
24	12	125m	64m	64m	500000m ³	+12
26	13	160m	80m	80m	1 mil m ³	+12
28	14	200m	100m	100m	2 mil m ³	+13
30	15	250m	125m	125m	4 mil m ³	+14
32	16	320m	160m	160m	8 mil m ³	+14
34	17	400m	200m	200m	16 mil m ³	+15
36	18	500m	250m	250m	32 mil m ³	+16
38	19	1 km	500m	500m	64 mil m ³	+16
40	20	2 km	1 km	1 km	125 mil m ³	+17
42	21	4 km	2 km	2 km	250 mil m ³	+18
44	22	8 km	4 km	4 km	500 mil m ³	+18
46	23	16 km	8 km	8 km	1 bil m ³	+19
48	24	32 km	16 km	16 km	2 bil m ³	+20
50	25	64 km	32 km	32 km	4 bil m ³	+20
52	26	125 km	64 km	64 km	8 bil m ³	+21
54	27	250 km	125 km	125 km	16 bil m ³	+22
56	28	500 km	250 km	250 km	32 bil m ³	+22
58	29	1000 km	500 km	500 km	64 bil m ³	+23
60	30	2000 km	1000 km	1000 km	125 bil m ³	+24
62	31	4000 km	2000 km	2000 km	250 bil m ³	+24
64	32	8000 km	4000 km	4000 km	500 bil m ³	+25
66	33	16000 km	8000 km	8000 km	1 tril m ³	+26
68	34	32000 km	16000 km	16000 km	2 tril m ³	+26
70	35	64000 km	32000 km	32000 km	4 tril m ³	+27
72	36	125000 km	64000 km	64000 km	8 tril m ³	+28
74	37	250000 km	125000 km	125000 km	16 tril m ³	+28
76	38	500000 km	250000 km	250000 km	32 tril m ³	+29
78	39	1 mil km	500000 km	500000 km	64 tril m ³	+30
80	40	2 mil km	1 mil km	1 mil km	125 tril m ³	+30
82	41	4 mil km	2 mil km	2 mil km	250 tril m ³	+31
84	42	8 mil km	4 mil km	4 mil km	500 tril m ³	+32
86	43	16 mil km	8 mil km	8 mil km	1 quad m ³	+32
88	44	32 mil km	16 mil km	16 mil km	2 quad m ³	+32
90	45	64 mil km	32 mil km	32 mil km	4 quad m ³	+33
92	46	125 mil km	64 mil km	64 mil km	8 quad m ³	+34
94	47	250 mil km	125 mil km	125 mil km	16 quad m ³	+34
96	48	500 mil km	250 mil km	250 mil km	32 quad m ³	+35
98	49	1 bil km	500 mil km	500 mil km	64 quad m ³	+36
100	50	2 bil km	1 bil km	1 bil km	125 quad m ³	+36



BASE SIZE TABLE (CONTINUED)

Cost	Size	Length	Width	Height	Volume	OCV+
102	51	4 bil km	2 bil km	2 bil km	250 quad m ³	+37
104	52	8 bil km	4 bil km	4 bil km	500 quad m ³	+38
106	53	16 bil km	8 bil km	8 bil km	1 quin m ³	+38
108	54	32 bil km	16 bil km	16 bil km	2 quin m ³	+39
110	55	64 bil km	32 bil km	32 bil km	4 quin m ³	+40
112	56	125 bil km	64 bil km	64 bil km	8 quin m ³	+40
114	57	250 bil km	125 bil km	125 bil km	16 quin m ³	+41
116	58	500 bil km	250 bil km	250 bil km	32 quin m ³	+42
118	59	1 tril km	500 bil km	500 bil km	64 quin m ³	+42
120	60	2 tril km	1 tril km	1 tril km	125 quin m ³	+43
122	61	4 tril km	2 tril km	2 tril km	250 quin m ³	+44
124	62	8 tril km	4 tril km	4 tril km	500 quin m ³	+44
126	63	16 tril km	8 tril km	8 tril km	1 hex m ³	+45
128	64	32 tril km	16 tril km	16 tril km	2 hex m ³	+46
130	65	64 tril km	32 tril km	32 tril km	4 hex m ³	+46
132	66	125 tril km	64 tril km	64 tril km	8 hex m ³	+47
134	67	250 tril km	125 tril km	125 tril km	16 hex m ³	+48
136	68	500 tril km	250 tril km	250 tril km	32 hex m ³	+48
138	69	1 quad km	500 tril km	500 tril km	64 hex m ³	+49
140	70	2 quad km	1 quad km	1 quad km	125 hex m ³	+50
142	71	4 quad km	2 quad km	2 quad km	250 hex m ³	+50
144	72	8 quad km	4 quad km	4 quad km	500 hex m ³	+51
146	73	16 quad km	8 quad km	8 quad km	1 sep m ³	+52
148	74	32 quad km	16 quad km	16 quad km	2 sep m ³	+52
150	75	64 quad km	32 quad km	32 quad km	4 sep m ³	+53
152	76	125 quad km	64 quad km	64 quad km	8 sep m ³	+54
154	77	250 quad km	125 quad km	125 quad km	16 sep m ³	+54
156	78	500 quad km	250 quad km	250 quad km	32 sep m ³	+55
158	79	1 quin km	500 quad km	500 quad km	64 sep m ³	+56
160	80	2 quin km	1 quin km	1 quin km	125 sep m ³	+56
162	81	4 quin km	2 quin km	2 quin km	250 sep m ³	+57
164	82	8 quin km	4 quin km	4 quin km	500 sep m ³	+58
166	83	16 quin km	8 quin km	8 quin km	1 oct m ³	+58
168	84	32 quin km	16 quin km	16 quin km	2 oct m ³	+59
170	85	64 quin km	32 quin km	32 quin km	4 oct m ³	+60
172	86	125 quin km	64 quin km	64 quin km	8 oct m ³	+60
174	87	250 quin km	125 quin km	125 quin km	16 oct m ³	+61
176	88	500 quin km	250 quin km	250 quin km	32 oct m ³	+62
178	89	1 hex km	500 quin km	500 quin km	64 oct m ³	+62
180	90	2 hex km	1 hex km	1 hex km	125 oct m ³	+63
182	91	4 hex km	2 hex km	2 hex km	250 oct m ³	+64
184	92	8 hex km	4 hex km	4 hex km	500 oct m ³	+64
186	93	16 hex km	8 hex km	8 hex km	1 non m ³	+65
188	94	32 hex km	16 hex km	16 hex km	2 non m ³	+66
190	95	64 hex km	32 hex km	32 hex km	4 non m ³	+66
192	96	125 hex km	64 hex km	64 hex km	8 non m ³	+67
194	97	250 hex km	125 hex km	125 hex km	16 non m ³	+68
196	98	500 hex km	250 hex km	250 hex km	32 non m ³	+68
198	99	1 sep km	500 hex km	500 hex km	64 non m ³	+69
200	100	2 sep km	1 sep km	1 sep km	125 non m ³	+70

mil: million **bil:** billion **tril:** trillion **quad:** quadrillion **quin:** quintillion

hex: hextrillion (a.k.a. sextillion) **sep:** septillion **oct:** octillion **non:** nonillion

OCV+: This is the OCV bonus attackers have to hit the Base (see *Target Size*, 6E2 51). Bases do not have OCV.



DETAILED SMALLER BASE SIZE TABLE I

Cost	Size	Length	Width	Height	Volume	OCV+
1	0	8m	4m	4m	125m ³	+4
2	1	10m	6m	6m	360m ³	+4
3	1.5	11.25m	6.2m	6.2m	430m ³	+5
4	2	12.5m	6.4m	6.4m	500m ³	+5
5	2.5	14m	7.2m	7.2m	725m ³	+5
6	3	16m	8m	8m	1000m ³	+6
7	3.5	18m	9m	9m	1450m ³	+6
8	4	20m	10m	10m	2000m ³	+6
9	4.5	23m	11.25m	11.25m	2900m ³	+7
10	5	25m	12.5m	12.5m	4000m ³	+7
11	5.5	29m	14m	14m	5700m ³	+7
12	6	32m	16m	16m	8000m ³	+8
13	6.5	36m	18m	18m	11660m ³	+8
14	7	40m	20m	20m	16000m ³	+8
15	7.5	45m	23m	23m	23800m ³	+9
16	8	50m	25m	25m	32000m ³	+9
17	8.5	57m	29m	29m	48000m ³	+9
18	9	64m	32m	32m	64000m ³	+10
19	9.5	72m	36m	36m	93300m ³	+10
20	10	80m	40m	40m	125000m ³	+10
21	10.5	90m	45m	45m	182250m ³	+11
22	11	100m	50m	50m	250000m ³	+11
23	11.5	113m	57m	57m	367000m ³	+11
24	12	125m	64m	64m	500000m ³	+12
25	12.5	143m	72m	72m	750000m ³	+12
26	13	160m	80m	80m	1 mil m ³	+12
27	13.5	180m	90m	90m	1.5 mil m ³	+13
28	14	200m	100m	100m	2 mil m ³	+13
29	14.5	225m	113m	113m	3 mil m ³	+13
30	15	250m	125m	125m	4 mil m ³	+14
31	15.5	285m	143m	143m	6 mil m ³	+14
32	16	320m	160m	160m	8 mil m ³	+14
33	16.5	360m	180m	180m	12 mil m ³	+15
34	17	400m	200m	200m	16 mil m ³	+15
35	17.5	450m	225m	225m	24 mil m ³	+15
36	18	500m	250m	250m	32 mil m ³	+16
37	18.5	750m	375m	375m	48 mil m ³	+16
38	19	1 km	500m	500m	64 mil m ³	+16
39	19.5	1.5 km	.75 km	.75 km	96 mil m ³	+17
40	20	2 km	1 km	1 km	125 mil m ³	+17

DETAILED SMALLER BASE SIZE TABLE II

Cost	Size	Length	Width	Height	Volume	OCV+
1	0	5m	2.5m	2.5m	31m ³	+2
2	1	10m	5m	5m	250m ³	+2
4	2	15m	7.5m	7.5m	844m ³	+3
6	3	20m	10m	10m	2000m ³	+3
8	4	25m	12.5m	12.5m	4000m ³	+4
10	5	30m	15m	15m	6750m ³	+4
12	6	35m	17.5m	17.5m	10750m ³	+5
14	7	40m	20m	20m	16000m ³	+5
16	8	45m	22.5m	22.5m	24000m ³	+6
18	9	50m	25m	25m	32000m ³	+6
20	10	55m	27.5m	27.5m	43000m ³	+7
22	11	60m	30m	30m	54000m ³	+7
24	12	65m	32.5m	32.5m	70000m ³	+8
26	13	70m	35m	35m	85750m ³	+8
28	14	75m	37.5m	37.5m	105000m ³	+9
30	15	80m	40m	40m	125000m ³	+9
32	16	85m	42.5m	42.5m	153000m ³	+10
34	17	90m	45m	45m	182250m ³	+10
36	18	95m	47.5m	47.5m	215000m ³	+11
38	19	100m	50m	50m	250000m ³	+11
40	20	105m	52.5m	52.5m	290000m ³	+12

ALTERNATE WAYS OF BUYING SIZE

For some campaigns, the standard rules for buying Size may not be quite what the GM or players want. Here are two alternatives.

PRECISE CUBIC SPACE

The standard Size categories increase so much from one to the next that it's easy for the designer of a large Base to end up paying for a lot of space he doesn't need. One way around this is to change it so that characters pay on something closer to a per-meter basis: every 10m (or fraction thereof) of length, width, or height costs 1/10 Character Point (with a minimum cost of 1 Character Point for each of the three dimensions). This can quickly wind up costing a lot of Character Points compared to the standard Size rules, but the precision may suit some campaigns.

Alternatively, the GM can let characters buy Bases on volume, then organize the resulting space however they prefer: 1 Character Point per 100 cubic meters of volume.

Using either method, the GM could increase the amount (or decrease the cost) in campaigns featuring very large Bases.

DETAILED SMALLER BASES

The Base Size Table covers Bases of any dimensions, from closet-sized to Bases that dwarf jovian planets. However, most characters in most campaigns aren't likely to want or need Bases larger than about Size 20. Therefore some GMs may prefer more detailed rules covering that end of the Base spectrum. The accompanying tables offer two possible solutions for smaller Bases, but the GM can devise a campaign-specific method if he prefers.

BODY

A Base's BODY indicates the structural integrity of the average wall in the Base. Bases start out with only 2 BODY, which roughly equals the strength of the average wood or wood-and-plaster wall in most buildings. Each +1 BODY costs 1 Character Point; this BODY applies to the entire Base.

A Base's BODY applies to every wall in its area, both exterior and interior. See 6E2 172-73, or the Wall Table on page 55 of this book, for guidelines on how much BODY and defense walls should have based on their thickness and materials. If a Base has different types of walls (for example, sturdy brick walls on the exterior, but wood and plaster walls inside), buy the lowest amount of BODY of any type of wall throughout the Base, then buy the tougher walls' additional BODY with the *Partial Coverage Limitation* (page 31).

If appropriate, characters may apply the *Partial Coverage Limitation* (page 31) to BODY for other purposes. This would allow characters to, for example, make one room in a building extra-sturdy (a vault, perhaps).

OVERALL BASE BODY

Base BODY is determined from the integrity of the average wall, and not the overall material bulk or composition of the building, since attacks against a building are typically made against a specific wall (or other feature), not against the building as a whole. The wall BODY rules on 6E2 172-73 describe what happens when a wall's damaged. However, in some situations in some campaigns it may be necessary to know how much BODY damage an overall Base can withstand before being destroyed, Transformed, or the like. For example, a master villain may try to destroy a superteam's headquarters with his Orbital Cannon, or a group of PCs may make a daring high-speed run to fire a star-torpedo down a gargantuan space station's thermal exhaust port and blow it to bits before the space station can use its Mega-Laser to obliterate an entire planet.

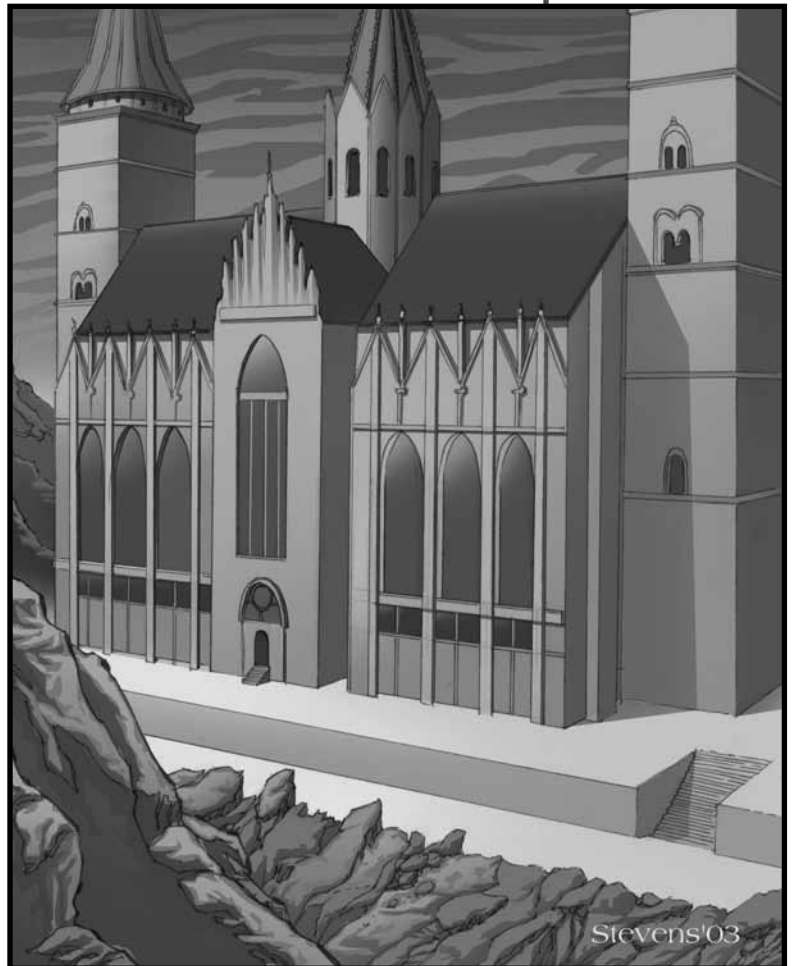
In these situations, the overall BODY of a Base equals its BODY multiplied by its Size (BODY x SIZE). If the Base has bought any extra BODY with *Partial Coverage*, add that in after doing the multiplication; similarly, the GM can increase or decrease the overall BODY number to represent heightened structural strength, masses of material kept within the Base that support it, or other factors.

Example: *The Empire State Building is Size 19 based on its usable floor space. It has BODY 2, since its average interior walls are wood and plaster. However, it has a sturdy steel framework "skeleton" and stone in the foundations and outer walls, so the GM decides it has BODY 3 for purposes of determining the overall BODY needed to destroy it. Therefore it takes $(3 \times 19 =)$ 57 BODY to destroy the Empire State Building.*

The planet Earth is Size 43. It's one-third metallic and two-thirds rock, for an average BODY per 2m x 2m x 2m section of 16. Therefore Earth has an overall BODY of $(16 \times 43 =)$ 688. (Though of course, planets being what they are, characters probably need to destroy them with one big attack, or a series of large attacks, not by digging up one cubic meter of dirt at a time.)

A Base reduced to 0 BODY cannot function, but is not yet fully destroyed — it can be repaired (assuming the GM permits this based on common and dramatic sense). A Base reduced to negative its own BODY is destroyed and cannot be repaired. However, at the GM's option, characters may be able to salvage a few parts or some scrap metal. A Base reduced to negative twice its BODY (for example, -20 for a Base with 10 BODY) is smashed into so many little pieces it lacks any salvage value. See Chapter Six for more information about damaging and destroying Bases.

If a character has split his Base into two or more sections or locations (see *Floor Plans*, above), the Base's "overall BODY" must be proportionately divided between them as well. That way the GM knows how much BODY damage it takes to destroy each "section" of the Base.



BODY OF BASE COMPONENTS

The advanced rules for castle creation (pages 53-60) present a slightly different way of determining a Base's "BODY." Instead of giving the Base a single overall BODY, PD, and ED score, they describe a method of buying each component or section of a Base individually. You can then determine the effect of attacks on that section individually; an attack on a specific wall or tower has no effect on some other wall, tower, or structure.

This system works well for castles, which are a limited category of building with precisely-defined architectural "parts." This sort of system isn't feasible as a general rule for other types of Bases (including nearly all modern-day and Science Fiction Bases), because building types and components become so diverse as to defy easy categorization. However, if the GM's willing to do a little extra work, you can extend this concept to specific Bases in your campaign.

PHYSICAL DEFENSE AND ENERGY DEFENSE

The Physical Defense and Energy Defense of a Base represent the resistance to damage of the materials used to create its average walls. The Wall Table on page 55 indicates the typical PD and ED of various wall materials. If a Base has different types of walls (for example, stone walls on the exterior, but wooden walls inside), buy the lowest amount of PD/ED of any type of wall throughout the Base, then buy the tougher walls' additional PD/ED with the *Partial Coverage* Limitation (page 31).

A Base starts out with 2 PD and 2 ED, which roughly equals the durability of the average wood or wood-and-plaster walls in most buildings. Every +2 points of defense costs 3 Character Points. For example, for 3 Character Points a Base could have +2 PD, +2 ED, or +1 PD/+1 ED. The PD and ED of Bases are Resistant.

If appropriate, characters may apply the *Partial Coverage* Limitation (page 31) to PD/ED in other ways. This would allow characters to, for example, make one room in a building particularly tough (such as a cage intended to hold immensely strong monsters).

"Realistically," if improving a Base's defenses means applying armor, that increases a Base's weight tremendously. If you want to at least nod in the direction of "realism," you should take that into account. A Base that hovers in an atmosphere or floats in water may not be able to have as much armor as a ground Base or space station, since all that extra weight makes it hard to remain aloft/afloat. (On the other hand, in some campaigns modern construction materials, gravitic compensators, and the like may allow characters to build tough but lightweight Bases.)

See Chapter Six for more information about attacking, damaging, and destroying Bases.

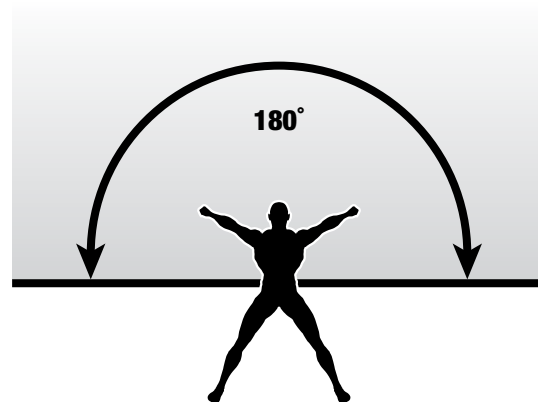
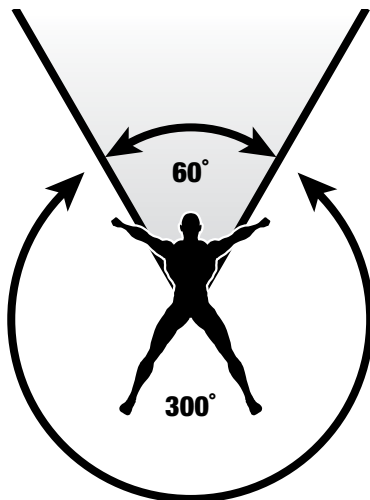
DEFENSE LIMITATIONS

Characters can apply the following Limitations to a Base's defense:

LIMITED COVERAGE (-0 TO -1½)

A Base's PD and ED normally protect all parts of the Base, but a character can buy defense that only protects the Base from attacks from a certain direction. This Limitation, which is applied only to the defense in the limited area, depends on the size of the area protected, whether the defense protects the occupants, and other factors (see accompanying table). You may apply all appropriate aspects of the Limitation; for example, if a Base has a defense that only covers 60 Degrees and also does not protect the occupants, the Limitation is worth (-1 plus -½) -1½.

PD or ED with the "Does Not Protect Occupants" form of this Limitation provides no protection for the people inside the Base. Some Bases, such as most castles, sometimes protect their occupants, and sometimes not, depending on where the character is in the Base in relation to the attack. To simulate this, take the Limitation at the -¼ level.



LIMITED COVERAGE TABLE

Coverage Protects	Limitation
0 Degrees (less than 2m x 2m x 2m worth of space on the Base)	-1½
1-60 Degrees	-1
61-180 Degrees)	-½
181-300 Degrees	-¼
Nearly 360 Degrees (all but a small defined section of the Base)	-0
Exterior walls only	-¼
Only on the same horizontal Level	¼ more Limitation
Protection For Occupants	Limitation
Coverage does not protect occupants	½ more Limitation
Coverage does not protect some occupants	¼ more Limitation

Technically, the proper way to buy Limited Coverage would be to sell back a Base's natural PD/ED and then buy the defense again as a Power with a Limitation (since Characteristics by themselves generally can't be Limited). However, for ease of reference and game play, the GM can allow Base designers to apply the Limitation to whatever defense they purchase for a Base, then have it apply to all of the Base's defense.

Example: *The Star Empire builds some orbital defense stations. Overall, Imperial Defense Outposts have PD 10/ED 10, but the designers want some extra defense on the sides of the base facing away from the planet. They buy +8 PD and ED (24 Active Points), Limited Coverage (180 Degrees on front of base; -½) (total cost: 16 points).*

TRANSPARENCY AND OPENINGS

Normally, a Base's PD and ED are opaque; characters can't see through them, but neither can attackers. With the GM's permission, a character may define some or all of a Base's defenses as transparent. This allows for the creation of things like windshields and windows — Base occupants can see out, outsiders can see in. This may expose the occupants to Sight Group Flash attacks and the like.

Regardless of how it's defined, for game purposes a transparent section of defense provides the same defense as the rest of the Base's defense. For some Bases, such as ordinary houses, this may not make much sense; a building's glass windows usually aren't as protective as its brick walls. To represent this, apply the *Limited Coverage* Limitation (typically at the -¼ or -0 level, since most of the Base remains protected). Attacks from the unprotected angle can affect the Base — or, more likely, the interior of the Base — without suffering any reduction in effect.

Alternately, a Base may have an overall amount of defense that applies to the entire Base, with heavier armor for all but one section bought with the *Limited Coverage* Limitation.

BASE LOCATION TABLE

Location	Cost
City	0
Suburb	5
Distant	10
Modifiers	
Floating in water	+5
Deep Wilderness	+5
Airborne	+10
Underwater	+15
Underground	+20
In Space	+25
Another Dimension	+30

LOCATION

The location of the base may affect its price. This reflects the availability of land, transporting building materials, ease of maintenance, and so forth. The standard Base is located in or near a city or equivalent population center. If the character distributes the area of his Base among two or more locations (see below), determine the location cost from the most expensive of the locations (unless the GM rules otherwise).

City: The Base is located in a major city in the campaign setting (usually the city where the campaign takes place), and is easily accessible to PCs, their enemies, the authorities, ordinary people, and the like.

Suburb: The Base is close to the city, but not actually within the city limits. It may take some time for characters to get from the Base to events happening in the city, and vice-versa.

Distant: The Base is far away from the city. Such isolation makes the Base very private and secure from unexpected visitors. However, characters cannot reach the city quickly unless they have a very fast transportation system.

Floating In Water: The Base is on a ship or raft. This usually makes it harder to reach the Base, but also makes the Base susceptible to waves, hurricanes, sea monsters, and the like.

Deep Wilderness: The Base is located in deep wilderness, like the Arctic, the Amazon jungle, a mountaintop in the Himalayas, a remote island, or someplace similar. It enjoys great solitude, but the night life is very dull. The Base may need Life Support to protect the residents from harsh local conditions.

Airborne: The Base is suspended above the ground by some device (but it's still immobile; if you want a mobile flying "base," design a large Vehicle instead).



ALTERNATE BASE LOCATION COST I

Location	Cost
City	10
Suburb	5
Distant	0
Modifiers	
Floating in water	+0
Deep Wilderness	+0
Airborne	-5
Underwater	-10
Underground	+0
In Space	-15
Another Dimension	-20

ALTERNATE BASE LOCATION COST II

Type Of Location	Cost (Security)	Cost (Convenience)	Examples
Extremely Isolated	40	0	Outer space, another dimension
Very Isolated	30	10	Deep wilderness, underwater, airborne away from a city
Average Isolation	20	20	Suburb underground, airborne above a city
Poor Isolation	10	30	City underground, suburb aboveground
Very Poor Isolation	0	40	City aboveground

ALTERNATE BASE LOCATION COST III

Location	Cost (Security)	Cost (Convenience)	Location	Cost (Security)	Cost (Convenience)
City			Underwater		
City center	-5	10	Within 30m (100 feet) of surface	+12	-8
“Average” location	0	7	Within 300m (1,000 feet) of surface	+15	-10
Near the edge of town	0	6	Within 600m (2,000 feet) of surface	+18	-12
Suburb			Within 1,200m (4,000 feet) of surface	+20	-15
Very close suburb	3	5	Within 2,400m (8,000 feet) of surface	+23	-18
Close suburb	5	3	Underground		
Distant suburb	7	1	Within 30m (100 feet) of surface	+20	+0
Distant			Within 300m (1,000 feet) of surface	+23	-3
Within 6 hours’ travel of city	8	0	Within 600m (2,000 feet) of surface	+25	-5
Within 1 Day’s travel of city	9	-1	Within 1,200m (4,000 feet) of surface	+28	-8
Within 1 Week’s travel of city	10	-2	Within 2,400m (8,000 feet) of surface	+30	-10
Modifiers			In Space		
City size			In orbit around inhabited planet	+25	-15
Small (up to 50,000 people)	-2	+2	In solar system with inhabitants	+28	-18
Average (51,000 to 1 million)	-3	+3	In solar system without inhabitants	+30	-20
Metropolis (over 1 million)	-5	+5	In deep space	+32	-23
Floating in water			In very deep space	+35	-25
Within 1 hour’s travel of city	+5	+0	Another Dimension*		
Within 6 hours’ travel of city	+6	-2	Assiah dimensions	+30	-20
Within 1 Day’s travel of city	+7	-3	The Astral Plane, the Four Worlds (Faerie, Babylon, Elysium, the Nether-world), Yetzirah dimensions	+32	-23
Within 1 Week’s travel of city	+8	-5	Briah dimensions	+35	-25
Deep Wilderness			Atziluth dimensions	+40	-28
Very harsh wilderness	+7	-5	*: Examples given are from the multiverse of the Hero Universe; see <i>The Mystic World</i> for further discussion. If you’re using some other dimensional arrangement, consider “Assiah dimensions” as alternate Earths and other dimensions closely related to Earth; “Yetzirah dimensions” to be relatively similar to Earth but to run by magic; “Briah dimensions” as much “further” away, more abstract dimensions; and “Atziluth dimensions” to be the furthest from Earth and the most abstract/archetypical in concept and form.		
Harsh wilderness	+5	-3			
Mild wilderness	+3	+0			
Airborne					
Within 1 hour’s travel of city	+8	+0			
Within 6 hours’ travel of city	+10	-2			
Within 1 Day’s travel of city	+12	-3			
Within 1 Week’s travel of city	+13	-5			

Underwater: The Base is located underwater. This protects it from most waves and winds, but has problems of its own in the form of high pressure, underwater flora and fauna, and the like.

Underground: Just what it sounds like. Really secure, but essentially a hole in the ground.

An Underground Base does not automatically get the BODY and PD/ED of dirt or stone for free, nor does it Concealed for free. It has the defenses, BODY, and Concealment it buys. However, in the interest of “realism,” if necessary the GM should require the Base’s builder to buy BODY and defenses equal to the surrounding materials. Similarly, if a Base has no Concealment, it’s relatively easy for anyone looking in the right place to find it. It’s probably going to take a little longer for someone to find an underground Base as opposed to one sitting out in plain sight, but if the Base isn’t Concealed, a searcher will find it soon enough.

Space: A great view, very stable weather, room to grow — but getting anywhere requires spaceships, teleportation machines, or extremely tough residents.

Another Dimension: For the ultimate in far-out accommodations. This Base is located in another dimension; characters using it need dimensional travel technology or powers to move between the campaign’s home dimension and the base.

OTHER LOCATION RULES

The standard rules for Base location determine the cost largely from how isolated a Base is, and thus how much privacy and security it tends to offer. An aboveground Base in a city is easy for a character’s enemies to find and attack. The further a Base is from a city, or the more isolated it is, the more protected it tends to be, and that costs Character Points.

However, that consideration may not hold true in every campaign. In some games, the difficulty the characters have reaching a distant Base, or getting from the Base to the area(s) where adventures take place, may outweigh the benefits of isolation. In that case, the GM can consider using the Alternate Base Location Cost I table to determine the cost of a Base’s Location depending on convenience. More isolated types of Bases may actually *save* a PC Character Points!

Alternately, the GM can abstract things even further, as shown in the Alternate Base Location Cost II table. Rather than basing the cost on specific types of locations, it establishes five generic categories of “isolation,” from Extremely Isolated to Very Poor Isolation. It then provides a Location cost for both security-oriented and convenience-oriented campaigns.

Another possibility is to provide more detail about Base location through the cost structure. The standard Base location cost for, say, Underground doesn’t differentiate between being underground at basement level and five miles below the surface. The Alternate Base Location Cost III table provides a more specific breakdown of Base location costs.



OTHER BASE ATTRIBUTES

Characteristics alone don't define all the attributes of a Base. Some other factors to consider include:

ACCESSIBILITY

Aside from the accessibility issues posed by a Base's location (see above), in some campaigns the question of how easy it is for people to get to, and get into, a Base may be important. In campaigns stressing security, a Base with restricted access pays for it as a Perk (page 26); in campaigns stressing convenience, inaccessibility may be a Physical Complication (page 33).

PERCEIVABILITY

Normally a Base is relatively easy to find and recognize. Anyone can find the Base with a little research; anyone looking at the Base instantly knows what it is.

However, a Base can be both hard to find and hard to recognize if its builder so desires. To make a Base hard to locate, the builder should purchase the *Concealment* Skill for the Base. This gives the Base a 9- roll for 3 Character Points (Bases get no bonus for INT); you can improve the roll normally. Whenever someone tries to locate the Base, roll the Base's *Concealment* versus the searcher's skill (Computer Programming, *Concealment*, PER Roll, and so forth) in a Skill Versus Skill Contest. If the searcher wins, he finds the Base; otherwise it remains hidden.

You can also disguise a Base's function so that it doesn't necessarily appear to be a Base — it looks like some other facility or object. To do this, purchase the *Disguise* Skill for the Base. This costs 3 Character Points for a 9- roll; you can improve the roll normally. Whenever someone tries to determine the function of the Base, roll his *Disguise* or PER Roll against the Base's *Disguise* in a Skill Versus Skill Contest. If the viewer wins, he knows that the Base is, in fact, a Base; otherwise, the building's function remains hidden. Of course, a curious individual can always go to the Base and ask what its function is.

Disguise typically doesn't apply once someone's inside the Base — from the inside, a Base looks like whatever it really is. At the GM's option, a character can buy *Disguise* twice for his Base, once for the inside and once for the outside. However, sooner or later common and dramatic sense dictate that a Base's true nature and purpose become obvious once someone's inside; the GM determines when that happens regardless of a Base's interior *Disguise* roll.

Example: *Defender* wants to make his Base hard to find and recognize — instead of looking like a superteam's headquarters from the outside, he wants it to look like an ordinary warehouse. To make it hard to locate, he buys *Concealment* on a 16-; this costs $3 + 14 = 17$ points. He then buys *Disguise* on a 15-; this costs $3 + 12 = 15$ points. The Base is now extremely hard to locate, and to most people it looks like a warehouse.

A Base can buy *Concealment* or *Disguise* with the *Partial Coverage* Limitation to represent the fact that some parts of the Base are obvious, but others are not. This is a good way to create, for example, a hidden room within an otherwise ordinary structure.

POWER

Bases can hook up to the normal power grid for no point cost; this provides enough power to run all normal lighting, ventilation, and laboratory needs (in other words, any sort of "Every-base Ability" that a Base doesn't build using the *HERO System* rules and pay Character Points for). If a Base is outside normal power sources (like on the Moon), it has internal generators for these purposes. However, if a Base has to power weapons or other equipment built with game elements that cost END, it needs an *Endurance Reserve* (see page 175 for some examples).



OTHER BASE ABILITIES



Besides their Characteristics, Bases can have other abilities. In most cases this tends to be built-in equipment or similar resources, which are discussed in Chapter Five. After determining the Size of your Base, you can outfit it. Buying resources and equipment costs Character Points, and these points count toward the overall cost of the Base.

Any Base equipment must be self-powered; that is, it must normally cost no END, be bought to 0 END, use Charges, or have an Endurance Reserve. It's possible to have a single large Endurance Reserve for an entire Base; this would simulate the power plant or batteries possessed by many Bases. See *Power Systems*, page 175, for more discussion.

A Base can have a Power, Talent, or other game element that affects all of it. For these all-inclusive abilities, the builder should simply buy the Power with appropriate Advantages and Limitations. Since a Base is considered a single “character,” a character doesn't have to buy a Power that affects all of it (typically a Defense Power or Life Support) with the *Area Of Effect* Advantage, nor must he buy such Powers as *Usable On Others* (anyone in the Base can use them automatically).

SKILLS

Since Bases don't have DEX, INT, or PRE, if a Base buys a Characteristic-based Skill, it gets that Skill at a flat 9- for 3 Character Points. With the GM's permission a Base can buy 8- Familiarities for 1 Character Point, but cannot buy Proficiencies. Bases may not buy Skill Enhancers.

Bases typically have Skills for one or more of four reasons. First, a Skill may be programmed into a Computer that's an integral part of a Base. Second, a Skill may represent a dedicated computer, system, spell, or the like that gives a Base an ability. (In some cases this may be an ability that the inhabitants or a Computer, not the Base itself, use.) For example, an easily-accessed computer database might be bought as a Knowledge Skill for the Base, while one that's enchanted with a self-repairing function might have Electronics or Mechanics. Third, a Skill can represent some innate ability or capability of the Base. For example, the general level of “security” in a Base can be represented with Lockpicking and Security Systems (see below). Fourth, Bases may have

laboratories or similar facilities defined with Skills (see *Laboratories*, below).

Regardless of these special effects and explanations, the GM may rule that many Skills are not appropriate for Bases, based on the campaign, common sense, or dramatic sense. For example, since Bases don't move or fight, Skills such as Acrobatics, Breakfall, Combat Skill Levels, Climbing, and Defense Maneuver generally aren't appropriate for them.

For the sake of simplicity, the text in this section refers to Bases “having” or “using” a Skill. But in many cases a Skill is built into a particular device that's part of a Base and is meant to be used by an inhabitant or Computer — Bases themselves don't have SPD or Actions.

SECURITY SKILLS: LOCKPICKING AND SECURITY SYSTEMS

One way of simulating a Base's level of security is to buy Lockpicking and/or Security Systems for it. Any time an intruder tries to pick a lock in the Base, he has to win a Lockpicking Versus Lockpicking Contest with the Base; if he wants to remain undetected while snooping around, he has to win a Security Systems Versus Security Systems Contest. If the Base's creator wants some locks or areas to be even more secure, he can buy that as bonuses to the roll with the *Partial Coverage* Limitation, or simulate it with penalties imposed via Change Environment.

Caveat: this may make it easy for Base creators to heavily secure their Bases for a relatively cheap cost. The preferred method in many cases is to keep the overall level of security light or non-existent, then make specific locks or areas more secure with Partial Coverage- or Change Environment-based abilities. Similarly, specific types of alarms and security devices (such as motion detectors, arrow projectors, and electric eyebeams) can be bought as specific abilities for specific parts of the Base. See page 169 for some example security devices and locks for Bases.

If appropriate, the GM could extend this concept to similar Skills. A Base could perhaps buy Stealth to counteracts attempts to sneak through it, or Bugging to represent how difficult it is for someone to find a good place to conceal a covert listening device. Systems Operation might reflect the fact that it's hard to send electronic signals in or out of the Base.

TECHNOLOGY SKILLS

Bases might buy some technology-based Skills, primarily Electronics and Mechanics, to represent a “self-healing” function. Making a “repair roll” requires a minimum of 1 Turn, and often more depending on the nature and extent of the damage. For every 10% (or fraction thereof) of its BODY that a damaged part of the Base has lost (or the overall Base’s BODY, for general repairs), there’s a -1 penalty on the roll.

SKILL LEVELS

Although they’re less common than Combat Skill Levels, Bases can take Skill Levels, if appropriate. Typically, if a Base buys a 3-point (or more expensive) Skill Level, the bonus must come from the same source or device. It cannot define +1 with Disguise, Mimicry, and Security Systems, where the Disguise is a camouflage system, the Mimicry part of a PA system, and Security Systems is an electronic override.

If a Base wants to buy bonuses to all Skills associated with a particular Characteristic, typically it must have the Characteristic in question, even if the Skill Levels are intended to assist the operator rather than the Base itself. The GM is the final arbiter of whether a given type of Skill Level is appropriate for a particular Base.

Laboratories

A Base can have one or more *laboratories*. In a game context, a “lab” isn’t necessarily just a room containing equipment needed to research and experiment in the hard sciences — as used here the term means a facility of some sort dedicated to one or more of the following purposes:

- practicing a Skill to maintain or improve a character’s level of proficiency
- conducting research and performing experiments and other tasks pertaining to the Skill
- serving as a Complementary Skill Roll for the character’s Skill

As discussed further below, a “lab” could actually be a room stocked with Disguise equipment, a gym containing equipment for practicing Acrobatics, a set of lockpicking tools and practice locks, or the like.

See also page 185 for suggested costs for labs based on quality.

CREATING A LABORATORY

To build a lab into a Base, simply buy the appropriate Skill. This indicates what the lab’s designed for. You can buy a Familiarity for poor-quality labs, or a standard Skill Roll for better ones. Because Bases don’t have any Characteristics, the base roll for a lab Skill is always 9- (except for Background Skills; see below). Generally speaking, the higher a lab’s Skill Roll, the more advanced it is, the more equipment (and types of equipment) it has, and the more raw materials it’s regularly supplied with.

All labs require a minimum of one cubic meter of space; many need much more than that.

Example: *Because he’s the one who has to design the Base, Defender decides he’s going to build himself an electronics lab. The cost for an electronics lab is 3 Character Points; this gives a lab with an Electronics roll of 9-. Defender buys +8 with the skill; this costs 16 points (total of 19 points). The lab now has a 17- Electronics Roll that serves as a Complementary Skill to anyone doing Electronics research there.*

In some cases, a single facility could serve as a laboratory for multiple Skills. For example, a character could equip a one-room gymnasium to serve as a lab for Acrobatics, Climbing, Martial Arts, and various sports-related PSs. In other words, each lab doesn’t necessarily require its own room, though the minimum size of a lab is one cubic meter per Skill built into it (unless the GM rules otherwise).

If a Base buys a Background Skill (typically to define or create a laboratory) for 2 Character Points, the lab starts with a base Skill Roll of 11-, not the 9- that’s standard for Characteristic-Based Skills for Bases. (Of course, the Base could buy an 8- Familiarity with a Background Skill for only 1 Character Point if it wished, but Bases cannot buy Proficiencies.)

For Skills that don’t involve rolls (such as Auto-fire Skills or Martial Arts), a lab can’t function as a Complementary Skill or the like, nor can the Base use those Skills itself unless the GM rules otherwise. Buying a lab for one of those Skills means the character’s paying for a practice, training, and research area, not a Complementary Skill.

A Base cannot buy a straightforward bonus to a Skill (like “+2 with Security Systems”) and call it a “lab.” Nor can it buy Skill Levels with a Skill and call that a “lab.” To have a lab, a Base must buy the full Skill for that lab as described above. However, after buying a standard lab, a Base could then buy bonuses or Skill Levels for that Skill Roll that only work in that lab, to represent the quality of the facilities (the *Partial Coverage/Only Within Affected Area* Limitation is applied to the bonuses or Skill Levels so that the Base as a whole doesn’t provide the bonus, only the one room that constitutes the lab).

USING A LABORATORY

When a character uses a lab, its roll acts as a Complementary Skill Roll to his own roll. Of course, the lab only helps the character with his own Skill — if he doesn’t have the Skill in the first place the lab does him no good. (Most people couldn’t make heads or tails out of the equipment in Einstein’s laboratory, for example.)

Computers and AIs may also be given control over the laboratories, though of course the Computer or AI must have the requisite Skill to use it. The Computer needs either Extra Limbs, a robot, or a person in the lab to help it use the facility.



LIBRARIES AND DATABASES

Characters who can’t (or don’t want to) buy a true Base, complete with labs and libraries to help them figure things out, can still own a good library or database by buying bonuses to KSs, PSs, and similar Skills with the -2 Limitation *OIF Immobile* (and possibly Extra Time, representing how long it takes to do research). This is a good way for a character to simulate possession of, for example, an extensive library on Criminology: he can buy +5 to his *Criminology* Skill for only 5 points, but he has to have access to the library to get the bonus. A character should buy this bonus separately for each KS, SS, or other Skill he wants to use it for; to obtain general bonuses to any of a group of Skills he should buy Skill Levels (see 6E1 88).

EXAMPLE LABORATORIES

Here are some example descriptions of labs appropriate to the various Skills. These aren't necessarily the only possible types of labs; the GM should encourage characters to be creative when designing labs.

Acrobatics: A gymnasium with vaulting horses, rings, parallel bars, balance beams, tightropes, trampolines, trapezes, and other equipment.

Acting: A theater-like room with a stage where a character can practice his Acting abilities. However, this only works if the character has an audience to observe and critique his performance, and usually some people he has to interact with “in character.” (A high-tech Acting lab might have holograms for the other people, and an AI computer to evaluate the character's work.) An advanced Acting lab might be an entire fake town, populated by actors hired to work there, in which the character can practice various roles and techniques.

Analyze: The type of lab appropriate to Analyze depends on what the character buys the Skill for. For example, an Analyze Technology lab might contain various technological components that someone changes from time to time so the character has to come in and try to determine what the new components are. An Analyze Style (or Analyze Combat Technique) lab might be part of a Martial Arts lab (see below) — the character just has to watch other people fighting and evaluate their abilities, rather than practicing his own fighting abilities.

Animal Handler: A corral, menagerie, or zoo where the character can keep wild animals and work with them to tame them, teach them tricks, and so forth. A wealthy character might have an entire game preserve he could use for these purposes (and perhaps for Survival and Tracking as well).

Autofire Skills: A firing range (possibly including a collection of Autofire weapons) where the character can practice his skills. A simple one might be a long room with a backstop to absorb the bullets and hanging clips to hold paper targets; an advanced one might be an entire obstacle course equipped with targets that move, pop up by surprise from behind cover, and so forth.

Breakfall: A facility equipped with various surfaces onto which the character can practice falling from ledges, balconies, ladders, and so forth. Works well in combination with a Climbing lab. A character without room for so elaborate a facility might have to settle for putting some padding on part of the floor of his Martial Arts lab and letting fellow fighters practice throws on him while he practices avoiding their effects.

Bribery: Similar to an Acting lab, a Bugging lab might be a large facility populated by hired actors, some of whom the character has to try to bribe. The actors respond according to instructions telling them whether to be corrupt, average, hard-nosed, unbribeable, or the like.

Bugging: A simple Bugging lab would be a collection of appropriate tools and basic bugs, plus some phones and other objects a character can practice placing or hiding them in. An advanced one might be an entire fake house, fully furnished, that the character has to sneak into and bug, or which he can sweep for bugs.

Bureaucratics: Similar to an Acting lab, a Bureaucratics lab might be a large facility designed to resemble a government office populated by hired actors, some of whom the character has to try to get information or assistance from. The actors respond according to instructions telling them whether to be helpful, obstructive, lazy, or what have you.

Charm: Generally a Charm lab is just like a Conversation lab (see below), but the character's goal is to make friends with or seduce someone, not get information from him.

Climbing: A room filled with climbing walls, ropes, and other things for a character to climb up.

Combat Driving: A racetrack and/or automotive “obstacle course” where the character can practice driving at high speeds or under difficult conditions. For example, the track might be equipped with high-tech devices that can lay down a sheet of ice, or robot “pedestrians” the character has to avoid.

Combat Piloting: A private airstrip and hangar, plus enough airspace for the character to practice aerial combat. This works best if two characters can practice at once, or one character can fight against a robotic opponent or the like.

Combat Skill Levels: A “combat gymnasium” set up so the character can practice whatever type of combat he bought the lab for. Works well in combination with labs for other Combat Skills.

Since Combat Skill Levels don't involve rolls, and the lab itself generally shouldn't have CSLs it can provide to the Base it's a part of, characters can buy a CSL lab for 1 Character Point for a 2-3 point Combat Skill Level, 2 Character Points for a 5-point CSL, 3 Character Points for an 8-point CSL, and 4 Character Points for a 10-point CSL. It doesn't matter how many CSLs the character himself has, the Base just pays the cost once to represent the extent of the equipment and facilities available for practice and instruction.

Computer Programming: A room with all sorts of computer equipment — CPUs, printers, monitors, and more — where the character can work on programming, hacking, computer security, and other Skill-related tasks.



Concealment: A room (or series of rooms, possibly even an entire fake house or office building) where the character can practice hiding things, or finding things others have hidden.

Contortionist: A collection of ropes, chains, shackles, straitjackets, and other restraints from which the character practices escaping. (Of course, he needs someone to restrain him with them in the first place.) The lab might also include a series of small and/or oddly-shaped spaces a character can practice fitting his body into.

Conversation: Similar to an Acting lab, a Conversation lab might be a large facility designed to resemble just about any sort of area where characters interact socially (such as a bar). It's populated by hired actors, some of whom the character has to try to get information from by making small talk. The actors aren't necessarily aware that someone's trying to get information from them or who will try; they're just supplied with information and a role to play.

Cramming: To the extent characters can practice Cramming, a Cramming lab would typically resemble a lab for KSs or other Skills a character can Cram.

Criminology: A crime lab set up with microscopes, spectrometers, other equipment for analyzing trace evidence, and reference materials. An advanced Criminology lab might have room for fake crime scenes to be constructed so a character can gather evidence from them, then analyze it using the lab's equipment.

Cryptography: A simple Cryptography lab might be nothing more than a quiet place where a character can sit down with pencil and paper to try to crack codes (or create them). An advanced one would be a high-tech facility equipped with advanced computers and communications devices for encrypting and decrypting messages, trying to break enemy codes, and the like.

Deduction: Similar to an Acting lab, a Deduction lab might be a large facility designed to resemble just about any sort of area where characters interact socially. It's populated by hired actors, some of whom have information the character needs; physical clues in the area might also provide information. The character practices his skill by gathering information until he reaches the correct conclusion. Of course, this means someone else (perhaps an AI computer) has to plan and set up the mystery, including fake clues. For characters on a budget, a simpler Deduction lab might be little more than a collection of logic puzzles for the character to work on.

Defense Maneuver: Similar to a Martial Arts lab, a Defense Maneuver lab would be a dojo-like facility where a character could practice fighting against several attackers at once. This means hiring skilled fighters to spar with, or perhaps having robotic or holographic warriors to battle.

Demolitions: A collection of tools and spare parts for building bombs, plus a collection of fake bombs a character can practice disarming.

Disguise: A room equipped with makeup, mirrors, prostheses, the equipment for making prostheses, and so forth. However, in the end the character can't judge the effectiveness of his work without leaving the lab to interact with people and see if they recognize him.

Electronics: A collection of tools and spare parts for building electronic devices, plus a collection of (possibly fake) devices a character can practice disassembling, repairing, and analyzing.

Fast Draw: A collection of weapons and things to draw them from so the character can practice his fast-drawing techniques from a variety of angles and placements.

Forensic Medicine: A coroner's operating room where a character can practice autopsying and analyzing bodies, store bodies for future practice, and so forth.

Forgery: A facility equipped with the supplies needed for the type of Forgery the character practices — printing presses and such for Money; easels, canvases, paints, kilns, and raw materials for Art Objects; and so forth.

Gambling: A simple Gambling lab might be little more than a room with a card table. An advanced one could be a fake casino filled with craps, blackjack, and baccarat tables. In either case, the character needs people to play against; the latter type of lab requires hiring a lot of actors and support personnel to work in the "casino" and give it an authentic feel. If the campaign has sufficiently advanced technology, the character might be able to play against robots or holograms... but for best results he should interact with real people.

High Society: Creating a High Society lab is difficult; it's not likely members of the upper crust are going to willingly come help a character polish his social skills. The best a character can do is something similar to a Conversation lab — a facility, perhaps tricked out to look like a high-class club or resort, where a character interacts with actors hired to pretend to be wealthy and influential people.

Interrogation: The crudest form of Interrogation lab is little more than a room with a chair to tie a captive to and light provided by a single bare bulb or torch. More advanced ones include fully-stocked torture chambers, rooms equipped with lie detectors, truth sera, and other advanced sensory devices, and facilities designed to isolate and psychologically/physically stress a captive so he's more likely to break.

Inventor: An Inventor lab is part of some other relevant lab, such as an Electronics lab or Magic lab, since Inventor by itself can't do anything. The Inventor part of the lab includes advanced tools, components, and reference materials to help the character with his tinkering.

Knowledge Skill: Knowledge Skill labs are libraries — collections of books and other reference materials (such as an Internet connection) pertaining to the subject in question.

Language: Language labs are like KS labs, collections of reference materials. They may also include audio equipment for listening to tapes of someone speaking the language, and perhaps native speakers who can converse with the character in the language he's learning or practicing.

Lipreading: A Lipreading lab at its simplest is just a room where the character can sit down with another person, block his own hearing, and then practice reading the other person's lips as that person speaks. A more advanced version would be like a Conversation lab — a facility where a character could interact with actors in a faux social situation and try to read their lips.

Lockpicking: A collection of tools and practice locks, plus spare parts for building more locks if necessary. An advanced Lockpicking lab might be set up to allow a character to practice his craft under unusual circumstances (such as when hanging upside down, lying on his stomach, or the like).

Martial Arts: The simplest form of Martial Arts lab is just a dojo-like facility equipped with practice dummies, punching bags, weapons and weapon racks, a fighting ring, wall mirrors, and the like. A more advanced one comes complete with trained personnel (or robots, or holograms...) for the character to spar against.

Mechanics: A collection of tools and spare parts for building mechanical devices, plus a collection of (possibly fake) devices a character can practice disassembling, repairing, and analyzing.

Mimicry: A simple Mimicry lab might be nothing more than a collection of recorded sounds the character can practice imitating. A more advanced one, like a Conversation lab, features hired actors in a social setting where the character has to trick them with impersonated voices or the like.

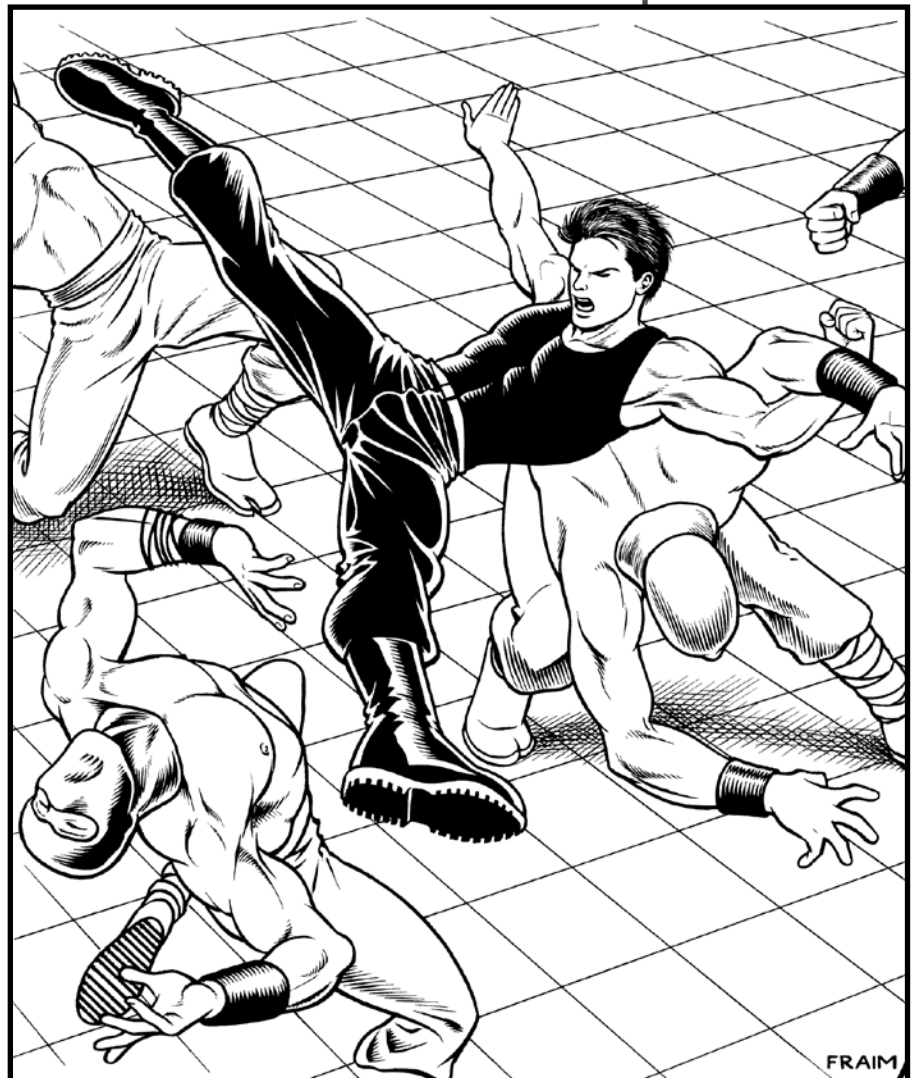
Navigation: The only way to practice Navigation properly is to get out and do it. To the extent a character could have a "lab" for this, it would be enormous areas of land where he could practice finding his way. More simply, a collection of navigational equipment and charts might function as a Navigation lab if it lets a character practice map-reading, compass use, and similar skills.

Oratory: To practice Oratory, a character needs an audience. Thus, like an advanced Acting lab, the character needs hired personnel to listen to his speeches and evaluate how strongly the character's words swayed them.

Paramedics: A typical Paramedics lab is more or less the same thing as a sickbay, infirmary, or at its most advanced a miniature hospital: a facility equipped to treat injuries and illnesses, complete with any medicines or drugs the GM deems appropriate. A more advanced Paramedics lab might include actors hired to fake illnesses and wounds that the character can treat.

Penalty Skill Levels: A "combat gymnasium" set up so the character can practice whatever type of combat he bought the lab for. It works well in combination with labs for other Combat Skills.

Since Penalty Skill Levels don't involve rolls, and the lab itself generally shouldn't have PSLs it can provide to the Base it's a part of, characters can buy a PSL lab for ½ Character Point for a 1-point Penalty Skill Level, 1 Character Point for a 2-point PSL, and 2 Character Points for a 3-point PSL. It doesn't matter how many PSLs the character himself has, the Base just pays the cost once to represent the extent of the equipment and facilities available for practice and instruction.



Persuasion: Similar to a Conversation lab, a Persuasion lab puts a character in a social situation with hired actors. The character's mission is to persuade some of the actors to agree with his position, convincingly lie to them, or the like. The actors don't know who the character is, but respond to anyone who talks to them according to the roles assigned to them.

Power: The nature of a Power lab depends on how the Skill is defined. Power: Brick Tricks might be a gymnasium-like facility built to withstand the character's enormous STR; a Power: Magic lab would be a wizard's sanctum, complete with grimoires, alchemical equipment, tomes of lore, and summoning circles built into the floor.

Professional Skill: The nature of a PS lab depends on how the Skill is defined. A PS: Blacksmith lab is a forge equipped with fire, anvil, tools, and raw materials; a PS: Play Basketball lab is a basketball court; and so on.

Rapid Attack: A Rapid Attack lab would be a combat obstacle course similar to the one described for Autofire Skills, where a character could practice moving around during combat.

Riding: A corral or other facility for keeping and caring for riding animals (and the gear needed to ride them), plus if appropriate an obstacle course where the character can practice Riding under difficult conditions, leaping over obstacles, and the like.

Science Skill: A SS lab is usually a laboratory in the literal sense of the word: a facility established for purposes of scientific research and experimentation. Depending on the type of science involved, it could include beakers, bunsen burners, supplies of raw materials, telescopes, microscopes, oscilloscopes, and numerous other devices. Laboratories for social Science Skills (like Anthropology, Archaeology, or Sociology) may just be collections of reference materials, plus perhaps simple practice areas.

Security Systems: A collection of tools and practice security devices, plus spare parts for building more security devices if necessary. An advanced Security Systems lab might be set up to allow a character to practice his craft under unusual circumstances (such as during a rainstorm, when he has to use Contortionist to reach the device, and so on).

Shadowing: Like Navigation, Shadowing is difficult to construct a lab for; characters usually practice in the field. However, a character with sufficient resources could construct a large "fake city" or the like (similar to those found on many movie studio lots) and hire actors to help him practice his skills.

Skill Levels: The nature of a Skill Levels lab depends on how the Levels are defined. Typically characters just buy up the roll for other labs, they don't buy "Skill Level labs" *per se*.

Since Skill Levels don't involve rolls, and the lab itself generally shouldn't have Skill Levels it can provide to the Base it's a part of, characters can buy a Skill Level lab for 1 Character Point for a 2-3 point Skill Level, 2 Character Points for a 4- or 6-point Skill Level, 3 Character Points for an 8-point Skill Level, 4 Character Points for a 10-point Skill Level, and 5 Character Points for a 12-point Skill Level. It doesn't matter how many Skill Levels the character himself has, the Base just pays the cost once to represent the extent of the equipment and facilities available for practice and instruction.

Sleight Of Hand: A simple Sleight Of Hand lab is a collection of practice dummies and articles of clothing so the character can practice pickpocketing, decks of cards to practice card manipulations with, objects of different sizes and shapes he can practice palming, and so on. A more advanced one might be a "fake city" like the one described for Shadowing where the character would mingle with actors and practice using the Skill on them.

Stealth: A basic Stealth lab would include floors of different consistencies (and perhaps covered with various objects) that allow the character to practice stealthy movement, a series of rooms for hiding in and sneaking through, and so on. For more advanced work, a "fake city" or "fake building" populated by actors trying to find the character could really put a PC's Stealth to the test!

Streetwise: Creating a Streetwise lab is even more difficult than a High Society lab — criminals are notoriously closemouthed and uncooperative, after all. The best a character can do is something similar to a Conversation lab — a facility, perhaps designed to look like an underworld bar or the like, where a character interacts with actors hired to pretend to be criminals and lower-class people.

Survival: As with Navigation and Tracking, the best sort of Survival lab would be a large area of land (or, ideally, several large areas in various climatic and ecological zones around the world) where a character could get out in the field and really practice his skills. Characters who aren't ultra-wealthy may have to settle for a small outdoor area where they can practice starting campfires, building primitive shelters and weapons, and maybe trapping and preparing small game.

Systems Operation: Similar to a Computer Programming lab, a Systems Operation lab is typically a room filled with all sorts of communications and sensory equipment — radios, televisions, scanners, and the like. The higher the roll, the more advanced the equipment.



Tactics: Tactics is another Skill best suited to actual practice in the field. Characters who can't afford the land and actors necessary to stage mock battles may have to settle for a large collection of wargames, military history books, and tactical reference materials they can study.

Teamwork: The classic Teamwork lab is a “danger room” — a facility where a group of characters can set up mock combat conditions and practice working together as a team. (See page 188.) Characters who don't have access to such advanced facilities can use a combat gymnasium such as the ones described for Defense Maneuver and Martial Arts instead.

Tracking: The best Tracking practice can only be obtained in the field, so a character who wants to get really good at this Skill may need to own large tracts of land well-populated by wild animals (and into which he can occasionally send hired people to make trails and try to avoid leaving tracks he can follow). Characters without this sort of resource may instead have to use a collection of reference books and casts to study different prints.

Trading: A Trading lab would essentially be a fake marketplace or boardroom populated by actors with whom the character negotiates. Depending on their assigned roles the actors might be stubborn, greedy, gullible, and so on.

Transport Familiarity: To the extent characters can have or need a TF lab, it would resemble a Combat Driving/Piloting or Riding lab, but with far fewer resources — the character only needs to know how to operate the vehicle under normal conditions, after all.

Two-Weapon Fighting: Characters practice Two-Weapon Fighting in “combat gymnasiums” and firing ranges similar to those described for Auto-fire Skills, Martial Arts, and other Combat Skills.

Ventriloquism: Like a Persuasion lab, a Ventriloquism lab is a social setting with actors whom the character tries to fool by throwing his voice. The actors don't know what the character wants to practice, thus allowing him to determine if their reaction to his use of the Skill is genuine.

Weapon Familiarity: To the extent characters can have or need a WF lab, it would resemble an Auto-fire Skills or Martial Arts lab — a collection of the appropriate type of weaponry and the facilities to practice using it. An advanced WF lab might include sparring partners to give the character some “live” weapons practice.

Weaponsmith: Depending on the type of weapons involved, a Weaponsmith lab could be a blacksmith's forge, a gunsmith's workshop, or a ballistic missile engineer's laboratory.

Skill Enhancers

Bases cannot buy Skill Enhancers.

PERKS

Generally, Bases shouldn't be allowed to buy Perks, though the GM can permit this if appropriate. Bases aren't living beings who possess the sorts of resources and benefits described by the Perks in 6E1. Some exceptions are discussed below.

FRINGE BENEFIT: DIPLOMATIC IMMUNITY

Embassies and other consular buildings should buy the Fringe Benefit *Diplomatic Immunity*, since they're technically part of their home country and can't be entered without permission.

FOLLOWERS

Bases often have (semi-)permanent employees/residents or other personnel who work for the PCs, oversee the proper functioning of the Base, and so on. The most valuable and competent of these are bought as Followers, and so are discussed here; but many they could be DNPCs instead.

For any type of Base Follower, calculate the cost of the Followers separately and then add it to the cost of the Base or Vehicle after you calculate that cost.

Example: *Defender has spent 120 points on his Base so far, and would now like to buy some guards for it. He buys 64 agents built on 100 Character Points (costing $100/5 = 20$ points, $64 = 30$ points; total 50 points). When Defender finishes calculating the cost of his Base, he'll add 50 points to it.*

Base NPCs fall into five basic categories:

Building Staff: These are personnel who take care of the Base and its components, including vehicular components. They include mechanics, electricians, repairmen, engineers, groundsmen and gardeners, pool-boys, janitors, and the like.

Service Staff: These people take care of the other people on site. They include butlers, maids, housekeepers, cooks, personal trainers, security guards, receptionists, medical personnel, and so on.

Enforcement: Depending on the exact nature of the PC group and its Base, there may also be an enforcement arm — a small paramilitary or police force, for instance. Skilled security guards or jailers may also fit into this category instead of Service Staff. These tend to be the most competent Base NPCs, though of course nowhere near as powerful or capable as the heroes themselves.

Family: Some heroes and villains may house their families in Bases, though this is usually the exception rather than the rule.

Pets: Finally, PCs and other Base inhabitants can have pets on-site — a master villain's pampered white cat (or his aquarium full of piranha!), a wilderness hero's trusty wolf, a madman's victim-devouring mutant octopus, or (stretching the definition only a little) a bad guy's kept woman/kept man.



When creating NPCs for a Base, give some thought to what position they fulfill in the team's/mastermind's organization. If you do, no NPC will seem inappropriate when found on-Base.

CAMPAIGN ROLES

Beyond just their positions within the organization's hierarchy, every Base NPC who appears repeatedly in the game ought to have a name and develop additional roles within the campaign. The GM doesn't have to decide on those roles initially; in fact, many will develop naturally as the character interacts more and more with the PCs.

Here are some examples of how this comes about. Suppose a superhero tends to damage his super-car a lot. Consequently, the vehicle spends a lot of time in the shop, and the superhero often goes down there to see how repairs are progressing. This means one or more mechanics inevitably develop some sort of personal relationship with that super. It could be just a cordial friendship, or perhaps it becomes romantic. In either case, what happens when (for example) the NPC asks the superhero for an ethically ambiguous favor?

Many PCs use the Base computers constantly and need new programs to perform tasks. They may be able to write those programs themselves, but the Base still needs an information manager to make sure those programs interact with one another and with the operating system in a friendly fashion. So the Base ought to have one head programmer, and that person will interact with the computer-using characters frequently. Lots of plot and subplots could arise from the relationship.

Just passing through the front gate and past the main security post every day, sometimes several times a day, gives the PCs a first-name acquaintanceship with the guard most often found on duty there. That provides the GM with the opportunity to develop that Follower further.

VEHICLE

Tall buildings often have elevators so inhabitants can move between floors; large Science Fiction buildings may have "travel pods" that are like elevators but can move horizontally as well as vertically. These are bought as Vehicles for the Base (see page 185 for an example). A Base with its own dedicated fleet of Vehicles might also buy them, though usually it's best for whoever's buying the Base to buy the Vehicles separately. (In any event, determine the Vehicle's cost separately using the standard rules on 6E1 107, then add it to the cost of the Base after you calculate that cost.)

New Base Perks

In some campaigns the GM might wish to establish "resources" or features that describe Bases and are best represented in *HERO System* terms as Perks. For example:

RESTRICTED ACCESSIBILITY

Cost: See Restricted Accessibility Table

In campaigns stressing the "security" aspect of a Base's location, the Location rules (page 15) may be just the first part of the equation. Two Bases in the same general location may still have very different levels of accessibility. For example, a castle in a *Distant* Location defined as a temperate plain is easier to get to (and probably to get into) than one in a *Disant* Location defined as a mountaintop that can only be reached by a single narrow path.

To represent this, GMs can require Bases to buy a Perk, *Restricted Accessibility*. The cost depends on how easy it is for people to reach and/or get into the Base, as indicated in the accompanying table. The GM should use the difficulty of the accessibility to impose appropriate Skill Roll penalties to characters who try to force their way into the Base.

RESTRICTED ACCESSIBILITY

Cost Accessibility

- 2 **Hard To Reach:** Base is in a spot that's particularly difficult to reach in its Location (a mountaintop, the bottom of deep jungle cleft or undersea trench, in the middle of an asteroid belt)
- 3 **Defensible Access I:** Whether or not it's easy to reach, the Base is situated or constructed so that it's difficult, given the commonly-available technology and abilities in the campaign, for people to get into it if the people inside don't want them to (there's only one door/gate; there's more than one entrance, but each one is a series of two offset doors/gates with a killing ground between them).
- 6 **Defensible Access II:** Like Defensible Access II, but even more protected (a mountaintop fortress that can be reached by only one slender path; an underground refuge accessible only by one narrow tunnel).

TALENTS

Talents are rarely bought for Bases, since very few of them are appropriate for buildings, caves, and similar structures. Eidetic Memory is often used to create recording equipment, and Universal Translator might be installed in a Base so everyone inside it can talk to everyone else easily. (Or either ability could be given to a Computer that's been supplied with the appropriate Senses.)

The *Striking Appearance* Talent might be appropriate for some Bases in some campaigns. Since Bases don't have PRE, the dice from Striking Appearance would be rolled straight, without any additional dice from the Characteristic. This could represent a Base whose form and look are so beautiful, inspirational, or terrifying that just seeing it or going inside it triggers a "Presence Attack." ("Only the bravest of the brave can steel his heart and walk through the gates of Skull Keep!")

POWERS

A Base's Powers typically represent equipment built into it or installed in it, ranging from weapons (cannons, security blasters, knockout gas...) to defensive measures, sensors, computers, and much more. Thus, most Base Powers have the Limitation *Focus* with the *Immobile* modifier. Powers that are "innate" to a Base, and thus not bought as Foci, are rare, but the GM can permit them if desired. However, not all Powers are appropriate for a Base. For example, buying Mental Defense for a Base would require a good justification, and perhaps the *Partial Coverage* Limitation; and there's probably never a good reason to buy Clinging for a Base.

Since Bases do not have SPD or DEX, for purposes of determining the END usage of Constant Powers and the like, assume all Bases have SPD 3 (see page 150).

Besides the ideas and suggestions listed here, see Chapter Five in general for all sorts of Base equipment created with Powers. Some examples include many Attack Powers (weapons of various sorts), Clairsentience (security cameras), and Teleportation (teleportation platforms).

ADJUSTMENT POWERS

Characters cannot Adjust the Size of a Base unless the GM permits them to. Typically the way to increase or decrease a Base's Size is to use Growth or Shrinking with the *Usable As Attack Advantage*.

BODY-AFFECTING POWERS

If a Base buys a Body-Affecting Power such as Desolidification or Shrinking, then while the power is in effect, all characters in the Base at that time are automatically affected by the power without need for the *Usable By Others Advantage*. Likewise, they return to their normal state when the Base does so. What happens to a character who leaves a Base while the Base is in an altered state is up to the GM, and should depend on special effects, common sense, and considerations of game balance. Typically the Power immediately ceases to affect the character at that time, but the GM may prefer to have the power remain in effect for dramatic purposes.

DEFENSE POWERS

Compared to Vehicles, Bases rarely buy Defense Powers; they're much more likely to rely on their basic PD and ED (even if they use *Partial Coverage* to increase it in defined areas, such as holding cells). If a Base buys a Defense Power, it usually represents some sort of equipment with a specific use. An example would be a Force-Field Generator that can project an energy screen (a Barrier, or Resistant Protection, that costs END to maintain) to protect a particularly sensitive or vital part of the Base.

A Defense Power bought for a Base as a whole typically protects *both* the characters in the Base and the Base itself, just like the Base's standard PD/ED. If appropriate, you may apply a Limitation indicating that the defense only protects one or the other. For example, polarized windows would take a -1 Limitation, *Only Protects Against Exterior Flashes Against Base Occupants*. That means the Base itself could still be blinded (assuming it had Sight Group Senses), and that if the occupants attack each other with Flashes, they have no protection. (Alternately, since the occupants get the benefit of the defense for free, the GM might prefer to consider this a -0 Limitation.)

Base defenses sometimes have the *Ablative* Limitation at the -½ level. Since they don't take STUN, they can't take the -1 level, though the GM may allow the optional -1 variant in which attacks reduce the defense's Active Points.

MOVEMENT POWERS

Generally speaking, Bases don't have Movement Powers at all; a large object that's intended to move is built as a Vehicle. However, the GM might permit some Bases to have small amounts of an appropriate Movement Power with an acceptable special effect. For example, a space station Base in a Science Fiction campaign might have Flight 4m defined as thrusters that it uses to compensate for gravitic forces when necessary. If the GM permits a Base to have a Movement Power, that Power automatically costs 0 END, as with Vehicles.

Bases with restricted mobility don't have DEX and SPD — their movement's not meant for combat use. If the issue arises during game play, assume a Base has SPD 3, DEX 5 (the GM can adjust these values as appropriate).

REPAIR POWERS

With the proper special effect, a Base could buy Barrier, Healing BODY, or Regeneration to represent a "self-repair function" built into the Base as a whole. Typically it should take time for a Base to repair itself, but for some special effects (such as "magic"), the rebuilding might occur almost instantaneously.

SENSE-AFFECTING POWERS

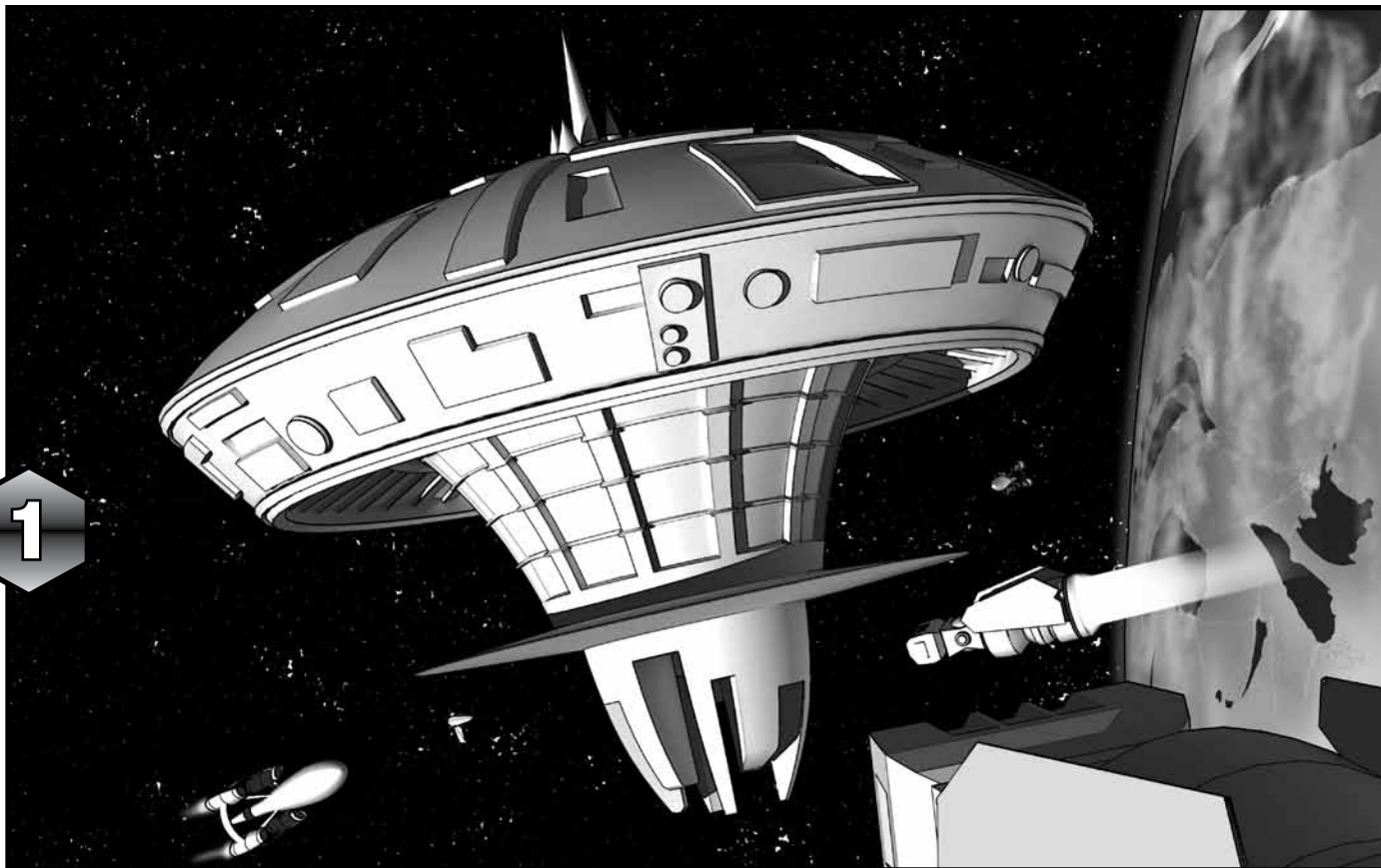
Because Bases commonly use Radio Group Senses, such as Radar, to perceive their targets, Sense-Affecting Powers bought by or to affect Bases should typically pay the "Targeting Sense Group" charge for Sense-Affecting Powers bought to affect the Radio Sense Group.

SENSORY POWERS

Many Bases have Sensory Power devices installed — closed-circuit TV security cameras built with Clairsentience, radar installations, radio and television systems, and so forth. Chapter Five has plenty of examples.

Bases themselves do not have Senses — when they buy Enhanced Senses or other Sensory Powers, those Senses aren't actually used by the Base itself, but by its Computer or occupants (see page 190), who make PER Rolls using





Systems Operation (see page 190). Thus, many sensory devices take the *Affected As More Than One Sense* Limitation from 6E1 160. After all, a radar technician can't see a radar screen if he's blinded.

If a character wants a Base itself to have Senses for some reason (perhaps because the Base is sentient), it can buy standard Senses like Normal Sight and Normal Hearing for the costs listed on 6E1 209.

In some campaigns, characters should be allowed to put vehicular Senses and communications systems into a Variable Power Pool, and to apply Advantages such as *MegaScale* to them for long-range use. This is particularly appropriate in some types of Science Fiction campaigns, where access to a lot of sensors (and the need for them to function over cosmic distances) is common.

CHANGE ENVIRONMENT

You can use Change Environment to represent all sorts of equipment or conditions in a Base that make it hard for people (particularly people who aren't supposed to be there) to do something. Page 19 mentions penalties to Skill Rolls to pick specific locks or bypass certain types of security systems; another possibility would be penalties to Stealth rolls because a Base is so well-lit or well-observed that sneaking through it is difficult. A transdimensional Base whose interior properties don't always follow the laws of physics might increase the Range Modifier due to distance distortion (or perhaps occasionally reduce it...).

ENDURANCE RESERVE

Endurance Reserve is commonly used to build power plants or fuel supplies for Bases. See page 175 for more information and examples. Note that a Base designer can use the 5-point doubling rule to buy multiple Reserves, but choose to give some of them less END or REC to represent "backup generators."

6E1 206 warns GMs about the possible problems of large Endurance Reserves and the *Increased Endurance Cost* Limitation. These considerations are as relevant for Bases as normal characters, but are often balanced by the fact that Bases have so many systems to maintain, with all (or most) of them costing END. A character can only use a weapon with Increased Endurance Cost once per Phase, generally, but a Base with a large crew and lots of weapons may be able to make a dozen attacks in a Phase, at proportionately greater END cost. Keep this in mind when deciding on the size of an Endurance Reserve and the appropriateness of Increased Endurance Cost.

HEALING; REGENERATION

Healing is a rare Power for Bases, but not unheard of. In some genres, such as Superheroes and Science Fiction, high technology or magic might allow a damaged base to repair itself. You can buy this as a form of Healing BODY, typically with Extra Time (the Resurrection option isn't allowed or required). If a system is particularly vital or difficult to repair, the GM may require the Base to have a variant of the *Can Heal Limbs* Adder — *Can Repair System* — to fix it with Healing.

Bases can also have systems or devices installed for Healing occupants. The Autodoctor (page 174) is an example of this.

Since a Base doesn't have REC, it can't buy Regeneration to heal itself unless the GM wants to establish a rule that all Bases have a defined "REC" representing how quickly a work crew can repair them. If that's permitted, a Base could then buy Regeneration to represent better work crews, self-repair capability, or the like.

LIFE SUPPORT

Life Support is a crucial Power for any Base built in a hostile environment — underwater, in outer space, beneath an active volcano, or the like. Besides Self-Contained Breathing, most such Bases need a Safe Environment or two: undersea laboratories have High Pressure and Intense Cold; space stations have High Radiation, Intense Cold, Intense Heat, and Low Pressure/Vacuum. Base Life Support almost always takes the $-\frac{1}{2}$ Limitation *Costs Endurance*, meaning it must be turned on and has to be hooked up to an Endurance Reserve (or some other power source).

Additionally, many Bases maintain stores of food and drink, defining this as Diminished Eating (no need to eat) with Fuel Charges. Until they consume all the food, the Base's occupants need not worry about starvation or dehydration... but many sieges have been ended by lack of food or water instead of the raw power of the attackers. This form of Life Support typically doesn't require *Costs Endurance*, though it might if the Base had "food replicators" or other high-tech devices that create the substances out of thin air.

In most cases, Life Support that protects a Base's occupants against the external environment does *not* protect them from each others' attacks. If the Base's security personnel use knockout gas against an intruder, the Base's Life Support (Self-Contained Breathing) doesn't help the intruder at all. The GM may allow a -1 Limitation, *Only Protects Occupants Against Exterior Phenomena*, to reflect this, or simply consider it part and parcel of the special effect worth no Limitation value (since it's as helpful as it is restrictive).

SUMMON

Because Bases are built similarly to characters, and have a defined point cost, it's possible to Summon them, if the GM permits. The cost of the Summon depends on the total cost of the Base (not its cost divided by 5), and the character must apply the *Slavishly Loyal* (+1) Advantage.

TRANSFORM

Use the rules about overall Base BODY on page 13 to determine whether a Base is Transformed. Transforming a Base has no effect on the occupants, generally speaking, but of course the GM should apply common sense and dramatic sense when determining the results. If an evil demigod Transforms Kasdrevan's floating cloud-castle into feathers, the wizard and his guests are going to fall. If Takofanes the Arch-Lich changes the White House into stone, the President and

his staff are going to end up trapped inside. As always, the GM should adjudicate the situation in light of game balance. A Transform against a Base shouldn't become a way to quickly and easily kill anyone not targeted; the collateral targets should have some chance to avoid or escape the effects.

POWER ADVANTAGES

Most Power Advantages work for Bases the same as for regular characters. However, a few require special rules for special circumstances.

DELAYED EFFECT

It's not uncommon for Bases to have large, complex weapons that require a lot of preparations before they're ready for use. With the GM's permission, you can simulate this with the *Delayed Effect* Advantage (or, for more restricted weapons, with the *Extra Time* and *Delayed Use* Limitations). That way a character and his friends can spend a lot of time preparing their Base's defenses — loading ballistae or cannons, preparing a battery of heat-seeking surface-to-air missiles, or the like — fire the weapon in combat with just a Half-Phase Action. The GM must establish a way to limit the number of such devices a Base can have (such as its Computer's INT/5, the owner's INT/5, a flat number such as three, or something similar).

INDIRECT

Given the nature and special effects of Base defenses, a properly-defined Indirect attack may be able to bypass them and attack a Base's interior or occupants directly. For example, in a Star Hero campaign, starships might have Teleporting Missiles that can appear in the middle of an enemy starbase before exploding. Obviously, this could be an unbalancingly effective attack, so the GM may need to forbid it or monitor its use carefully. At the very least, the attacker needs a way to precisely sense his target point inside the Base; if not, the GM may impose nonperception penalties on the Attack Roll. A miss may not miss the Base as a whole, but it won't hit exactly what the attacker wants to. A Base with the *Counteracts Indirect* (+ $\frac{1}{4}$) Advantage on the appropriate defense resists this sort of attack with its normal, exterior, defenses.

RANGE ADVANTAGES

Many combat-oriented Bases come with sophisticated rangefinding and aiming systems, which you can sometimes simulate with Advantages like *No Range Modifier* or *Increased Maximum Range*. These are often bought as "naked" Advantages, to apply to any of the Base's weapons. If so, a *Requires A Systems Operation Roll* Limitation may be appropriate, to simulate the fact that the character using the ranging technology has to program in the attack coordinates properly. If the Systems Operation roll fails, the operator can still attack, but the normal Range Modifier applies.



STICKY

If a Base is hit with Sticky Attack, generally the attack does *not* then affect all the occupants. However, the GM can allow this if desired, based on the circumstances, the special effects, and common and dramatic sense.

USABLE ON OTHERS

Generally speaking, a Base does *not* have to apply this Advantage to a power used primarily or exclusively by its occupants. However, it may be required if the Base wants a system that can affect both it and its occupants simultaneously.

If someone attacks a Base is attacked with a Body-Affecting Power that's Usable As Attack, the rule on page 27 applies — that attack affects all occupants in the Base as well as the Base itself.

POWER LIMITATIONS

As with Advantages, most Limitations work for Bases just as in any other part of the *HERO System*. A few need special handling, or otherwise deserve special mention.

CHARGES

Since Bases do not have natural END to fuel their Powers, they often take Charges for them (particularly for Attack Powers).

The *Fuel Charges* variant of Continuing Charges is common for Bases. As its name suggests, it's an obvious choice for Base abilities that require a specific source of fuel. It's also a good way to represent any consumable resource the Base has in limited supply, like the Life Support (air and food) in a space station's escape pods. If multiple powers draw from the same source of fuel, usually that works better as an Endurance Reserve (see page 175 for several examples). The GM should review any use of Fuel Charges to make sure it's not abusive; weapons, for example, should rarely have Fuel Charges.

CONCENTRATION

Since Bases don't have DCVs, this Limitation works slightly differently. For the $-\frac{1}{4}$ value, increase the Base's OCV+ (see page 10) by 50%; for the $-\frac{1}{2}$ value, double it.

ENDURANCE LIMITATIONS

The *Costs Endurance* Limitation is commonly used on Base powers when the designer wants all of the Base's systems to draw off a common source of power (an Endurance Reserve). Systems that strain the Base's power resources can take *Increased Endurance Cost* Limitation, too, but the GM should take a close look at Increased Endurance Cost powers that draw from an Endurance Reserve to make sure they're not abusive.

At the GM's option, Base designers can define Costs Endurance as indicating that a Base power uses the *operator's* END, not END from an Endurance Reserve. For example, a crew of soldiers

operating a catapult or cannon might tire themselves out due to the effort of moving the heavy weapon into place, loading it, and firing it.

FOCUS

Much, if not most, of the equipment aboard a Base is built with the *Focus* Limitation (plus *Immobile*, as discussed below). See Chapter Five for more information.

BULKY AND IMMOBILE FOCI

Any Base Focus automatically gets an extra -1 Limitation, as though it was Immobile. If appropriate, the GM can allow a Base's designer to change this to Bulky ($-\frac{1}{2}$) instead, though this won't halve a Base's DCV. For example, the cannons on page 156 are defined as Bulky, since although it's not easy to do so they can be moved. For Foci that are harder to move than Bulky, but not truly Immobile, with the GM's permission you can take Immobile for them at only $-\frac{3}{4}$ value. In the case of Base Foci that can easily be picked up and moved around (such as a television set), neither Immobile nor Bulky may be appropriate.

REMOVING AND USING A BASE'S FOCI

Generally, characters cannot remove a Base's Focus and easily use it as if it were a personal Focus. Base Foci are separate items, but they're built for a Base's use, not independent use. However, in the interest of drama and excitement, the GM may wish to allow this in some cases.

Removing a Base's Accessible Focus requires one Full Phase. The GM may require a Mechanics, Electronics, or similar Skill Roll, but shouldn't inhibit the character too much, since Accessible Foci by definition are easy to remove. There should be no Skill Roll penalty, and even if the character lacks the necessary Skills, he should still be able to remove and use the Focus (though perhaps at decreased effect). An Inaccessible Base Focus requires one Turn to remove; the same considerations regarding Skill Rolls apply.

Even when it's removed from a Base, a Focus is at best Bulky, meaning that using it halves a character's DCV. The GM may waive this rule in the interest of common sense and dramatic sense.

INACCURATE

Many Base weapons are large, awkward things that aren't easy to aim properly, and you can represent this with the *Inaccurate* Limitation. This is particularly appropriate for a newly-developed weapon technology that isn't fully understood or hasn't yet been developed to its full potential.

INCANTATIONS

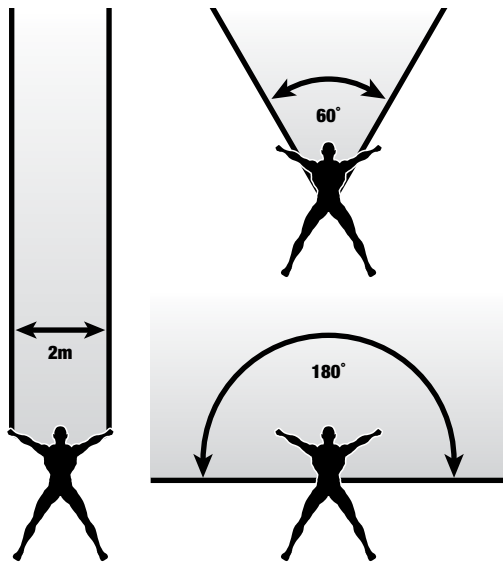
Base occupants may have to use spoken commands to activate some equipment. This may qualify for an *Incantations* Limitation, but GMs should examine any use of this Limitation carefully to make sure it's not abusive. If the voice control can be manually overridden, the Limitation is usually inappropriate.

LIMITED ARC OF FIRE

A Base can buy its weapons with *Limited Arc Of Fire*. This Limitation signifies that the weapon cannot fire in all directions; instead, it can only cover certain areas. The value of the Limitation depends on the size of the arc and whether the weapon can only fire on targets on the same horizontal level as itself (see accompanying table).

LIMITED ARC OF FIRE

Arc Of Fire	Limitation Value
2m x 2m x 2m line	-¾
60 degree cone	-½
180 degree cone (or wider)	-¼
Additional Modifiers	Value
Only on same horizontal level	¼ more Limitation



ONLY APPLIES TO SINGLE WEAPON (-1)

As discussed on page 192, typically when a piece of Base equipment obtains or provides some bonus in combat, it applies to *all* of the Base's attacks, even attacks made by characters or systems other than the one who obtained or provided the bonus. If you want to design a system that only applies to one weapon or attack (such as a dedicated sensor that works with one specific blaster), you may apply this -1 Limitation to it.

PARTIAL COVERAGE/ONLY WITHIN DEFINED AREA

A character can build parts of a Base (typically a very large one) with more of something (typically BODY or defense) in a particular area. Since it doesn't apply to the entire Base, it takes a *Partial Coverage* Limitation.

To derive the value for Partial Coverage, determine the overall size of the Base and the size of the affected section. For each increment of Size reduction (each step upwards on the Base Size Table), the Limitation is worth -¼ (maximum of -2).

In some cases, you can refer to this Limitation as *Only Within Defined Area*. This applies to powers that only work in some small area of the Base, rather than throughout it. For example, a space station might have a 40m x 40m area where it could vastly increase the strength of its artificial gravity to restrain prisoners, or a built-in security blaster might only be able to fire at targets in a specific corridor.

Example: *The Galactic Empire constructs a Base a kilometer long (1,000m x 500m x 500m). It wants to provide special defenses for the command center (to protect the lives of the captain and the chief officers), so it buys +20 PD and ED for an area 20m x 20m x 20m. Since the defense protects such a small part of the Base, it gets a -2 Partial Coverage Limitation (total cost: 20 points).*

Additionally, part of the Base (a 400m x 200m x 200m section) has a special backup life support system — the crew can retreat there if main life support fails. Since this is two steps up the Base Size Table, the Life Support takes a -½ Only Within Defined Area Limitation.

REQUIRES A ROLL

Requires A Roll is appropriate for many Base powers. Typically Systems Operation is the Skill used.

At the GM's option, a character who fails a Required Skill Roll on Base equipment doesn't fail to activate or use the power, he simply suffers a penalty for using it — -1 OCV, or the like, per point by which the he misses the roll. The GM determines the exact effects. In this case, halve the value of the Limitation (if it's only -¼, reduce it to -0).

SIDE EFFECTS

When a character creates a Base ability with a Side Effect, he must specify whether the effect harms the Base itself, or one or more occupants. If it affects both, he can take the Limitation twice.

UNIFIED POWER

Characters cannot take this Limitation for Base equipment and abilities unless the GM gives permission.



POWER FRAMEWORKS FOR BASES

Bases are allowed to take Power Frameworks, if justified by their special effects.

Bases may *not* place all their weapons in a Power Framework; they must buy them separately. However, a single weapon with multiple functions (such as a gun with different types of ammunition, or a space laser with regular and MegaScaled ranges) could be built as a Framework (almost always a Multipower).

Base Variable Power Pools are much less common than Multipowers. The most common type is a VPP for sensors and communications (see page 181 for an example).

BASE COMPLICATIONS

A Base can have Complications, just like a character, though the options open to Bases are more restricted than for ordinary characters. Complications serve to give the Base flavor, but don't usually reduce the Base's cost to the character (see 6E1 107). The GM should carefully examine the Complications to make sure they fit into the campaign; some Complications may be Mystery Complications (6E1 417), thus allowing the GM to make sure they fit the campaign. The GM can also set a maximum number of Complications for the Base.

Typically, Complications not discussed below cannot be taken by Bases, but the final decision is up to the GM.

DEPENDENCE

Typically, Bases require spare parts and repairs over the course of their existence; some also need fuel to keep their power generation systems functioning. This doesn't entitle them to a *Dependence* Complication, any more than a normal character can take a *Dependence* because he needs to eat or periodically requires health care. However, in the GM's discretion, if a Base needs a particularly unusual type of replacement part, and needs to have it replaced frequently, a *Dependence* may be justified.

DEPENDENT NON-PLAYER CHARACTER

The Base has an individual who's almost always in or near it. A DNPC is different from personnel (Followers) because the creator/occupants of the Base feel a special need to protect the DNPC from harm. The DNPC will often be especially defenseless or close to the Base's owner (and maybe the Base itself, if sentient, feels the same). Some common examples from genre fiction include butlers, maids, janitors, repairmen, and technicians.

Example: *Defender has an out-of-work brother who's staying at Champions HQ because he doesn't have anywhere else to live. He keeps himself busy by fixing things up around the Base. He's a Very Frequent DNPC.*

See *Followers*, page 25, for a discussion of common types of Base NPCs.

DISTINCTIVE FEATURES

If appropriate, Bases can take Distinctive Features. This typically signifies a Base whose appearance sets it apart from other Bases in some disadvantageous way, or which inspire strong negative emotions in people. Examples include:

- distinctive markings (police stations, military bases, and the like)
- appearance inspiring awe or fright (large military bases)
- appearance inspiring covetousness (mansions, luxury condominiums)

Most Base Distinctive Features are Concealable With Difficulty (repainting, changing furnishings) and Noticed And Recognizable. Some, particularly military bases deliberately designed to terrify the opposition, may Cause Major or Extreme Reactions.

HUNTED

A Base could be Hunted (most likely, Watched) by an individual or group. For example, if the government funds the construction of a headquarters for a superhero team, it may Watch the Base to make sure nothing untoward's occurring there, that the team isn't keeping prisoners or items in violation of the law, and so on.

The thing to remember about a Base Hunted is that the Hunter is after *the Base*, not the people who own it or live in it. He wants the Base for some reason — usually to take control of it, get it back (if it used to be his), or deconstruct and study it. Of course, the same person may Hunt both a Base and its occupants, but that's not required.

PHYSICAL COMPLICATION

Physical Complications are an excellent way to represent ongoing problems with a Base's physical structure or capabilities. Examples include:

Alien Computer (Frequently, Greatly Impairing; 20 points):

The Base's computer was built, modified, or warped by aliens (or other unusual beings), and doesn't always work the way it's supposed to. Once per game session, the GM should have the computer make an INT Roll at -3. If it succeeds, nothing goes wrong. If it fails, a program or Skill Roll is misinterpreted, with comic and/or dangerous results. (If the Base's computer has been built using the Computer rules, the GM may prefer that the Computer, rather than the Base, take this Complication.)

Constant Malfunctions (Frequently, Greatly Impairing; 20 points):

The Base was poorly built, is infested by gremlins, or is so cutting-edge it just can't work right all the time. The GM rolls for the Base each game session. On a roll of 11-, something on the Base malfunctions or stops working at a crucial moment; the GM randomly determines which system goes kablooie, or chooses the one with the most dramatic impact.



Crew (varies): Some Bases need just a single person to “run” them. Others require a crew of hundreds, each with a specific job that helps keep the Base working at peak efficiency.

The default *HERO System* rules don’t consider requiring a large crew to be a Complication, since the drawbacks to having a large crew — the difficulties suffered when the Base lacks its full crew complement — are balanced by the fact that when the crew is present, it greatly expands the Base’s capabilities. However, the GM, at his option, could allow a *Physical Complication: Crew* Complication to reflect the problems that arise if a Base is less than fully staffed. The value of the Complication depends mostly on how likely the Base is to experience crew-related problems, which establishes the frequency. A fortress involved in a war may suffer a lot of crew casualties during the typical scenario, making Crew a Frequent problem. On the other hand, a starbase mainly engaged in research or trade may only experience Crew difficulties Infrequently. In any case, the problems themselves, when suffered, are usually Slightly Impairing.

Page 193 has rules for the effects of reduced crew size. The GM should consider these rules when setting the value of a Crew Complication. Additionally, he should consider how easy it is for the Base to replace its crew. If the Base has a lot of backup Computers that can fill in for injured crewmembers, the Complication is worth less; if people require advanced, specialized training before they can join the crew, the Complication may be worth a bit more.

No Locks (Infrequently, Slightly Impairing; 10 points): In a setting where Bases normally have locks, a Base which cannot be locked is at a much greater risk of takeover or vandalism. The GM may adjust the value of the Complication depending on how likely those unfortunate occurrences are.

Restricted Access (varies): If it’s particularly difficult to reach or get into a Base in ways that cause problems for the occupants rather than helping them defend it (see page 17), the Base could take that as a Physical Complication. Typically this is a Slightly, Infrequently Impairing Complication worth 10 Character Points, but the value depends on just how hard it is to reach/get into the Base.

SOCIAL COMPLICATION

Although Bases don’t interact with society *per se*, they can have certain Social Complications to reflect how they are treated, if appropriate. Examples include:

Publicly Known (Frequently, Major; 15 points):

This is the same thing as Public Identity — everyone knows where to find the Base, what it can do, what it contains, and so forth. If someone attacking the Base makes an INT Roll, he may, at the GM’s option, receive a +2 bonus to Analyze Base and similar rolls.

Base (Frequently, Minor; 10 points): In a setting featuring sentient Bases, it’s likely that most Bases will be regarded not as citizens, but as property, like robots and computers. This Social Complication reflects that.

SUSCEPTIBILITY

With the GM’s permission, a Base could take a Susceptibility. This is rare, but not unheard of, particularly in Fantasy and Science Fiction. For example, a starbase built out of planes of force might start to fall apart (*i.e.*, take damage) if exposed to certain energy phenomena.

UNLUCK

A Base with this Complication is a nexus for unfortunate events — perhaps it was built on an old Indian burial ground, is infested by gremlins or demons, or has been cursed. Equipment malfunctions, windows break, the computer starts printing out poetry, the AI gets hooked on video games, escalators suddenly reverse directions, rituals and experiments conducted within it often go awry, the Base weapons fire by accident, and so forth. Unluck can be even worse if the Base is in a hostile environment: the hull could be punctured by a meteor which flew out of clear space, the airlock door falls off, and so on.

VULNERABILITY

Bases may take Vulnerabilities, if appropriate, though of course they should only be Vulnerable to BODY damage. In addition to standard overall Vulnerabilities, a Base might be Vulnerable to any attack that hits a specific location (representing a “weak point,” for instance) or the like; this typically counts as an Uncommon phenomenon.



GENERAL CONSIDERATIONS

While game considerations (like how much BODY and PD/ED your Base should have, what sort of weapons are built into it, and so on) are likely to be the first thing you consider when creating a Base, they're not the *only* factors that should influence Base design.

The Planning Stage

There are several considerations when planning and mapping a Base that you might want to think about before spending a single Character Point.

First, decide precisely *what* sort of Base you want to map. While this may seem self-evident, asking the question is crucial and skipping this stage may lead to a major stumble that will cost you time and effort later. Take the average villain Base. Is this the villain's lair? His temporary hideout? His workshop? Each one's likely to include specific features or details the others might not want or need.



Second, consider the Base's location. Why are you choosing this location? Base builders don't usually just plunk their shiny new building down anywhere that it will fit; they select a specific location for a specific reason (even if that reason's "it's the only possible place it will fit"). What features of the location lend themselves to the placement of a Base, and how can you best exploit them in your design? Does any aspect of the location (like its distance from the city) indicate that certain features are necessary (a high-speed transport system)?

Third, understand what level of detail is required for the Base's map. Each level of detail requires its own approach and has its own advantages and disadvantages as well. If the map's going to be generalized (with just the basics like room size and placement, doors, and a rough marker for distance), that requires a lot less work than one showing each room of the Base including the furniture and other interesting features (cush as steps, open areas, and chandeliers).

Fourth, determine what features are necessary for the map. This is another step where having specific ideas about your location helps. For example, using the villain Base concept mentioned above, you can ask yourself some questions that dictate how the map evolves. The temporary hideout needs some sort of living quarters for example (at least basic accommodations), and may need to account for concealing the fact that someone's in residence. The workshop may or may not contain a place for the villain to stay for any length of time, depending on where it's located, how difficult it is to access, and whether the work being performed there requires long, intensive periods of effort. A subterranean lair under the residence of the villain's secret identity doesn't need accommodations, but it requires some sort of secret/concealed access to the upper, public, levels and some sort of means by which equipment can be brought in and out. Henry Ford built his first "Horseless Carriage," the Quadricycle, in a shed in his backyard... but had to knock down a section of the wall to get it out because the final product was too wide to get out the existing door. Learn from his mistake!

Fifth, if you're the GM designing a Base as part of an adventure, how do you expect the Base to figure into the characters' activities? Is it a threat?

A place to explore? A trap-filled “adversary” in and of itself regardless of its residents? Does it have any specific weaknesses or vulnerabilities the PCs can exploit (and if so, how will they learn about them)? A Base that’s mostly a set-piece or a plot device needs far less detailed maps than one the PCs will spend a lot of time exploring, or where you plan to stage battles.

Realism Considerations

Another issue to consider as you’re planning your Base is how “realistic” you want it to be. Even the most “realistic” of game creations rarely bears much resemblance to true reality, but that still leaves a spectrum from Almost Realistic to Totally Unrealistic for you to work in. A Base closer to the Almost Realistic end of the spectrum generally doesn’t affect everyone’s ability to suspend disbelief, but can run the risk of being more complicated to set up and may ultimately frustrate the GM’s plans. A Base that’s closer to Totally Unrealistic tends to be easier for the GM to create, but may make the players scoff if the GM doesn’t carefully balance the fantastic elements with common sense considerations.

Most gaming Bases are at least somewhat “realistic” in some parts of the map. The key is to ensure there’s enough “realism” throughout the Base to make it appropriate for your group and style of play. Few groups expect their GMs to be structural engineers, and fewer still will have the technical know-how to detect any inadvertent mistakes — but any gaming group is going to question a GM who forgets to put in accessways, has countless minions working (and fighting) in the Base but has made no provision for where they live, or makes it so easy for the master villain to escape that fighting him is futile. A little bit of research and thought ahead of time can save the GM a lot of grief at the gaming table.

Genre Considerations

The genre of your campaign can also affect how you design Bases, how you map them, and how “realistic” they are.

FANTASY

Low Fantasy Bases tend to mirror those of Earth history. When designing and mapping one, emphasize the simple. Remember that humans have to build them with technology grounded in real-world physics and construction techniques, and have to live/work in them using real-world cultural processes. This doesn’t prevent magnificence — look at the work of the ancient Mayans, Egyptians, or Khmer (to name just a few examples). And don’t forget that Bases which look relatively humble are often designed with specialized techniques developed over centuries. The Viking longhouse, for example, is perfectly designed to fit the climate and landscapes it’s found in, while the “simple” tents of Bedouin tribesmen give them more than adequate protection from the harsh conditions in which they live.

High Fantasy generally has a mixture of elements which would be common to Low Fantasy and far more fantastic architecture. The existence of magic allows for an interesting variety of Base shapes and sizes, not to mention locations that would otherwise be impossible to build in. No other genre features such wonders as a necromancer’s “castle” built inside a gargantuan dragon’s skull, a palace floating among the clouds, a tower built on a spar of rock overlooking a waterfall, or a wondrous wizard’s mansion that’s actually alive!

MODERN DAY

Modern day Bases are in some ways the easiest to conceive of and design (since gamers see examples and elements of them every day, and can easily look up information about them), and in other ways the hardest (because knowledge means more details to cover to make the Base function as intended). In many cases a gamer can easily draw on locations he knows (and perhaps published floorplans) when creating a modern day Base, easing the workload considerably.

Things change as the game verges away from the “gritty” and into the more fantastical (such as the hidden lairs of James Bond-style masterminds) or the downright outlandish (such as most superhero or supervillain Bases). High-tech wonders start to predominate, making possible structures and features not possible in more “realistic” Bases. In some Modern settings that sort of thing is accepted without question. In others the GM has to be careful how far he can push the pulpish elements, lest he destroy the “feel” of his campaign.

POST-APOCALYPTIC

Most Post-Apocalyptic settings are marvels of recycling, with Bases (and other things) assembled out of the wrack and ruin of past civilizations. When creating your Base, think not only in terms of use, but re-use — what sort of “salvage” might go into the building of the Base in a way that makes it not only distinctive, but a special element of the game? For example, think of the irony and social commentary possibilities inherent in transforming a hospital or the Senate into a gladiatorial death-match arena, using a shopping mall as the dwelling of a peaceful commune, or making a ruined fast food restaurant the headquarters of a vicious mutant biker gang.

PULP

Locations in Pulp games have a wide variety of styles depending on what sort of subgenre they fit into. Some are very realistic, almost like modern gritty environments (just with Thirties-level technology). Others have been created with that sense of wonder, whimsy, and over-the-top fantasticality that characterizes much of the pulps. Pulp locations are exotic, and should be treated as such when you build Bases in them. Think grandiose: giant statue-lined amphitheaters; lost cities hidden inside enormous caves; immense laboratories filled with Weird Science gadgetry.



SCIENCE FICTION

Science Fiction Bases, like Fantasy ones, can span the gamut from extremely “realistic” (cramped science stations on distant worlds) to the bizarre and fanciful (space stations with simple artificial gravity, ringworlds...). In Near Future/Cyberpunk settings, you often see a mixture of Modern fare given a gleaming makeover—Danish Modern with a side of chrome—side-by-side with the dystopian slums and factories where luckless proles live out their pathetic lives. The emphasis on cutting-edge computer technology and similar systems often influences Base design (such as the need for massive cooling towers to keep servers running, or the creation of virtual reality entertainment chambers).

In Hard Science Fiction, designs tend toward the realistic — or at least as “realistic” as one can get given the setting and story. Gravity is generated by spin rather than artificial-G machines, which means that the living and working spaces in a Base are along the outer edge, with major Base systems being located toward the center. Outposts and other planetside habitats are more likely to be small, cramped, and grubby than in Space Opera settings; larger ones are typically built of prefabricated sections transported to the planet from a long-settled world. When you design Hard SF Bases, you can borrow or adapt a lot of concepts from the “real world” and tailor them to the setting. For example, soldiers’ barracks in a fortress on a colony world might look like modern submarine bunks.

In Space Opera (High SF) settings, not even the sky is the limit. Ultra-advanced technology makes it possible to build a Base nearly anywhere, and teleporter technology may allow characters to travel from one Base to another instantaneously. Space Opera architecture tends to be bold and grandiose, with elements from other Science Fiction styles thrown in for good measure. The commonality of high tech may affect Base design. For example, if anyone can have a flying vehicle, elevated parking areas might be found on multiple levels along the outside of a Base.

THINGS TO INCLUDE IN YOUR BASE

When you finally start designing your Base, you probably have plenty of ideas for things you know you want in it: weapons, labs, and other features that make it a useful, fun part of the game. But you should also consider some of the more mundane aspects of Bases, particularly when it comes time to map your Base out in detail. They’ll make your Base seem more “realistic” and give it the verisimilitude it needs to really come alive in the campaign.

Most locations in a Base fall into one of three categories: Access; Purpose; and Utility. Understanding each category helps you place them within the Base for both realism and drama. For

example, you shouldn’t locate a critical Utility area (such as the power generator room) near the entrance unless for some reason you have to.

Access Areas

Access areas allow occupants of the Base to get from one section of it to another. They include doors, gates, corridors/hallways, walkways, stairs, elevators, escalators, and antechambers. In a broader sense then can also include less-advertised or less-noticed things like escape tunnels, crawlspaces, dumbwaiters, and ventilation ducts.

While access might not seem like the most important Base feature, poor access is the doom of many a design. Access areas should allow the characters in your Base to move to where they need to be quickly, so they need to be efficient and practical (which at times call for different things).

Some example Access areas include:

HALLWAYS

The most common Access area is the hallway (or corridor, if you prefer); walkways, skywalks, catwalks, mezzanines, and similar structures are basically hallways with a different look and a name of their own. The design of your Base interior will have a tremendous bearing on how much space you need to set aside for hallways and related areas. Some designers like to have lots of hallways; others get by simply providing accesses between adjacent rooms.

If you want to calculate how much space to allow for hallways, wait until you’ve determined the size of all other Base internal areas. Then take that number and divide by 10. The result is a good rule-of-thumb estimate for how much additional space you should set aside for halls and similar accessways.

ELEVATORS

Tall modern buildings feature *elevators* (or *lifts*) to carry occupants and visitors rapidly from one floor to the next in ease and comfort. (Many buildings also have separate elevators for service purposes, cargo, or the like.) Early buildings sometimes had elevator-like systems featuring man-, animal-, or hydraulic-powered hoists (the Roman architect Vitruvius wrote about one that Archimedes built in 236 BC). Elisha Otis invented the modern “safety elevator” in 1852, and later inventors and engineers improved upon and added to his basic design. Science Fiction writers have expanded on the concept to create elevators for space stations and starships that can move sideways or diagonally as well as up and down.

Most modern elevators are *roped elevators*. This means each elevator car is attached to a cable that’s connected to an electric motor housed in a machine room immediately above the elevator shaft. The motor raises or lowers the car in response to commands from the elevator’s control buttons and a central computer located in the administrative section of the building.

To make the car easier to lift, the cable runs over a pulley-like device called a *sheave* that's part of the electric motor. The other end of the cable attaches to a counterweight that weighs as much as the elevator car when filled to 40% of capacity (547 kg [1,200 pounds], including the weight of the car itself). This helps to equal up the load on either end of the cable, so that raising and lowering the car takes much less energy than it otherwise would.

See page 185 for a character sheet for an elevator (built as a Vehicle).

ELEVATOR CARS

A typical elevator car is roughly 2m x 1.5m (7 feet by 5 feet) wide, and 2.4m (8 feet) tall inside (thus, an elevator shaft should take up about a 2.8m x 2.8m area, minimum, on each floor it passes through). It has a maximum safe capacity of 1,368 kg (3,000 pounds), which translates to a maximum safe occupancy (by engineering and by law!) of 20 persons. A car can lift more than that, but the cable is then in danger of snapping. To prevent this, sensors in the elevator alert the central computer if a car has too much weight. The computer refuses to move the car, or stops it at the first available floor, until the weight is reduced to safe levels. Similarly, if a car is near capacity, the computer won't let it make any more stops to pick people up until it lets some people off. (In game terms, when the weight exceeds the safety threshold, start using the excess weight to damage the elevator cable as if you were inflicting crushing damage [6E2 125]. Eventually, the cable takes so much damage that it snaps; see below for game information for the cable.)

In real life, elevator cars do not have "escape hatches" in the ceiling like they do in Hollywood action movies. However, since *HERO System* games typically have more to do with dramatic realism than "realism," the GM can assume that an elevator car has ceiling hatches if he prefers. Anyone who can reach a ceiling hatch can open it as a Full Phase Action. Going through an open hatch typically also requires a Full Phase Action, but you can reduce this to a Half Phase Action if the character succeeds with a DEX Roll or Acrobatics roll (his choice).

A typical elevator has a maximum speed of 305 meters (1,000 feet) per minute. For game purposes, elevator cars move every Segment (*i.e.*, as if they had SPD 12), assuming there's reason for them to. If not interrupted by the need to stop, they can move at a maximum of 4m, or approximately one floor, per Segment. Normal acceleration and deceleration rules apply.

THE DOORS

The doorway for a typical elevator is 1 meter (3.5 feet) wide. The elevator car itself has one set of doors, and each floor has its own set of doors (thus preventing people from falling into open elevator shafts). The doors usually open in the middle, with each half moving to the side.

Once a car stops at a floor, it takes 1 Segment for the doors to open. When the car is ready to

move again, it takes 1 Segment for the doors to close. Thus, the minimum possible time a character could expect to take to travel from one floor to another via elevator is 4 Segments (one to get in the elevator, one for it to close its doors, one for it to travel a single floor, and one for it to open its doors at the destination floor).

The elevator car doors open and shut via a motor. There's a clutch mechanism that opens the shaft doors at each floor when the elevator is there and opens its doors. The motor has STR 15; if a character wants to force the elevator car doors open, he has to defeat the motor in a STR Roll Versus STR Roll Contest. If a character wants to open the shaft doors when the elevator car isn't there, the clutch mechanism also has STR 15 and must be defeated the same way.

The elevator car doors have PD 4, ED 5, BODY 5. The shaft doors on each floor have PD 5, ED 5, BODY 4.

THE ELEVATOR SHAFT

The shaft for each elevator is 2.7 meters (9 feet) wide and broad. Guideways in the shaft allow the elevator and counterweight to move up and down smoothly and without shifting from side to side.

In the real world, there usually aren't ladders inset in an elevator shaft. However, Hollywood movies often feature them for the heroes' ease of use and dramatic action scenes, so the GM can assume that elevator shafts in the game have inset ladders unless he prefers otherwise.

SAFETY MEASURES

Most modern elevators have the following safety measures:

The Hoist Cable: First and foremost, the cable that lifts and lowers the elevator is pretty damn sturdy. It's made of several narrower lengths of steel cable wrapped around each other. Furthermore, each elevator actually has *four* cables, each capable of holding the car up on its own if necessary. Each cable has PD 5, ED 5, BODY 5.

Safety brakes: Each elevator has a set of safety brakes that activate when a governor in the elevator determines that the car's moving too fast. The governor has its own sheave in the machine room, and its own cable that attaches to a lever linkage on the roof of the car. If the elevator moves too fast, the governor activates, locking the sheave in place and triggering the lever linkage, which moves a wedge-shaped safety block into the guideways and gradually but firmly slows the elevator down and stops it.

The governor cable has PD 5, ED 5, BODY 3. The safety block has PD 5, ED 5, BODY 3.

Electromagnetic brakes: Each elevator car also has electromagnetic brakes. These brakes activate whenever the car stops on a floor to help hold it in place. If the elevator loses power, these brakes automatically clamp shut, again slowing down and eventually stopping the elevator.

Each car has two electromagnetic brakes. Each one has PD 5, ED 4, BODY 2.



Automatic braking systems: At the top and bottom of each elevator shaft are automatic braking systems that slow and stop the elevator if it's traveling too fast when it approaches them.

Shock absorber: Last but not least, if all those other safety measures fail and an elevator car starts to plummet to the ground, at the bottom of the shaft there's a heavy-duty shock absorber. In game terms, it provides 15 PD to the car and everyone in it for purposes of resisting the falling damage.

The GM should feel free to ignore any and all safety measures if he prefers. In action movies and novels, elevator cars seem to fall with distressing regularity. If you need for a car to fall, or threaten to fall, to create dramatic tension or set up a cool scene, do it! — and damn the “realistic” implications.

ESCAPE TUNNELS

Some Bases feature escape tunnels by which members can flee in times of crisis (or enter when staging a rescue of teammates when the Base has been captured).

The standard Escape Tunnel is 2m wide, 2m high, and as long as it needs to be. That's barely big enough for a single human to move through, though; if you want your escape tunnel to feature a custom-built getaway train, a moving walkway, or the like, it will need to be larger. On the other hand, a smaller tunnel, while harder to squeeze through, is easier to conceal.

An Escape Tunnel can be bought with bonuses to the same *Concealment* Skill that goes into making a Base hard to find, but with the *Partial Coverage* Limitation applied to its cost. The *Concealment* Skill used this way makes all tunnel entrances/exits difficult to find.

Purpose Areas

Purpose areas are specifically designed for one or more general uses in the following broad sub-groups: Habitation; Conveniences; and Workspaces.

Habitation areas are what allow locations to house people. They include bedrooms, staterooms, restrooms, and gathering areas.

Conveniences are features that aren't necessarily required for habitation (though they may be, for isolated Bases), but which make residing in the Base more convenient and comfortable. They include kitchens, trophy rooms, entertainment rooms, storage areas, treasure rooms, and recreation rooms.

Workspaces are areas in the Base designed for productive use. They include offices, garages, and laboratories.

Of course, an area can overlap two or even all three of these categories, or can fall into different categories at different times depending on how it's used. For example, the bedrooms of a boarding house and a brothel may be similar in size, shape, and decoration, but in one Base they're for habitation and in the other they're a workspace.

Similarly, a kitchen in a residence is a convenience, while a kitchen in a restaurant is a work area. You should consider which category a Purpose area belongs to when you're designing/mapping your Base so you know where to place it, how extensive it should be, and so forth.

Some example Purpose areas include:

BATHROOMS

Known by a wide variety of euphemistic terms (the facilities, the necessary, the water closet...), bathrooms range from the small and spartan to the large and luxurious. If you want your Base to be in any way “realistic,” you have to include them somewhere (even if it's just an irregularly-shaped room under a stairwell). A small bathroom usually requires about two square meters of floor space; larger ones featuring whirlpool baths, multiple-person showers, marble counters, and gold fixtures can be much, much larger. There are practical considerations for their placement, such as how far residents have to walk to get to one, and to what extent the designer of a multi-story structure can keep the bathrooms vertically oriented (*i.e.*, “lined up,” in the same place on the map of each floor) to minimize plumbing difficulties.

You should also consider how many people need to use a bathroom. A family only needs one or two single-occupant bathrooms; a barracks or stadium may need a large “common bathroom” with multiple toilets and shower stalls.

In a Fantasy or Science Fiction setting, there's also the issue of which species can use a bathroom. The simplest thing to do is ignore this un-dramatic question and just assume all the sentient races can fulfill their toiletry and hygiene needs in the same facility. If you want to be more “realistic,” each species may require its own bathrooms, which means bathrooms will occupy a much larger percentage of floor space than usual.

Cartographer's Tip: Ask both a man and a woman if your Base map features enough bathrooms. If the man says there are maybe a bit too many, and the woman says maybe a bit too few, that's an indication you've included the right amount of bathroom space.

ENTERTAINMENT FACILITIES

People in a Base who have time on their hands need some kind of recreation area to stay sharp. At its simplest, this could be an open area for performing calisthenics or playing one-on-one basketball. But more commonly recreation areas (“rec rooms”) and other entertainment-related facilities are specifically designed and specially built to fulfill their purpose. Their size and shape is often determined by the purpose: a private theater has different dimensions than a sensory-deprivation tank or a billiards room. The type(s) of entertainment area(s) you need depend on how long the individuals who occupy that location are staying and what they else they're doing there. A group of minions confined to a villain's secret lair will probably need a lot of entertainment to occupy their off-duty hours so they're not tempted

to sneak out of the Base, for example. The residents of a publicly-known Base in the middle of the city, on the other hand, have all sorts of entertainment options and so don't need to devote as much space to those purposes in their Base.

For any sort of entertainment-related area, take the maximum number of people who are supposed to occupy it comfortably at any given time and multiply that by 14 for a comparatively cozy chamber (such as a house's dining room), 28 for a relatively spacious chamber (such as a mansion's dining room or private viewing theater), and 42 for a very spacious chamber (such as a commercial movie theater or mansion's ballroom). That tells you the number of cubic meters of space you should allot for the facility. For example, if your Base has a miniature theater for reviewing films, and it's supposed to house 20 people at a time, multiply 20 by 28 to get a total area of 560 cubic meters — roughly 13 x 6.5 x 6.5 meters.

You can use this same formula for dining rooms, sitting rooms, and similar areas.

GARAGES/HANGARS

Garages and hangars should have a minimum space equal to two times the size of all the Vehicles you can park there at one time (see the Vehicle Size Table on 6E2 187 for Vehicles' dimensions). This assumes each Vehicle has its own separate exit; if they all share a common exit, increase the minimum space to *four* times the size of all the Vehicles.

If the garage/hangar has a repair area, that requires room equivalent to eight times the size taken up by the total number of Vehicles you want to be able to repair simultaneously.

LABORATORIES

Laboratories (and related spaces, see page 20) are a common feature in many *HERO System* Bases. How much space they take up depends on whether they're private or public, and on the types of experiments conducted in them.

A private lab can be crammed down into as little as two cubic meters; this is little more than a cubicle with a tabletop, some equipment, a chair, and a computer. Standard private laboratories would normally start at about 50 cubic meters, and can become much larger if space permits (see also page 185).

Shared laboratories follow the same guidelines as Private Laboratories, but need a minimum of 2 cubic meters per person who's expected to work in the lab at the same time; they're much more comfortable (and probably safer) when they're larger so everyone has plenty of elbow room.

Those space estimates assume that relatively simple, table-top experiments are the primary work going on. If the lab needs testing areas, a shooting range, a pressure chamber, massive tanks of chemicals, a robot construction bay, or the like, you should double, triple, or even quadruple the space required, as appropriate.

Note that libraries are often bought as several laboratories whose spaces have been added together in a single chamber. This may apply to some scientific laboratories as well (such as Biology, Genetics, and Biochemistry labs all sharing the same room).

OFFICES

A modern Base often needs office space so that the builder and others who live or work there have a place to do their paperwork, read the latest memos, and so on. Typically a Base should have one office for any team member or resident who wants one, one for every coordinator of civilian staff, one for every important civilian staffer (such as staff doctors), and one for anyone who manages personnel. In addition, most Base owners like to have at least one conference room, and a "situation room" (a war/ready room).

Offices can be very small — roughly one cubic meter for a cubicle-style workspace. An average detached office might be more like four or five cubic meters; a team leader or master villain might have a far larger office. A bathroom attached to an office takes up about one cubic meter for minimal facilities, two for full facilities at a basic level of comfort, and more for very comfortable facilities.

PERSONAL LIVING QUARTERS

The amount of space that quarters for residents of a Base occupies depends on their type and quality:

- **Bunkrooms:** 7-14 cubic meters per person with permanent quarters. In a cramped military setup, two or even three people might share the same bunk, sleeping in rotation, but in such a situation you should not allot less than 5 cubic meters per person.
- **Standard Quarters:** 40-50 cubic meters or more (including closets or similar storage spaces). This is roughly equivalent to a smallish hotel room without a bathroom. For a private bathroom, add 5-10 cubic meters for minimal sink/toilet/shower stall facilities, 12-20 for average facilities, more for lavish facilities.
- **VIP Quarters:** 200 cubic meters (including storage space and a comfortable bathroom), or more... possibly *much* more.

STORAGE ROOMS

Storage areas are a much-needed element in some Bases, and a waste of space in others. If your Base needs storage space (and most of them do), make certain that there's a way to get the goods in and out. Don't just tuck it into some forgotten corner, give it proper access.

Some storage areas require specialized equipment: freezers; heated areas; airlocks; and so on. You also might want to consider any special equipment that might be necessary for the storage area, such as forklifts or hoists.



The size of a storage room depends entirely on what's being stored there, and how much of it. An alchemist can keep most of his roots, powders, and other supplies in a walk-in closet; Dr. Destroyer needs warehouse-sized rooms to stash the spare parts with which to build his robotic armies.

TRAINING FACILITIES AND PRISON BLOCKS

Training facilities and prison blocks are normally built as portions of the Base with the *Partial Coverage/Only Within Defined Area* Limitation placed on some BODY, PD/ED, and any powers that pertain only to them. So once you know how large an area the facility takes up, a necessary calculation when determining the value of the *Partial Coverage/Only Within Defined Area* Limitation, you'll know how much of the Base's internal area to set aside for them.

Often, a Training Facility has an office and viewing area associated with it. That office/viewing area is not part of the Training Facility; its area comes out of the area allotted for Offices (above).

TROPHY ROOMS AND MUSEUMS

Many Bases have museums or other display areas — places where the Base's owner, team, or the like keeps souvenirs of important adventures, statues of members who've fallen in battle, and so on. The size of a trophy room is a very subjective choice (though it may depend on the size of the trophies — for example, if you need room to store a gigantic penny). Follow the guidelines listed for entertainment areas, halls, above, and then adjust to taste.

Utility Areas

Utility areas provide the basic necessities the Base needs to function. This includes such things as power generation, heating/cooling/ventilation, water processing, and life support. Often *Utility* areas are placed into out-of-the-way corners in the location (such as basements/sub-basements, attics, or closets), or in an area specifically dedicated to them. The specific type of *Utility* areas a Base requires determine where they should be placed and how much room you should devote to them — a cottage in the middle of a forest might use a simple hearth for heating, windows for cooling, and a nearby well or stream for water, thus having no real *Utility* areas to speak of. On the other hand, a space station requires all of the areas mentioned plus radiation shielding, airlocks, and other areas critical for survival in the vacuum of outer space, and will probably have to set aside considerable square footage for them (maybe even one or more entire floors of the Base).

Some example *Utility* areas include:

COMMUNICATIONS

Communication areas range from the telecommunications hookup in a corner of the base-ment to the viewscreen-filled “commo room” of a starbase. The size (and sometimes shape) of a communications center depends primarily on the type of technology available. Some additions to the Base may also be required: a large antenna; a string of telegraph poles; an elevated location (for a heliograph or semaphore system); or any other specialized features.

LIFE SUPPORT

Most Bases don't need life support, but for underwater and outer space Bases life support is, quite literally, the most important system in the Base. At the most basic level life support systems have to provide and circulate breathing gases; beyond that, many isolated Bases also need a reliable source of food and water (whether that's a well and a garden, or a food materliaziation device that creates wholesome fare out of raw organic molecules). Protection against crushing pressure, corrosive atmospheres, and similar perils may also be part of the package.

As a rule of thumb, life support requires a minimum of 1/10 cubic meter for each person the Base wants to support simultaneously. More people than that strain the system, causing it either (a) to run out of raw materials quicker, or (b) to break down eventually.

POWER

In Modern and Science Fiction settings, and even in some Fantasy Bases, power — typically electricity generated by some genre-appropriate means, but possibly steam or some other soruce — is vital. It's required to run any devices that aren't self-powered, which includes most Base systems. And since it's so important, adversaries may be looking for ways to “cut” the power, which means the Base's designer should consider security measures and the space they take up.

If the Base is hooked up to an outside power source (like the local electricity grid), it typically needs no more than a cubic meter of space for junction boxes, wiring, and the like. If the Base has its own source of power (an Endurance Reserve), that typically requires a minimum of 1 cubic meter of space per 10 END, plus 1 cubic meter of space per 5 REC. More primitive systems may need a lot more space, ultra-advanced ones may fit into smaller areas.



CHAPTER TWO
FANTASY BASES



CASTLES

The quintessential Fantasy base is of course the castle, whether it's an Iron Age hill-fort consisting of little more than a mound protected by trenches and earthen "walls," an early motte-and-bailey castle with palisades and a wooden keep, a High Middle Ages "typical" castle of worked stone, or a massive fortification of the Age of Cannon. This section of *The Ultimate Base* discusses the many features of castles and how to represent them in *HERO System* terms.

A complete history of castles, including a discussion of life within and around them, is largely beyond the scope of this book. This section focuses primarily on the physical components of castles so that players and GMs can build them to suit their Fantasy Hero campaigns. Readers interested in the many other fascinating aspects of castles should consult some of the books listed in the Bibliography.

For the most part this section discusses European castles and uses European terminology to describe them. But many other peoples in other lands also created castled (indeed, the Europeans learned much about castle construction from fighting the Muslims during the Crusades). In many respects the castles of other lands were similar to European ones, though materials, building styles, and specific features might differ in certain ways. The Glossary (page 61) includes sections listing castle and fortification terminology from the Roman Empire, Japan, India, and other lands.

See the Castle Glossary on page 61 as a handy reference for castle-related terms used in this chapter.

A BRIEF HISTORY OF CASTLES

The first constructed fortified areas in Europe were natural hilltops rendered more defensible by surrounding them with long trenches, often backed by *ramparts* (earthen walls) made from the soil dug up while creating the trenches. *Palisades* (or *stockades*) — wooden walls made from logs driven into the ground and fastened together — sometimes topped the ramparts.

The earliest types of fortifications identified by name in Europe were the *gród*, the *bergfried*, and the *motte-and-bailey*. The *gród* was a Slavic fortification that included a moat, an earthen rampart topped by a palisade (or sometimes walls made of a sort of basketwoven framework filled with earth and rubble), and a fortified gate; typically it was shaped like a ring. The *bergfried* was a Germanic fortification, a tall, often narrow tower that may have gotten its start as a watchtower or residence. Early ones were wooden, but by the second millennium they were often made of masonry, and many later became part of true castles.

The *motte and bailey* first appeared in the 900s and was common in France and Western Europe. It consists of an artificial hill (a *motte*) inside a courtyard (a *bailey*), with the bailey surrounded by a palisade (sometimes atop a rampart) that featured a fortified gate. Atop the *motte* was a *donjon*, or isolated tower made of wood (and sometimes surrounded by its own, separate palisade). More complex forms might be shaped to an existing hill, or include two or more baileys within the outermost palisade. By the 1000s motte-and-bailey castles incorporating stone began to appear, and some eventually expanded and metamorphosed into true castles. Donjons were typically square until the late 1100s, when round and polygonal forms appeared and became popular. (Square towers had corners more vulnerable to sapping and other attack, making a round or polygonal tower a better choice defensively.)

Beginning in the late 1000s, European nobles' and warriors' experience in the Crusades, and their exposure to Muslim fortifications in the Holy Land, helped to revolutionize European fortifications. This began the era of true castles — the large, stone structures modern-day people most commonly associate with the term. Wars and other conflicts were a frequent fact of medieval life, and that fact along with increases in population and production gave kings and nobles the means to construct ever larger and grander castles. Typically a nobleman had to get the permission of his liege-lord or king to build or expand a castle, but many powerful nobles ignored this requirement, building *adulterine* (unauthorized) castles.

As siege engines and siege techniques improved, so did castles. Walls became thicker and taller to protect against the powerful new weapons, and defenders struggled constantly to find new ways to counteract the creative tactics used by besieging armies. The principal of *flanking* — that any part of the castle that could be attacked should be exposed to counterattack from at least one other part of the castle — became better understood and influenced all aspects of castle design. At the same time, increased prosperity, and longer periods of peace, caused castle builders to pay more attention to personal amenities and features that made castle life easier.

The advent of gunpowder weaponry in Europe in the late 1200s signalled the beginning of a profound revolution in castle design. As cannons (see page 156) became more common and more powerful, castle walls grew much thicker not only to resist cannonfire, but to allow the defenders to mount and fire cannons from the much-wider ramparts at the top. *Bastions* — outworks designed to maximize the angles of fire and general effectiveness of defensive cannons — became a common feature, with competing groups of combat engineers arguing endlessly about the best size, shape, and configuration of them.

In time the advance in cannons, and the weapons that evolved from them, essentially rendered castles superfluous. Armies largely had to stop relying on emplaced fortifications and fight pitched battles against their enemies — and that's even more true in the modern world, where no type of fortification (except perhaps deep, specially-hardened underground facilities) can withstand the strength of certain types of missiles. But the castle remains in our minds as a symbol of strength, power, and even romance.

WALLS

The primary defensive feature of a castle is its walls, which come in several types (besides the rampart and palisade, mentioned above).

The *enceinte* is the main wall surrounding a castle proper or fortified town — the well-protected perimeter of the overall castle area, and thus the first obstacle besiegers had to get past. It consists primarily of towers (see page 45) and *curtain walls* (a wall connecting two towers), though it may also include *shield walls* (a section of wall significantly taller than the curtain walls, used as a defensive position). Some castles, known as *concentric castles*, had two enceintes, the outer one being shorter than the inner one so that defenders could more easily attack besiegers if they captured the outer one). The outer, shorter, wall was known as a *list*. The area between the two walls was usually referred to as the “outer bailey,” or sometimes as a *parateichion*, and could be broad enough to serve as a camping area, training ground, or place to put siege engines.

The height and width of medieval castles varied tremendously based on the circumstances, and both dimensions tended to increase over time thanks to both increasing prosperity and a need for protection against ever-more-powerful siege engines and cannons. Classical Roman walls, on which some medieval walls were based, were typically built on a formula of .25m width for every 1m of height (thus, a wall was four times as high as it was wide), with no fortification wall shorter than 2.5m. By the 1000-1100 period, castle walls were often 1.5-4.5m wide at the base (though they narrowed somewhat as they rose); a few unusual specimens were 5-10 meters wide at the base. By the 1200s to 1500s, even thicker, taller encientes were built, with widths at the base often ranging from 5-10 meters, and even as high as 14 meters!

The base of a curtain wall was known as a *plinth* (or sometimes an apron, batter, or talus). It was usually thicker than the rest of the wall, and often angled inward, for several reasons. First, the thicker bottom gave the wall stability. Second, it made it much more difficult, or even impossible, for sappers to dig under and collapse the wall. Third, it was harder for attackers to get a direct, penetrating hit on a sloped plinth with their missiles or a battering ram, and it required them to make longer ladders if they wanted to attempt an escalade. Fourth, objects dropped by the defenders would hit the plinth and bounce outward or shatter explosively, causing more injuries to attackers near the wall face.

Another way to strengthen the base of a wall was to *enmot* it, meaning to pile masses of earth around its lower parts and substructures. This helped to resist sapping, battering rams, and similar attacks.

When cannons became common, many curtain walls were converted to *ramparts*. A new, thin wall called a *revetment* was built behind the existing curtain wall, then the area between them was filled with *blochage* (earth and stones) and then paved over on top. The earth core's elasticity allowed it to resist cannonfire very well, and the thicker battlement allowed the defenders to use cannons themselves. To make it easier to use cannons against an attacking force, castle walls and towers were sometimes shortened, to improve the angle of fire.

Other types of walls in castles include:

- *scarp walls*, low walls along the inner and/or outer edge of a moat (the area between an inner scarp wall and a main defensive wall is the *peribolos*)
- *battered walls*, a term referring to walls inclined slightly inward for greater stability (particularly against earthquakes, in regions prone to them)
- the *chemise* (“shirt”), also known as a *mantle* or *mantlet wall* — the wall surrounding a donjon and typically within the enceinte. Usually the tower was connected to the chemise. If not, this was referred to as a *shell keep*, and sometimes an easily-defended bridge or causeway connected the chemise's allure to the tower.

The general term for something connected to the wall of a castle is “mural.” Thus, a mural tower is one that adjoins the walls, a mural chamber is attached to the walls (as opposed to being part of the donjon, which is often detached from the enceinte), a mural staircase is attached to the walls rather than an interior column, and so forth.

The Battlements

The top part of a curtain wall was known as the *battlements*, or *parapet*. It primarily consisted of two parts

- the *allure*, or wall-walk, a walkway from which defending soldiers kept watch, fought besiegers, and the like; and
- the *crenellations*, a protective feature consisting of *merlons* (raised, rectangular blocks of stone behind which defending soldiers could hide from enemy missile fire) and *crenels* (the open spaces between the merlons, sometimes called *embrasures*).

Merlons were sometimes fitted with loopholes (see below), and could be a distinctive visual element for a fortification. For example, Italian castles often had Gibeline merlons, which were dovetail-shaped.

In some castles, *huchets*, a sort of wooden shutter or cover, were built in the crenels. The wooden panel had a pivoting rod that attached to the two merlons flanking a crenel. When a defender wanted to shoot arrows, he raised the shutter and fired; when he wanted additional protection so he could reload, he let the huchet fall back into place to fill the crenel.

In some advanced castles, the allure has *two* sets of crenellations — one forward like normal, and one on the rear side of the allure. That way even if the attackers captured the courtyard, the defenders still had cover to fight them from. On the other hand, if the attackers captured the battlements, rear crenellations made it easier for them to attack the courtyard.

Defenders fighting from the battlements are usually considered to be Behind Cover so that attackers outside the walls suffer at least a -3 OCV penalty (and sometimes more). Once attackers get over the walls and onto the battlements themselves, this no longer applies.

HOARDINGS AND MACHICOLATIONS

One problem posed by fighting from the parapets is angle of fire. Once the attackers get close to the wall, defenders on the battlements can't hit them with arrow, crossbow, or gun fire anymore. The solution devised for this problem in early castles was to build *hoardings* — wooden platforms that extended beyond the crenellations with holes in the floor so defenders could drop objects, boiling water, and the like on attackers near the wall face. Hoardings included wooden walls and roofs to protect the soldiers in them, with loopholes (see below) in the walls.

During peacetime, hoardings were disassembled in large pieces and stored; they could then be quickly assembled and put into place when a siege began.

But hoardings had one specific weakness: fire. They were too vulnerable to being set alight by flaming arrows or the like. Thus in time they were replaced by a similar structure, the *machicolation* (also known as a *machicoulis*). A machicolation was basically the same as a hoarding, but made of stone. In times of peace the holes in the machicolation's floor were protected by covers so soldiers patrolling along the allure didn't fall through them. Machicolations could also be built into the buttresses and archways that were sometimes used to support the walls.

MURDER HOLES

Similar to machicolations were *murder holes* (also called *meurtrières* or *assommoirs*). These were holes in the ceiling above a gateway or corridor that allowed defenders to drop objects or pour liquids on invaders using the area below, or to jab at them with long spears.

BARTIZANS AND BRETÈCHES

In addition to the battlements and machicolations, many castles added to their defensive capabilities with two related structures.

The first is the *bartizan* (or *échauguette*), a turret or tower built along the battlements, along the top of a tower, or at the corner of a wall or tower. A bartizan is big enough for one (or at most two) men and has loopholes; some also have a machicolation-like hole in the floor so the soldier inside can drop objects on attackers.

A *bretèche* (also called a brattice, bretasche, or moucharabieh) is similar to a bartizan, but instead of being built along the top of a wall or tower is built into the side of a wall. It usually includes a machicolation-like feature. Bretèches are often placed above doorways and gates to give defenders another way to protect an access point. They're sometimes built into the sides of mural towers above the doorways leading out onto the allure, so that if the defenders lose the parapet and have to retreat into the towers they can drop objects on attackers trying to force the tower doors.

LOOPHOLES

Loopholes, also known as arrow slits, are narrow openings in a castle's walls (or other features, such as merlons) that allow an archer to fire arrows without exposing himself to counterattack. The typical loophole is a vertical slit; the open area behind it where the archer stands, sometimes called an *embrasure*, is shaped so the archer can fire straight out or down at an angle. When crossbows became common, a horizontal slit was often added, giving the entire loophole a sort of cross shape (this was sometimes referred to as a *crosslet*). During peacetime, loopholes let air and light reach the interior of a castle.

Some loopholes were wider openings with a rotating wooden or stone cylinder in them. A slit was cut through the cylinder. When the archer

wanted to fire, he turned the cylinder so the slit faced outward; when he wasn't firing and wanted more protection he turned it so the solid side faced the attackers.

Another type of specialized loophole was the *plunging loophole*, which was less of a slit and more of an actual hole. It had a cover over it so that objects thrown out of it would fall straight down to hit attackers near the wall face.

A similar feature to the loophole is the *oillet*, a small opening (usually round) used for observation. Some oillets were freestanding, but they were often "attached" to the top or bottom of a loophole. When gunpowder weapons became common, oillets were transformed into gunports, and were sometimes enlarged specifically for this purpose.

A character firing from a loophole is considered to be Behind Cover, so that attackers outside the walls suffer a -8 OCV penalty to hit him.

CASEMATES AND GAINES

To give the defenders more ability to strike at attackers from the ground level, some castles included *casemates*. A casemate was a sort of vaulted outwork built along the outside of a curtain wall between two towers. Accessed from the inside of the castle, it was fitted with loopholes so soldiers inside could fire straight out at besiegers.

Some casemates were more like corridors or galleries carved out of particularly thick walls. This type of casemate was also known as a *gaine*.

OTHER WALL FEATURES

Some other features of castle walls include:

Ashlar versus bossage: Most castle walls were made of *ashlar* stone, meaning stone blocks cut and dressed on all six sides. But some featured *bossage* (or were "*en bos*"), meaning that the outer side facing the attacker was left rough (or even specifically carved with a round or pointed projection covering most of the face of the block). Some castle builders believed that bossage provided additional protection against missiles and battering rams. (It also makes the wall easier to climb; add +1 to Climbing rolls when characters try to climb a bossage wall.)

Cheval-de-frise: This French term ("horse of the Frieslanders") originally referred to a spike-covered log placed on the ground as an obstacle for attackers (this is also referred to as a *frizzy-horse*). It later also referred to placing a line of spikes, nails, broken glass, or the like on top of a wall to make it dangerous for a climber to grasp the top and pull himself up.

Clamping: The use of vertical or horizontal layers of stone blocks to strengthen a brick wall.

Corrugations: Where towers were unaffordable or inadvisable, a wall could be built with *corrugations* — outward bowing that allowed the defenders to engage in flanking fire along the wall face.

TOWERS

Walls alone don't make a castle; it also needs towers to house the defenders and support those walls.

The Donjon, Or Keep

The main tower of a castle, often located in the center detached from the walls but sometimes attached to a wall (typically toward the back of the castle), was the *donjon*. (The English term for this structure was the *keep*, but that term wasn't used until after the Middle Ages.) The donjon was the best-protected part of the castle, and usually the residence of the castle's lord or commander (and perhaps his family).

Early donjons were square and made of wood. As construction techniques and materials improved, stone replaced wood, and by the 1100s round donjons came to predominate. Heights and sizes varied tremendously, but a typical donjon was about 20-30 meters tall (with a few ranging as high as 35-37 meters), and as much as 20-30m by 15-25m wide and deep (or about 15-35m in diameter, if round). A donjon's outer walls were usually 1.5-2 meters thick, but some as thick as 5m are known.

Early donjons tended to be broader and wider than they were tall, and were sometimes later referred to as *hall keeps*. They usually had one more interior cross-walls for support and to split up the interior space. As funding and construction methods improved, donjons became taller than they were broad, and didn't require interior cross-walls; these are sometimes known as *tower keeps*. Later donjons which were designed more for comfort or for residential purposes than military defense are sometimes referred to as *chamber towers* or *tower houses*.

As a defensive measure, the entrance to some donjons (and other towers) was above the ground and could only be reached by a ladder. A similar tactic was to build the floor of the entrance room several feet below the door so that attackers had to use a ladder or risk a dangerous jump.

Other Towers

Besides the donjon, castles had many types of towers. As the most distinctive parts of the overall structure, towers often had special names or were more elaborately decorated than the walls.

A *corner tower* was a tower located where two walls formed a right angle corner. A *mural tower*, on the other hand, was a tower built into the wall itself, in effect "connecting" two sections of curtain wall. The placement of mural towers was often dictated by the topography of the site (which shaped the walls), but where possible towers were placed no more than one bowshot from each other so they could provide full coverage of the wall face.



Many mural towers bisected the wall evenly (half the tower outside the wall, half inside). Access to the tower from the allure was via doorway, though some towers had drawbridge-style doors that could be pulled up if the enemy captured the battlements, trapping him on the allure. Breteches often protected the doorways. A *recessed mural tower* was mostly inside the wall; a *flanking tower* or *projecting tower* was mostly or entirely outside the walls to improve the defenders' angle of flanking fire along the wall face.

Tower Shape And Size

Towers came in many shapes. The earliest ones were all square, and square towers were still being built in later times. However, other shapes soon evolved: round; semi-circular (D-shaped); polygonal/octagonal; even triangular.

Round towers had several advantages over square ones. They required less material for the same amount of space, had fewer "blind spots" blocking the defenders' missile fire, were more resistant to besiegers' missile weapons and battering rams, were less susceptible to sapping, and could be dome-vaulted inside to make them much less likely to catch fire. On the other hand, it was easier to plan and use interior spaces in a square tower, and square structures have more long-term stability than round ones (which is why more square than round towers survive today).

Some towers were shaped *en bec*, that is, with an angular "prow" or "beak" facing the most likely direction of attack. This made it harder for an attacker to get a solid hit with a missile.

Towers were typically taller than the curtain walls, often much taller. This improved the defenders' ability to watch for approaching enemies, and allowed them to attack enemies who captured the battlements. However, in some later castles, called *block castles*, heavy towers and thick walls had the same height, creating a continuous roof that made it easy for defenders to move around, communicate, and use siege engines or cannons.

Some towers were flat on top, rather than having a sloping roof, so they could hold soldiers and siege engines; they had a battlement around the circumference of the roof. Sometimes a tower was built with *two* wall-walk areas: the main one around the main circumference of the top of the tower, and a smaller one on an elevated "mini-tower" projecting up from the middle of the roof. This allowed for more firepower, and gave the defenders a final fallback position to defend if the rest of the tower were taken.

Tower Features

The base of a tower, like a wall, is known as a *plinth*, and was often similarly shaped or strengthened to resist attack.

A tower's elevation, or sides, were known as the *gorge*. In some cases the interior gorge was left open. This not only made it easier to get men and supplies into the tower, it allowed the defenders to attack invaders who managed to capture the tower. Towers along the list wall, for example, were often left open this way.

The tops of towers were often crenellated so they could serve as platforms for defenders or siege engines, and sometimes had bartizans. Sometimes the top of a tower was built as, or replaced with, a *pepper-pot tower*, sort of a large bartizan able to hold many men instead of just one.

GATES AND DOORS

No matter how thick the walls and strong the towers, a castle has to have a way in so its inhabitants can pass in and out, visitors can visit, and subjects can bring goods to their lord. But in time of war the gate becomes the most vulnerable part of a fortification, the focus of many of a besieger's attacks.

The Drawbridge

If a castle's protected by a moat or fosse (see below), the first part of the gate complex that an attacker has to deal with is the *drawbridge* — a wooden bridge the defenders can raise so that no one can get in. Some drawbridges were raised on chains by winches located in the gatehouse (see below). (Some castles had drawbridges that rolled outward from the castle on wheels.) Later, more sophisticated versions, known as *turning bridges*, were supported by a central axle (a trunnion) in the middle and had a pit under the back half. When a counterweight was released, the back half of the drawbridge dropped into the pit, raising the front half to present the usual obstacle... and an attacker who managed to smash through the thick wooden planks then had a pit in his way! Turning bridges could also be raised and lowered much more quickly and easily than standard drawbridges.

Castles where a lot of traffic was expected through the gate often had "split" drawbridges. One part was large enough for carts and men on horseback, while the smaller part next to it was only large enough for people on foot. That way half the drawbridge could be raised to keep carts out, while still allowing people to pass back and forth.

Castles with particularly wide moats/fosses sometimes had double drawbridges. A gatehouse built on a platform mid-moat controlled the first one, and the main gatehouse in the castle itself controlled the second.

Gatehouses And Barbicans

Since the gate was the most vulnerable part of a castle's walls, castle builders tried to come up with ways to protect it as much as possible.

A *gatehouse* or *gate tower* was a defensive structure, or part of the overall wall, through which the entranceway passed. The earliest towers seen in fortifications were in fact gate towers which flanked the gate. In addition to offering the defenders a place to attack besiegers (via arrows fired from its parapet or loopholes, objects dropped through murder holes, and the like), a gatehouse contains the winch or other machinery needed to operate the drawbridge.

In many cases the approach to the gatehouse is placed at right angles to the actual gate, making it impossible for an attacker to charge the gate directly or effectively use a battering ram on it. The corridor through the gatehouse itself might also bend, further slowing down intruders and providing more opportunity to attack them from loopholes in the walls or murder holes in the ceiling.

For further protection, many gates had *barbicans*. A barbican was an additional fortification placed in front of the gatehouse proper. Some were basically crenellated walls connected to the gatehouse and main castle walls, creating a sort of narrow passage to the gatehouse through which an attacker would have to pass while under constant arrow fire from atop and within the walls. Often this sort of barbican was set at right angles to the gate, again to foil direct charges and ramming. Another type of barbican, which became more popular in later periods and after the development of cannon, was a detached outwork in the moat/fosse linked to the gatehouse by a bridge or drawbridge (and accessible from the mainland or glacis only by another bridge/drawbridge). A detached barbican had its own crenellated walls and other defensive features, and was often bristling with armaments.

Similar to a barbican was a *bastille* (or *châtelet*), a two-towered masonry fortification used to block a gate or passage in French castles.

The Gate

The gate itself was typically a set of heavy wooden doors, often banded or reinforced with metal, large enough to admit a cart or group of men on horseback. When closed they were locked into place with one or more heavy beams that fit into slots or holes in the gatehouse walls.

In Scotland, some smaller castles and towers had a *yett* instead of a gate. A *yett* is a door made of a latticework of iron bars cleverly forged together for strength, and reinforced with wooden panels in the interstices.

THE PORTCULLIS

As a further protective measure, a gatehouse could have a *portcullis* (pl. portculli) installed in front of and/or behind the gate. A portcullis is a large latticework panel made of heavy timbers and shod (and perhaps reinforced) with iron that raises and lowers vertically. A portcullis before the gate barred access to it until chopped through; one behind the gate trapped attackers in the gatehouse corridor where they were exposed to constant attack by the defenders.

A similar defensive measure is the *organ*, seen primarily in castles built after the Middle Ages. It consists of a horizontal top bar from which hang a series of vertical bars (so that it somewhat resembled a church's pipe organ, hence the name). An organ was somewhat weaker and less effective than a full portcullis.

THE CHICANE

Beyond the gate and gatehouse some castles had a *chicane* — a rear-yard full of obstacles where the defenders could ambush or delay attackers.

OTHER TYPES OF GATES AND DOORS

Many castles, particularly early ones, had just a single gate. This was defensively sound, but often inconvenient for daily life... and if the enemy captured the gate there was no way for the defenders to flee the castle. Therefore as castle construction evolved it became common to have multiple gates. Main ones were each protected by their own gatehouse.

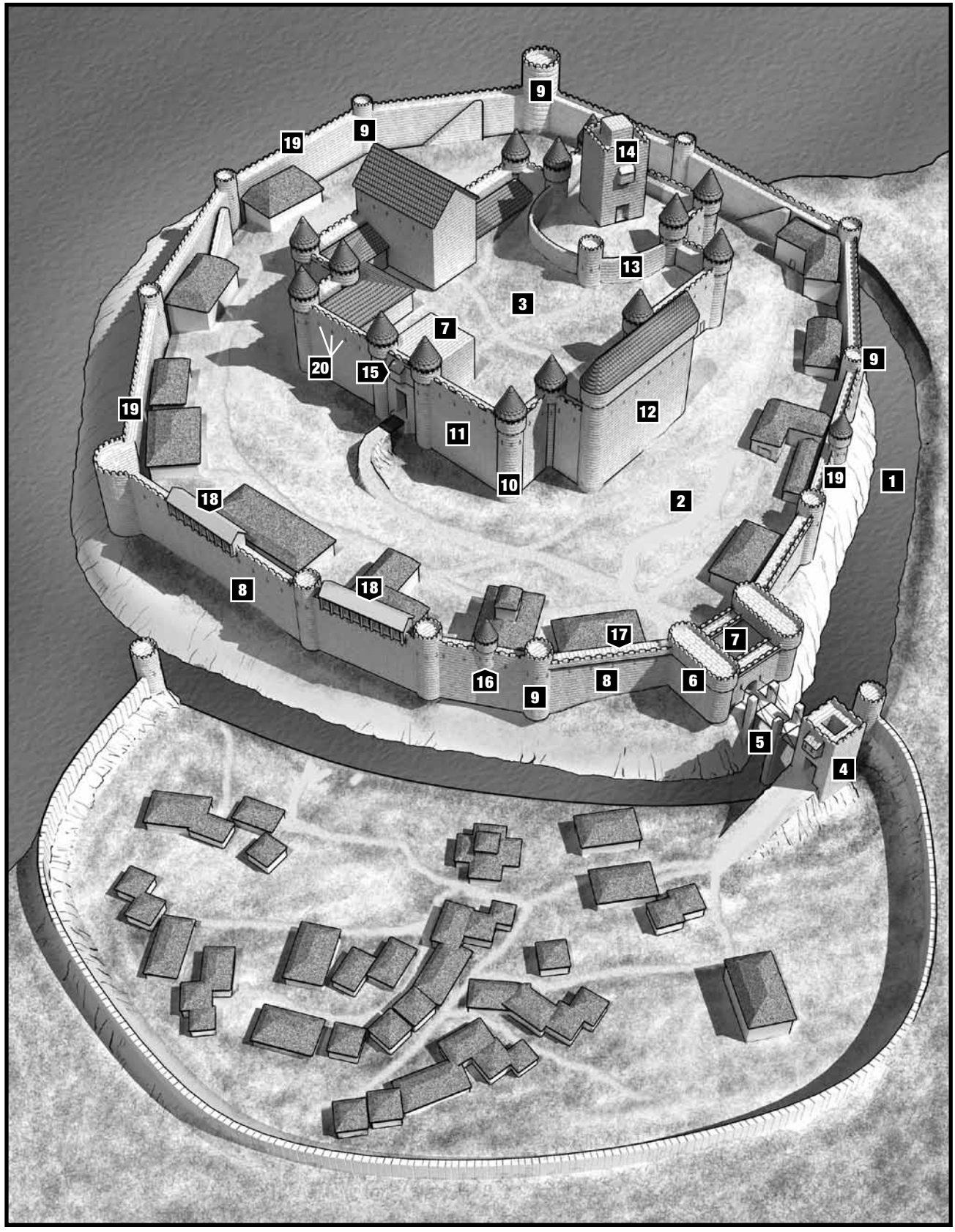
A *postern*, also known as a *sally port*, was a gate or door small enough for one knight and his horse to fit through. As the name implies, defenders often used them to make sallies (attacks on the besiegers outside the castle walls). Some were concealed; others were heavily defended (often by being set into a mural tower that could protect them). A postern gate could also be used to escape the besiegers, and in times of peace made it easier to come and go from the castle.

A *wicket door* or *wicket gate* was a person-sized door set in the castle gates. It could be opened to let people in and out without having to open the whole gate. Naturally this created a vulnerability in the gate itself, so the wicket door had to be well-barred if it existed at all.

A *water-gate* was a sort of gatehouse over a navigable river. Instead of doorways it had arches watercraft could pass under, which could be blocked with portculli or heavy chains to bar passage.



2



CASTLE LEGEND



1. Moat



2. Outer Bailey



3. Inner Bailey



4. Outwork



5. Drawbridge



6. Barbican



7. Gatehouse



8. List Wall



9. Mural Tower



10. Corner Tower

11. Enceinte/Curtain Wall



12. Shield Wall



13. Chemise



14. Donjon/Keep



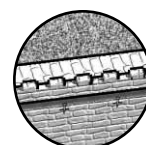
15. Bretèche



16. Bartizan



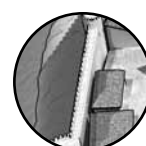
17. Machicolations



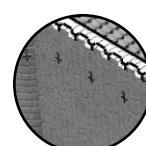
18. Hoardings



19. Battlements



20. Loopholes



MOATS AND DITCHES

Before an attacker could even get to a castle's walls or interior, he often had to contend with one or more *moats* — trenches around the perimeter of the castle. Moats can protect a castle from direct assault, thwart attempts at sapping the walls, and hinder attackers trying to take advantage of a hole knocked in the wall by siege engines.

To serve its purpose, a moat has to be deep enough that a man can't wade through it, and wide enough that he can't leap over it (making the inner edge flush with the castle wall also prevents leaping, of course, since there's nowhere for a leaper to land). In early castles most moats were no more than three meters deep, and somewhat wider; the dimensions often depended on how much earth the builders needed to excavate for the ramparts. In the 1000s and later, moats became larger, often as much as 12-20 meters wide and up to 10 meters deep. Some came right up to the castle walls; others had a small strip of land between the scarp and the walls.

A moat could be either wet (filled with water) or dry (empty, or filled with dangerous things like thorns and brambles, sharp spikes set into the ground, or the like). The interior side (closest to the castle) was called the *scarp*; the opposite side was known as the *counterscarp*. Either scarp could be reinforced with a revetment if necessary to prevent erosion.

A wet moat, also known as a *douve*, is what most people think of when they hear the term moat. By most accounts they were far less common than dry moats in early Western European castles, though they became much more common later in the Middle Ages. Wet moats were almost ubiquitous in Eastern Europe throughout medieval times due to the more common presence of natural water and a higher water table there. Some wet moats were so broad that they were effectively ponds around the castle (and were often created by damming a river or stream that flowed near the castle).

Wet moats were an excellent obstacle, and if filled with moving water channeled from a nearby body of water could sometimes be fished in. But they also presented some problems. First, they could erode the base of the castle walls over time. Second, unless the water were constantly refreshed from a nearby body of water, it would stagnate, creating both a stench and a potential health hazard. Third, stagnant or not, a wet moat often became a repository for trash and human waste, worsening problems of odor and disease.

A dry moat, also known as a *fosse*, was the most common type of moat. It usually had a small draining channel called a *cunette*, and a few castles even covered the bottom of the moat with tile or stone.

Wet or dry, either type of moat was often filled with other obstacles, such as sharpened stakes along the floor, to make the attacker's job even more dangerous. Stakes could also be placed on

the scarp as an additional obstacle to climbing out of the moat.

Either type of moat might be formally or informally bridged at additional locations during times of peace. These bridges were usually torn down if the castle were attacked... but not always in time.

BASTIONS AND OUTWORKS

When cannons became a major factor in warfare, castle designers had to consider not only ways to protect a castle against them, but how best to use cannons for defense. Cannons require a flat, sturdy platform large enough to handle the recoil and with room for the cannon crew to operate effectively, sufficient ventilation to prevent smoke build-up, and preferably enough angles of fire to maximize the cannon's utility as a defensive weapon.

The solution that was developed by Italian combat engineers in the early 1500s was the *bastion*, a structure typically the same height as the curtain wall that projected beyond it so the defenders had angles of fire on attackers at the wall face. (Some later bastions were shorter than the curtain wall, though those are more properly termed bulwarks; see below.) Early bastions were usually half-oval or triangular in shape, but as experience with using cannons for defense and protecting them from attackers increased, the bastion evolved into a sort of five-sided spade- or arrowhead-shaped structure. The two sides that met in a salient (point) toward the enemy were known as faces; the two sides that connected the faces to the castle wall were the flanks; the shoulder is where a flank and face meet; and a flank was sometimes recessed slightly to create a structure called an *orillon* ("ear"). The orillon essentially took the place of corner and mural towers, allowing the defenders to fire at enemies anywhere along the wall face.

Some bastions were also casemated to create chambers for cannons inside the structure, which were fired out of gunports; these were known as *artillery towers*. (Other terms for artillery tower include roundel, rondelle, bastei, basteja, bastillon, and torrionne.) The casemated level allowed for cannon fire closer to ground level, though observation was poor and ventilation a frequent problem.

Similar to a bastion was the *bulwark*, a low-lying platform usually made of earth outside the castle walls. (Other words for bulwark include bollwerk, boulevard, and balovardo.) Some castles were almost entirely surrounded by bulwarks; in others they were built only at specific places around the walls. Unlike a proper bastion, a bulwark isn't attached to the curtain wall or as tall as it. Some commentators use the terms "bulwark" and "bastion" or "artillery tower" interchangeably, and in fact some bulwarks that started out as simple earthen platforms evolved into what were essentially massive, squat bastions/artillery towers.

The *ravelin*, also called a *lunette*, demi-lune, or half-moon, is a form of bastion that's detached from the castle proper; as its names indicate, it was typically crescent-, D-, or triangular-shaped. Like so many other elements of the bastion system it was intended to increase the defenders' number of angles of fire. In some cases a ravelin connects to the castle via a protected walkway, making it essentially the same thing as a detached barbican.

The *fausse-braie* is an outwork similar to a casemate (see page 45) (and in fact it could be casemated). It consisted of a sort of parapeted low rampart between two towers, thus creating a cannon platform with a better angle of fire at attackers on the ground. It was usually built in front of a fosse, to protect it and the lower walls of the castle.

A *caponnier*, also called a *moineau*, was a small, enclosed, single-story outwork projecting from the castle wall at a right angle, often across a moat/ fosse. It allowed the defenders to fire along the wall face at ground level.

A *covered way* was a broad, battlemented area just outside the counterscarp of the fosse as a first line of defense. The crest of its parapet was aligned to the slope of the glacis for a deadly angle of fire on the attackers.

A *cavalier* was not necessarily an outwork, though it evolved as part of the bastion system. It's a raised section along the walls or in the center of a bastion. This improved the defenders' ability to observe the battlefield and obtain as many angles of fire as possible.

THE INTERIOR OF A CASTLE

A full discussion of the internal arrangements of a castle and daily life in a castle is beyond the scope of this chapter, but a few points are worth noting.

Travel within a castle's buildings was by means of corridors and staircases. Until considerations of the residents' comfort became more important, corridors were often kept narrow, so they could be held by a single defender. Spiral staircases around columns were usually built to rise in a clockwise turn, thus allowing defenders coming down (or retreating upward) to use their swords (held in the right hand) freely, while impeding the sword-blows of an attacker coming up.

Defenders had plenty of other tricks they could play on invaders. Sometimes areas of a castle were deliberately laid out in ways that would confuse a stranger or provide potential ambush points. There might be secret passages so that defenders could move about unseen or spring out on an enemy by surprise, and trapdoors and similar traps were not unknown. (See pages 271-75 of *The Ultimate Skill*, or page 169 of this book, for some example traps and related security devices appropriate to castles.)

The sanitary conditions of most castles were, by modern standards, horrible. Early castles had nothing but chamber pots, which were dumped over the walls into the moat when full. Beginning around the 1000s *garderobes*, or latrines, appear in castles. They're typically a small chamber next to a tower wall (or even built just outside the tower like a *bretèche*) with a hole/channel that carried the waste out to ooze down the wall into the moat. (Some types led to a cesspit instead.) Later, more elaborate, castles had *sanitary towers* (also called *danks*) — a tower detached from the castle proper and connected to it by an elevated walkway where the garderobes were. This reduced some of the stench and health problems associated with regular garderobes.

In many sieges, the attackers' most important weapon wasn't a siege tower or a trebuchet, it was starvation and dehydration. If possible, castle designers made sure to include a well inside the castle to ensure a constant supply of fresh water, but not all castle sites could support a well. (Alternately, the walls of a castle might be constructed to enclose a natural source of water, such as a spring or part of a stream, though that might leave part of the water accessible to the attacker, who could block or poison it.) Similarly, many castles had gardens (or even, in the case of really large castle complexes, pasturage) inside the walls, though this could only go so far to keep the castle supplied with food. A castle expecting a siege either needs to stock up on provisions (potentially years' worth of them) or ensure some way to keep a flow of supplies coming despite the presence of attackers.

FANTASY INFLUENCES ON CASTLE DESIGN

The information provided above concerns historical castles and fortifications. But a Fantasy Hero campaign may have many aspects that go far beyond the bounds of historical "reality," and which thus may influence how you conceive of and design castles.

MAGIC

Arch-Mage Mael Lel Laio (he lived in a palace carved from a single moon-stone)

—Jack Vance describes one of the great magicians of the Dying Earth in *Rhialto the Marvellous*

The most important Fantasy factor you'll have to consider when creating a castle is the existence of magic. Since magic systems can vary wildly from campaign to campaign, only general advice can be provided here; the GM will have to address any issues that come up specific to how magic works in his world.



2

Magic can have three basic effects on castles. First and foremost, it can be used to attack or defend a castle. This could be as low-key as casting a disease-spell to inflict a plague on a castle's defenders, or as flashy as using a spell to hurl a gigantic boulder at a castle's walls. There could even be entire schools of magic devoted to large-scale combat (such as Areomancy in *The Fantasy Hero Grimoire II*). Conversely, the defenders could use magic to protect their castle — at the very least, they'll need counterspells to negate the sorceries employed by their attackers. (In fact, if the GM doesn't want to deal with the issues posed by introducing magic into a siege situation, he can simply assume that both sides have wizards working for them, and that their efforts at spell and counterspell simply cancel each other out, leaving the siege to be resolved by "traditional" means.) Other possibilities for defensive magic include disintegrating an attacker's siege engines, creating a massive illusion of an army coming to assist the castle, or placing a curse of incompetency or ill luck on the attackers.

Second, magic makes it possible to build castles out of materials that are unavailable (or even nonexistent) in the real world. Historically, metal was only used to reinforce wooden structures in castles, but in a Fantasy realm castle walls and towers could be constructed of solid metal! Similarly, a wizard could create a castle made of glass enchanted to have the hardness of granite, carve a mansion out of a gigantic gemstone, solidify water, air, or fire to create walls and buildings, or form a castle out of pure arcane force. And Fantasy castles can have structures and internal arrangements that are architecturally impossible in the real world, such as huge towers attached to the castle walls by slender buttress-like structures. The possibilities are limited only by the magic system, the nature of the setting, and your imagination.

Third, magic allows characters to build castles nearly anywhere, regardless of whether the chosen location was feasible in the real world. Castles on the tops of inaccessible mountains, underneath the water, amidst the clouds, in enormous underground chambers, out among the stars, or on rocks jutting out from waterfalls are all possible — and the castle that floats or flies in the air is a Fantasy staple.

MONSTERS

Most Fantasy worlds feature monsters, ranging from the relatively small and harmless (enormous vampire bats), to humanoid beings like orcs and ogres, to the gigantic and powerful (dragons, rocs, titans). Building a floating castle is a great way to make it invulnerable to typical land-based enemies... but it may turn out to be a poor choice if gargoyles, dragons, or other dangerous flying monsters are commonplace.

A besieging army may employ monsters to help with the attack. An ensorcelled (or well-paid) giant may be able to knock down castle walls faster than any trebuchet, and a flock of harpies can fly right over the walls to attack the defenders and foul their supplies. Gigantic beasts can pull siege engines far larger than any ever built in the "real world." Cheap, mass-produced golems make more durable soldiers than humans, and they don't need to be fed either.

On the other hand, a castle's defenders may have monsters working for them. Sappers will have a hard time reaching the castle walls if tamed carrion worms burrow through the ground beyond the moat in search of succulent human prey; and that moat may have monstrous fish just waiting to devour any attacker unlucky enough to fall in. The very waters of the moat could be a water elemental of some sort that can attack anyone who gets too close.

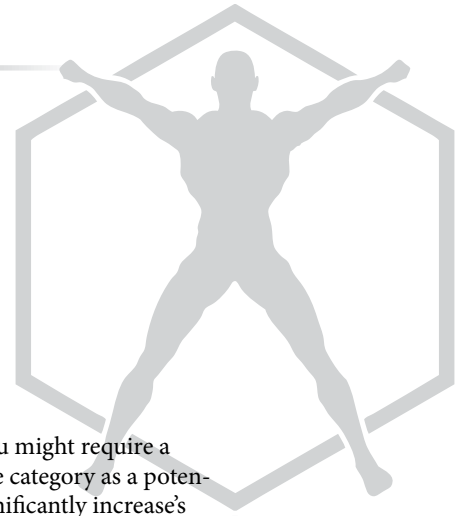
THE GODS

But Diomedes raged on, working havoc in the Trojan ranks until he came face to face with Hector. There to his dismay he saw Ares too. The bloodstained murderous god of war was fighting for Hector. [Aided by the goddess Hera, Diomedes] rushed at Ares and hurled his spear at him. Athena drove it home, and it entered Ares' body. The War-god bellowed as loud as ten thousand cry in battle, and at the awful sound trembling seized the whole host, Greeks and Trojans alike.

—the gods fight among men during the Trojan War in a scene recounted in Edith Hamilton's *Mythology*

In a High Fantasy campaign where the gods get involved in the affairs of men, they may influence castle design. A temple or chapel (or even more than one) may become a mandatory part of any castle so that the gods can be kept propitiated on a regular basis, lest they take offense and destroy the castle. Attackers will invoke their gods to help with a siege, while the defenders will likewise call on their own deities for protection; the battle may even spill into heaven itself, as in Homer's *Iliad*. In some settings a lord may even have to get the gods' permission to build a castle at all, much like historical nobles had to get from their king.

BUILDING A CASTLE



Now that you know what the parts of a castle are and how they're used, you can create them using the *HERO System's* Base rules. This section of Chapter Two provides two sets of guidelines for *HERO System* castle creation: a simple set of rules for campaigns that don't need a lot of detail; and an optional, much more detailed, system for in-depth castle creation. The "advanced" system treats many castle components as distinct parts with specific rules for how much BODY and defense they have, and their other attributes.

CASTLE CHARACTERISTICS

SIZE

For both basic and advanced castle creation, since a castle is a building with usable interior space, you should buy a castle's Size based on its volume (unless the GM prefers otherwise). For concentric castles, castles with large baileys, and the like, the GM may allow you to determine the volume of just the actual buildings and treat the "open" areas as the Base's grounds.

BODY

For basic castle creation, determine the BODY of a castle based on the materials and size of its strongest component — typically either the curtain walls, or the walls of the donjon. The Wall Table on page 55 provides suggested guidelines for different types and thicknesses of material, such as wood or stone. That tells you how easy it is to break a hole in, or destroy, the sturdiest part of the castle. The GM can then use logic, common sense, and dramatic sense to determine how much damage it takes to destroy lesser parts of the castle.

In the event that the castle's made of two different types of material — such as a stone donjon with a wooden palisade — buy the BODY based on the *weakest* material, then represent the stronger materials by buying more BODY with the *Partial Coverage* Limitation (see page 31).

Depending on the size and nature of the castle, you may want to increase its overall BODY beyond what's dictated by its walls or other major

components. For example, you might require a minimum of 1 BODY per Size category as a potential guideline. Even if that significantly increases the castle's BODY, the GM can use the rules on 6E2 172-73 to determine how easy it is to break a hole in a castle wall.

In the advanced castle creation system, you don't buy BODY as a single Characteristic — you consider the BODY of each major component of a castle individually. Then you can add them up to determine the Base's overall BODY if you want to (though that generally isn't necessary, since knowing the components' BODY means you can determine the effects of an attack on a component alone, rather than generalizing it as damage to the overall castle).

With the GM's permission, a castle built with the basic rules can buy its BODY with the *Partial Coverage* Limitation at a $-\frac{1}{4}$ value to represent the fact that the bailey (courtyard) isn't enclosed, thus leaving it vulnerable to attacks from the air (or arced missile weapons, such as rocks thrown by catapults or trebuchets).

PHYSICAL DEFENSE, ENERGY DEFENSE

Physical Defense and Energy Defense work just like BODY. For the basic castle system, use the defense of the material that most of the castle's built of (typically stone); if there are many different materials buy the least protected as a baseline, then buy more with the *Partial Coverage* Limitation to represent other parts of the castle. For the advanced castle-building system you buy the defense of different parts of the castle individually, rather than as two Characteristics that apply to the overall Base.

With the GM's permission, a castle built with the basic rules can buy its PD and ED with the *Partial Coverage* Limitation at a $-\frac{1}{4}$ value to represent the fact that the bailey (courtyard) isn't enclosed, thus leaving it vulnerable to attacks from the air (or arced missile weapons, such as rocks thrown by catapults or trebuchets).

LOCATION

Location is bought for either basic or advanced castles according to the standard rules. The GM may also require the *Restricted Accessibility* Perk (page 26).



2

OTHER BASE ABILITIES

Under either the basic or advanced castle-building system, if you want your castle to have a specific ability or piece of equipment — an enchanted cell that can hold wizards, a radar installation, a lab of some sort, a spell of protection from fire — the Base buys that individually.

CASTLE COMPONENTS

The difference between using the basic *HERO System* Base rules to create a castle, and the advanced rules described in this chapter, is that the advanced rules require you to buy each major component of a castle separately so that you can determine the effects of attacks upon it.

Walls

The most important part of a castle is its walls, and they're usually the best place to start when creating a castle Base.

BASIC RULES

Under the basic rules, a castle's walls have the same BODY, PD, and ED that are bought for the overall Base (in fact, the Base's Characteristics are often chosen based on what type of walls it has). See the accompanying Walls Table for suggested Characteristics for different types of walls.

If you want your castle to have two or more walls (such as a scarp wall or list wall in addition to the enceinte), typically that's just part of how you define the overall layout of your Base (just like

you can define the internal arrangement of rooms to benefit the defenders tactically). However, in some instances the GM may prefer that you buy the enceinte, then buy any additional walls using the 5-point doubling rule.

ADVANCED RULES

For the advanced rules, the cost of a wall is based on its height, width, and length. Each wall (enceinte, chemise, list wall, or the like) must be bought separately (the GM can permit the builder to buy secondary walls with the 5-point doubling rule, though it's usually better for the castle to pay the full cost for each distinct wall).

THE BASIC WALL

To buy a wall, first determine the material it will be made of, and how thick it will be, then consult the Castle Wall Table. It lists the amount of BODY (based on thickness) and PD/ED that a wall should have based on the materials it's built with. (For thicker walls, follow the progression indicated in the table, typically +1 or +2 BODY for each doubling of thickness.) Pay 1 Character Point for each point of BODY. Each up to 2 points of defense for a wall costs 3 Character Points; these 2 points must be defined when bought as PD or ED as listed on the table.

That cost gives you a section of wall of the defined thickness that's up to 2m long by 2m tall. Each doubling of the number of 2m x 2m sections of that thickness (or fraction thereof) costs +1 Character Point. (If a wall is corrugated, each doubling of the number of 2m x 2m sections costs 1½ Character Points instead.)

Example: *Prince Wolfgang decides he needs to build a sturdy castle to protect the Northern Marches from marauding bands of dwarven barbarians and invasions by ice trolls living in the Snowthorn Mountains. Based on the layout of the land at his chosen site, he plans a castle with ashlar stone walls 200m long, 16m tall, and 4m thick.*

Wolfgang consults the Castle Wall Table. A stone wall 4m thick has 15 BODY, and stone as a material has 6 PD, 10 ED. A 2m x 2m section of that wall thus costs him (15 + 24 =) 39 Character Points. He needs another 799 such sections to complete his wall. That requires 10 doublings, for a final cost of 49 Character Points.

The wall described here is just a flat vertical structure. It lacks battlements, a reinforced plinth,

loopholes, or any other feature. All those things are bought separately, as described below.

If a wall is made of two different materials, buy the overall wall with the BODY and defenses of the weaker material, then buy the additional stronger BODY and defense with the *Partial Coverage Limitation*. For ramparts (walls made by filling a framework with earth and stones), see the note in the Walls Table.

If a wall is built of stone (as most will be, in the typical Fantasy Hero campaign), you can define it as being made of ashlar or bossed stone; neither choice costs additional points. Ashlar is the default, and has no special benefits or drawbacks. Bossed stone gets +1 PD versus missile fire, but provides a +1 bonus to Climbing rolls when characters try to scale it.

WALLS TABLE



Material	BODY By Thickness*												PD	ED
	1-3	4-7	8-15	16-31	32-63	64	125	250	½m	1m	2m	4m		
Earth	0-1	0-1	1	1	1	2	3	4	5	6	7	8	0	4
Blocage, mostly earth	0-1	1	1	1	1	2	3	4	5	6	7	8	—	—
Blocage, earth and stone mix	1	1	1	2	3	4	5	6	7	8	9	10	—	—
Blocage, mostly stone/rubble	1	1	2	3	4	5	6	7	8	9	10	11	—	—
Wood and Plaster	1	1	1	1	1	1	2	3	4	5	6	7	3	3
Peat Brick	1	1	1	1	1	2	3	4	5	6	7	8	2	4
Bone/Ivory	1	1	1	1	2	3	3	5	6	7	8	9	4	5
Glass, Enchanted	1	1	1	1	2	3	3	5	6	7	8	9	5	5
Ice, Enchanted	1	1	1	1	2	3	3	5	6	7	8	9	5	4
Wooden Planks	1	1	1	1	2	3	4	5	6	7	8	9	4	4
Wooden Logs	1	1	1	2	3	4	5	6	7	8	9	10	5	5
Stone, Rough	1	1	1	2	3	4	5	6	7	9	11	13	5	10
Brick, Basic	1	1	2	3	4	5	6	7	8	10	12	14	5	10
Brick, Reinforced	1	1	2	3	4	5	6	7	9	11	13	15	7	10
Concrete	1	1	2	3	4	5	6	7	9	11	13	15	6	10
Stone, Worked	1	1	2	3	4	5	6	7	9	11	13	15	6	10
Concrete, Reinforced	1	2	3	4	5	6	7	9	10	12	14	16	8	10
Plastic, Heavy	1	1	3	4	6	7	9	10	12	13	15	17	6	6
Metal, Bronze/Brass/Copper	1	2	3	4	6	8	10	11	13	15	17	19	10	15
Metal, Iron/Steel	1	2	3	5	7	9	11	13	15	17	19	21	13	20
Metal, Adamant/Enchanted	2	3	5	7	9	11	13	15	17	19	21	23	16	24
Force	2	3	5	7	9	11	13	15	17	19	21	23	20	20

*: Listed thicknesses are in millimeters (mm) until the 500mm (½m) point, when they are listed in meters.

Ramparts: A rampart is a wall consisting of a framework (an outer wall and a revetment) of the listed material filled with blocage (earth, stone, and rubble). To simulate this, buy the PD and ED of the material used to frame the rampart (such as 6 PD, 10 ED for worked stone), and buy the BODY listed for *Blocage* on the table. When light materials (such as woven wicker panels) are used to hold the earthen rampart in place, you can simulate this by increasing the PD/ED of the earth slightly.

Many of these materials of course weren't used to build medieval castles, but may be appropriate for some Fantasy Hero games or other campaigns. Metal walls typically require magic to build; Glass always does if it's intended for actual protection and not as decorative/artistic buildings. Plastic may also require magic; this entry assumes a heavy reinforced plastic sufficient to stand as a defensive wall and support related structures. Concrete assumes society has discovered it and learned how to use it; the Romans did, though the technology was generally lost in the 400s and not rediscovered until 1756. Reinforced brick and concrete usually feature an integral metal structure that strengthens a wall made of the material.

THE PLINTH

If you want to buy a reinforced plinth to give a wall greater stability and protection from attacks like battering rams and sapping, buy some extra BODY (no more than +2, typically, which would represent up to a doubling of depth) for all the bottom 2m x 2m sections of the wall.

Example: *Knowing that ice trolls often use battering rams (an effective weapon due to the trolls' enormous strength), Prince Wolfgang decides to thicken the plinth of his walls and give it a slight "battered" shaping so it better withstands ramming. He defines this as +2 BODY (+2 Character Points) for all the 2m x 2m sections along the bottom of his walls. That covers one 2m x 2m section, "doubling" that up to 100 sections to cover the entire base of the wall costs +8 Character Points, for a total cost of 10 Character Points.*

BATTELEMENTS

A battlement for a wall — an allure and crenellations — costs 1 Character Point per 20m (or fraction thereof) of wall protected. For a double set of crenellations (one forward, one rear), double the cost.

Example: *Naturally, Prince Wolfgang wants a battlement along the top of his walls. He's got 200m of walls, so that's +10 Character Points to the cost of his castle.*

HUCHETS

Building huchets into any part of a crenellated battlement costs 2 Character Points. They provide +1 DCV for persons on the battlements that only applies against enemy missile fire.

HOARDINGS AND MACHICOLATIONS

Building hoardings onto a battlement costs ½ Character Point per 20m (or fraction thereof) of wall protected. Machicolations cost double that, 1 Character Point per 20m (or fraction thereof) of wall protected.

Example: *Since he knows the trolls are likely to use battering rams, which require them to get close to the wall face, Prince Wolfgang definitely wants machicolations as part of his castle. He's got 200m of walls to protect, so that costs him +10 Character Points.*

Hoardings have PD 3, ED 2, and can withstand 4 BODY of damage per 1m section before that section's destroyed. Machicolations have the PD/ED of the material they're made from (typically 6 PD, 10 ED for worked stone), and can withstand 6 BODY of damage per 1m section before that section's destroyed.

BARTIZANS AND BRETÈCHES

Each bartizan or bretèche costs 3 Character Points. Each one gets one loophole (of any type) for free, and a bretèche is also machicolated (it has a hole in the floor for dropping objects on attackers) for free.

Each bartizan or bretèche has the PD/ED of the material it's made of (typically 6 PD, 10 ED for worked stone), and can withstand 6 BODY of damage before it's destroyed or rendered useless.

LOOPHOLES

Each loophole costs ½ Character Point. This can be a regular arrow slit, a crosslet, an oilet, a slit with oilets at top and bottom, whatever the castle's designer desires.

Example: *Prince Wolfgang decides to install 80 loopholes at various points along his castle walls. This costs +40 Character Points.*

CASEMATES AND GAINES

Building a casemate as an outwork attached to the outside of a wall costs 2 Character Points per meter of length (the casemate has a height of approximately 3m and a depth of approximately 3m). It has the same PD and ED as the wall (typically 6 PD, 10 ED for worked stone), and can withstand 6 BODY per 2m x 2m x 2m section before being destroyed.

A gaine through thick walls has a width of approximately 3m and a height of approximately 3m. To "buy" its length, reduce each 2m wide section of the lowest 2m of the wall that the gaine runs through by 1 BODY.

OTHER FEATURES

To buy a cheval-de-fries for a wall, build it as an RKA 1 point Damage Shield, using the Area Of Effect (Surface) rules to match the length of the wall you want to protect.

Towers

After the walls, the next most prominent and important parts of a castle are its towers, ranging from the donjon to the mural towers. Here's how to build them in HERO System terms.

BASIC RULES

Under the basic rules, a tower has the same BODY, PD, and ED that are bought for the overall Base. Use the Walls Table for suggested Characteristics for different types of walls in the event the tower's built of a different material than the walls and you want to simulate that by applying the *Partial Coverage* Limitation to one or the other.

A castle built under the basic rules can have as many towers of whatever type as its creator wants — it's just a question of how he lays out the "floor space" of the volume he purchased for his base.

ADVANCED RULES

For the advanced rules, the cost of a tower depends on its size and the materials it's built with. Each tower must be bought separately (the GM can permit the builder to buy some towers with the 5-point doubling rule).

THE BASIC TOWER

To buy a tower, first you must determine several things:

- the material the tower's made from (typically worked stone)
- the length of the tower's walls (the circumference of a round tower, or the sides of a square or rectangular tower added together)
- the thickness of the tower's walls

When you decide on a material, consult the Castle Wall Table. It lists the amount of BODY (based on thickness) and PD/ED that a tower's wall should have based on the materials it's built with. (For thinner walls, see the Wall BODY Table on 6E2 172; for thicker walls, follow the progression indicated in the table, typically +1 or +2 BODY for each doubling of thickness.) Pay 1 Character Point for each point of BODY. Each up to 2 points of defense for a wall costs 3 Character Points; these 2 points must be defined when bought as PD or ED as listed on the table.

That cost gives you a section of tower wall of the defined thickness that's up to 2m long by 2m tall. Each doubling of the number of 2m x 2m sections of that thickness (or fraction thereof) costs +1 Character Point.

Example: Prince Wolfgang arranges his castle in a rectangular shape, with two walls 60m long and two 40m long (for a total of 200m). He wants a corner tower at each of the four corners and one tower in the center of each short wall. Each long wall will have a gate/gatehouse in the center, so he wants one tower between each gatehouse and the corner towers flanking it. That's a total of 10 corner/mural towers (the gatehouse towers are bought as part of the gatehouse; see below). And of course he wants a donjon in the center of the bailey.

Wolfgang decides that the donjon will be rectangular, 25m x 20m, 30m tall, with walls 2m thick, made of worked stone. He checks the Castle Wall Table. A stone wall 2m thick has 13 BODY, and stone as a material has 6 PD, 10 ED. A 2m x 2m section of that wall thus costs him (13 + 24 =) 37 Character Points. To make the walls a total of 90m long, he needs 674 more 2m x 2m sections. That's another +10 Character Points, for a total cost for the donjon of 47 Character Points.

Now for the corner towers. They're going to be round, with a circumference of 50m each, 20m tall, with 4m thick worked stone walls. A 2m x 2m section of that wall thus costs him (15 + 24 =) 39 Character Points. To make one tower requires another 249 such sections, which cost +8 Character Points, for a total cost of 47 Character Points for the first corner tower. The GM lets him buy the others with the 5-point doubling rule, so for 57 Character Points he buys all four towers.

The last step is to build the mural towers. They're square, 8m on a side, 18m tall, with 4m thick worked stone walls. That means one tower costs 47 Character Points. Again the GM allows the 5-point doubling rule, so six such towers cost a total of 62 Character Points.

THE PLINTH; BATTLEMENTS; MACHICOLATIONS

A tower can have a reinforced plinth, just like a wall (and in fact a mural tower should have one, if the wall does, or else the tower is a vulnerable spot). You can buy this the same way as a wall plinth.

A tower can have a peaked roof, or a flat roof where defenders can stand, keep siege engines, and the like; neither type of roof costs Character Points. However, if a castle's designer wants a flat roof to have crenellations, those cost the same as battlements for the walls (see above). Similarly, a flat-topped tower can have machicolations for the cost listed above.

Example: Prince Wolfgang wants all ten towers along the wall to have flat, battlemented roofs. That's a total of 392m worth of roof to battlement, for a cost of +20 Character Points.

OPEN GORGE

If a tower has an open gorge to the rear, you can represent that by not buying any BODY or thickness for that part of the tower, making the tower much less expensive.

OTHER TOWER FEATURES

If you want a flat-topped tower to have a "mini-tower" in the center to provide more angles of fire, build the mini-tower (and its battlements) as a separate tower using the rules above.

A pepper-pot tower top costs 10 Character Points; it gets three loopholes (of any type) and machicolations for free.



Gates And Gate Features

Since they represent a major weak point in a castle's defenses, castle designers often pay particular attention to the gates.

As always, the GM should keep common sense and the *Real Weapon* Limitation in mind when characters attack a gate or similar structure. It's unlikely a character with a sword could quickly chop through a heavy wooden portcullis no matter how high his damage roll. One armed with an axe would get better results, but still probably couldn't chop through the heavy wooden beams at one stroke.

BASIC RULES

Under the basic rules, a gate (and the drawbridge) has the same BODY, PD, and ED that are bought for the overall Base. This isn't realistic, but it keeps castle design simple and efficient. For greater "realism," buy the gate's BODY, PD, and ED (typically 7 BODY, 5 PD, and 5 ED for heavy wood) for the entire Base, then buy the bonus to Characteristics representing stone walls and towers with Partial Coverage (-¼).

Similarly, a gatehouse has the same BODY, PD, and ED that are bought for the overall Base. Since gatehouses and barbicans are usually made of the same material as the walls, this works fine.

ADVANCED RULES

In the advanced rules there are special costs for gates and related features.

DRAWBRIDGE

A drawbridge is assumed to be made of heavy, reinforced wood (giving it PD 5, ED 5) and to be ½m thick. It has 7 BODY for the first 2m x 2m section. Therefore a 2m x 2m drawbridge costs 22 Character Points; each doubling of the number of 2m x 2m sections (or fraction thereof) costs +1 Character Point. (If for some reason a castle designer wants to use a material other than wood, you can upgrade the PD, ED, and BODY for the same cost as those Characteristics for walls.)

If the drawbridge is raised and lowered by chains and a winch, this costs no additional Character Points. The chains have PD 8, ED 12 and it takes 10 BODY damage to cut through one (assuming an attacker has an appropriate weapon — most weapons with the *Real Weapon* Limitation can't cut through such a thick chain, of course). The designer can increase this at the cost of +1 Character Point for +1 BODY per chain, but the GM should be leery of this. The winch mechanism has PD 4, ED 4, and 5 BODY.

If the drawbridge is a turning bridge, this costs an additional +10 Character Points.

Example: Prince Wolfgang decides on traditional drawbridges for his two main gates (see below). His moat is 15m wide, so he decides on a drawbridge 4m wide and 16m long. This costs a total of 26 Character Points for the first drawbridge — 22 for the first 2m x 2m section, then +4 for the remaining sections of the drawbridge — then +5 points to double it to two drawbridges. Thus, his two drawbridges cost him 31 Character Points total.

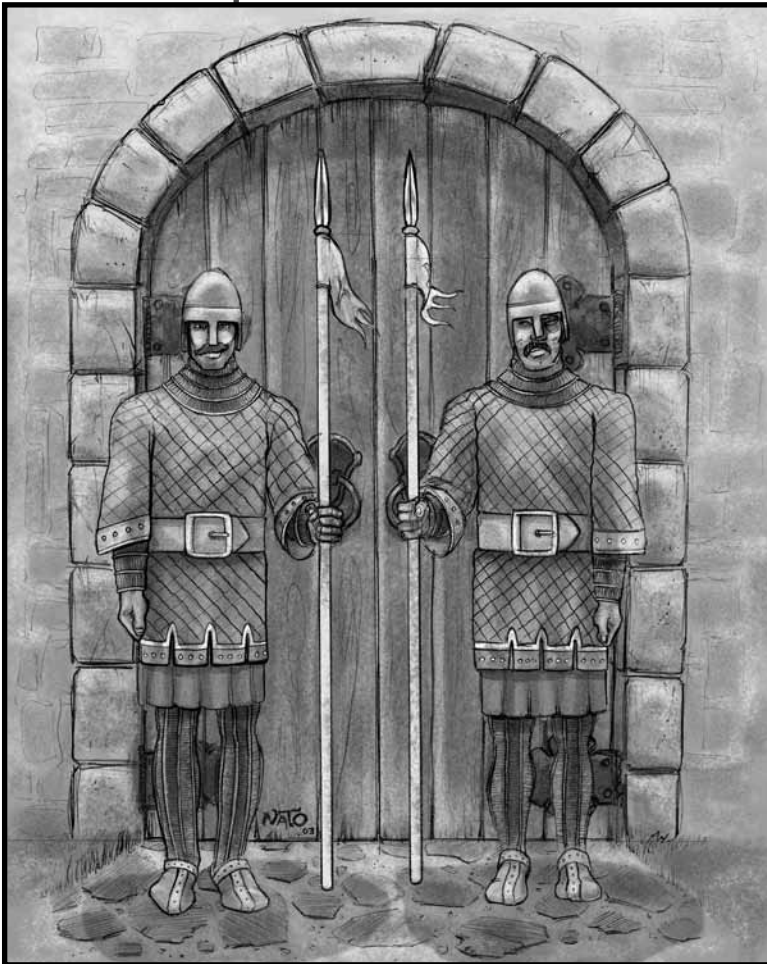
THE GATES

Like the drawbridge, the gates to a castle are assumed to be made of reinforced wood, and to be no more than about 5m wide and tall; thus they have BODY 7, PD 5, ED 5 and cost 30 Character Points. (If you want a substantially larger or smaller gate, or a gate made of different materials, change the cost appropriately.) If the gate has a wicket door built into it, reduce its cost by 3 Character Points and its BODY by 3.

Each postern gate or sally-port costs 5 Character Points and is assumed to be closed by a sturdy wooden door (BODY 4, PD 4, ED 4). If you want it to be concealed, you can buy the *Concealment* Skill for it as discussed on page 18.

Example: Prince Wolfgang decides to have a gate in both of the long walls of his castle; that increases vulnerability, but he prefers to have options rather than just a single entrance. The two gates cost him 60 Character Points. He also buys two hidden sally ports (two gates for 10 Character Points, plus *Concealment* 16-, *Partial Coverage* (-2) for 6 Character Points; total cost 16 points.)

2



THE GATEHOUSE

A gatehouse protecting a gate is essentially just an expansion of the walls, with towers. The two (or more) towers flanking the gate are bought using the tower rules described above. If the designer wants the corridor containing the gate to be longer than the thickness of the walls, he can increase the thickness of the walls there by buying some extra BODY (typically no more than +2 BODY, representing up to a doubling of wall thickness) with the *Partial Coverage* (-2) Limitation.

Each murder hole in a gatehouse (or elsewhere) costs 1 Character Point.

PORTCULLI

A typical portcullis is made of heavy wood beams (BODY 7, PD 5, ED 5), shod with iron, and often reinforced with metal as well. Think of it as a sort of wooden wall that spans the gatehouse corridor. That means it's usually no more than 5m wide and/or tall. Thus, each portcullis costs 30 Character Points. (If you want a substantially larger or smaller portcullis, or a portcullis made of different materials, change the cost appropriately.)

The mechanism for raising and lowering a portcullis has PD 4, ED 4, and 3 BODY.

A person caught and crushed under a falling portcullis takes 1d6 Normal Damage for each point of BODY the portcullis has when intact, and is pinned to the ground with a STR equal to (5 x portcullis's full BODY).

Example: *Prince Wolfgang wants a gatehouse with 20m tall towers on either side for each of his two main gates. The towers are essentially the same as the corner towers (though with a smaller circumference), so the GM lets him buy them with the corner towers using the 5-point doubling rule; that costs him another +5 Character Points. He doesn't want to make the gatehouse corridors any longer, but he installs two portculli and three murder holes in each one. That costs an additional 46 Character Points, for a total of 51 points for the gatehouses and their defenses.*

THE BARBICAN

If a castle has a barbican, you build it using the rules for walls (and possibly towers) above. An attached barbican can thus be thought of as an extension of the walls. A detached barbican could be built as a separate mini-Base, or could be thought of as the character assigning part of the area of his Base to an outwork instead of to the main castle.

Example: *Prince Wolfgang decides to build a barbican for each of his main gates, to keep the ice trolls from being able to ram the gates effectively. He envisions each barbican as two parallel 10m long, 16m tall, 2m thick walls with double battlements and a small 16m tower at the end. That means each wall costs 43 Character Points (doubled up to four such walls for +10 Character Points), and the GM again allows Wolfgang to buy the towers by paying for another 5-point doubling off of the corner towers. So both barbicans cost him 58 Character Points total.*

CHICANE

If a castle designer wants to include a chicane beyond the gatehouse, he has to devote at least 10m x 10m of bailey space to it. It costs 2 Character Points, regardless of its size. It provides a +1 OCV bonus to the attackers *if* they can stage an ambush to get a Surprised bonus on the defenders as they move through the area.

Moats And Ditches

Under the basic rules, a moat, fosse, or similar feature doesn't cost any Character Points — a castle's designer simply defines whether his castle has one, and its features.

The advanced rules distinguish between dry moats/fosses and wet moats. For a dry moat, every 1m of width costs 1 Character Point; every 1m of depth costs 1 Character Point; and every 20m (or fraction thereof) of length costs 1 Character Point.

A wet moat's defined as a Persistent, Long-Lasting, Change Environment (-24m Running) — in other words, enough reduction of Running to counter the ground movement of pretty much any person or horse. Anyone who enters the moat can't Run anymore; to get across it you have to Fly, Swim, or use some other appropriate form of movement. It's bought as an Area Of Effect (Line), with the Line of sufficient length, width, and depth to define the size of the moat.

Example: *Prince Wolfgang decides to build a wet moat 15m wide and 6m deep around his castle. The castle has a "circumference" of 200m, so the moat will be slightly larger so it can fit around it. He buys this as follows: Change Environment, -24m Running, Long-Lasting (permanent until altered), Area Of Effect (Line 200m long x 15m wide x 6m deep; +2¼), Reduced Endurance (0 END; +½), Persistent (+¼). That yields a cost of 160 Character Points for his moat. Fortunately for the comfort of the castle garrison, the moat can be constantly resupplied with water from a river that flows out of the mountains nearby.*



Bastions And Outworks

Under the basic rules, a bastion (or other outwork) has the same BODY, PD, and ED that are bought for the overall Base. In effect having a bastion is just part of how the castle's designer defines the layout of his Base.

Under the advanced rules, a solid bastion has the PD and ED of its walls (usually worked stone, so 6 PD, 10 ED) and an amount of BODY dictated by its size. If the bastion's mostly packed earth, give it 6-10 BODY per cubic meter; consult the Walls Table for guidelines if it's made of more durable material. When the bastion takes all of its BODY in damage it's rendered useless to the defenders; after it takes half its BODY, any defenders using it as a firing platform suffer a $-\frac{1}{2}d6$ OCV penalty. An artillery tower or casemated bastion can be built as a squat sort of tower using the tower rules above. In either case, if the castle's creator wants the bastion to have crenellations, they cost the same as for walls and towers.

A bulwark costs no Character Points; it's considered a feature of the grounds surrounding the castle. A glacis doesn't cost Character Points.

A ravelin or other detached outwork can be bought as a bastion or as a tower, depending on whether it's solid or casemated.

A fausse-braie that's solid can be considered a form of bastion and built accordingly. One that's casemated is built like a casemate (see page 45), but with crenellations on top (at the same cost as for walls or towers) so the roof of it becomes a viable firing platform.

A caponier can be built just like a casemate, it's just at right angles to the wall instead of running along the wall.

A covered way should be built as a wall — typically a relatively low wall compared to the castle itself, but still a wall.

A cavalier doesn't cost any Character Points.

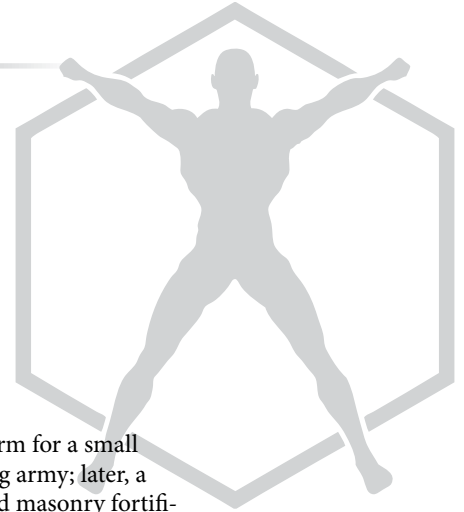
Other Features

The typical rooms found in a castle — armories and arsenals, halls, throne rooms, solars, bedchambers, garderobes, and more — generally don't cost Character Points. However, the GM might require a castle builder to pay Character Points for any of them if they have some sort of tactical use. For example, a sanitary tower can serve as a defensive fallback position and thus might require the expenditure of a few Character Points; a hall with a flat, battlemented roof for firing on invaders in the bailey might have to pay the standard cost for battlements.

Serious, dangerous obstacles to an attacker's forward progress — an abatis, lilies, and the like — should be bought as a Persistent Damage Shield (using the Area Of Effect rules to define the size of the Surface covered). The Damage Shield takes the Limitations *Successful DEX Roll Or Moving No More Than 4m As A Full Move Negates Effect* (a character who is careful enough or moves slowly enough can avoid getting hurt; $-\frac{1}{4}$), and *Automatically Targets Hit Location 18* (unless, of course, a character trips and falls, is thrown, or the like; -0). Obstacles that aren't intended to hurt, only slow attackers down, can be bought as Change Environments (similar to a wet moat; see above).

Each spiral staircase or other stairway arranged to favor the defenders and hinder the attackers costs 1 Character Point.

CASTLE GLOSSARY



Here's a handy reference for castle-related terms.

GENERAL/EUROPEAN TERMINOLOGY

Abatis: A series of tall wooden spikes driven into an earthen rampart to make the rampart harder or more dangerous for defenders to climb.

Adulterine castle: A castle whose creation wasn't authorized by the builder's king or lord.

Alcazaba: Spanish term for a castle occupying the high point of a city; from the Arabic *casbah*.

Alcázar: Spanish term for a castle, especially one that also was a residence.

Allure: The "wall-walk" at the top of a curtain wall.

Arrow slit: Another term for a loophole (*q.v.*).

Artillery tower: A bastion with a chamber inside for cannons to fire out of gunports.

Ashlar: Smooth cut and squared stone (as opposed to unworked stone or stone *en boss* [see *Bossage*]).

Assommoir: Another term for a murder hole (*q.v.*).

Bailey: The courtyard inside a castle's walls.

Barbican: A fortification placed in front of/around a gatehouse.

Barmkin, barmkyn, barmekin: A walled courtyard next to a peel (*q.v.*); the wall was relatively thin, short, and without battlements.

Bartizan: A small turret or tower built along a wall, or at the corner of a wall or tower, used for watching, attacking besiegers, and the like.

Bastei, basteja: Northern European terms for an artillery tower (*q.v.*).

Bastide: A French term for a fortified village or town.

Bastille: Initially, a French term for a small timber fort built by a besieging army; later, a French term for a two-towered masonry fortification used to block a gate or passage (in other words, a structure similar to a barbican [*q.v.*]).

Bastillon: A French term for an artillery tower (*q.v.*).

Bastion: A part of a fortification projecting beyond the curtain wall (to give a better angle of fire) and intended primarily for the placement of the defenders' cannons or siege engines. Most bastions were arrowhead- or spade-shaped. In a more general sense, any fortification. See also *lunette*.

Batter: Another term for the plinth (*q.v.*).

Battered wall: A wall inclined slightly inward for greater stability.

Battlement: The top of the walls of a castle, usually protected by crenellations, with an allure or rampart behind the crenellations for defending soldiers to stand on and attack besiegers. See also *parapet*.

Bergfried: A German term for a type of tall, narrow tower similar in most respects to a donjon (*q.v.*). Also called a *berchfrit* in Austria.

Blocage: Earth and stone fill between a main wall and a revetment.

Block castle: A type of castle with no external walls, just a core of heavy towers connected by thick, heavy walls with the top of the tower and the top of the walls being at the same height (to facilitate the defenders' ability to move, communicate, and use siege weapons). The infamous Bastille in Paris is an example of a block castle.

Bossage, bossed masonry: A term for the outer surface of a wall where the outer facing of the stone blocks has been left rough, or has been carved with bump-like protrusions.

Boulevard: A French term for a low earthwork in front of a wall or gate used to place cannons, or a flat area behind a rampart used to place artillery.

Bretèche: A type of box-like machicolation (*q.v.*) over a doorway or window. Also called a brattice, bretasche, or moucharabieh.

Broch: A Celtic fortification consisting of a large, thick-walled stone house and possibly a stone tower.

Bulwark: A defensework around a castle outside the walls, usually made from earth, and often intended to hold cannon. Some commentators use this term for an artillery tower.

Burg: German term for a castle.

Burh: A type of wooden and earthen fortification used by the Anglo-Saxons and Vikings to protect a town, or the fortified town itself.

Buttress: A projecting feature that supports a wall.

Cap-house: A square chamber projecting from the top of a tower, supported by corbels.

Caponier: A small, enclosed, single-story outwork projecting from the castle wall at a right angle, often across a moat/fosse, built to allow the defenders to fire along the wall face at ground level.

Casbah: Arabic term from North Africa meaning a fortified place maintained by a lord or chieftain.

Casemate: A fortified ground-level runway outside the curtain wall between two mural towers, or a chamber built inside a rampart, in either case featuring loopholes so the defenders could attack their besiegers; most common in castles built after cannons came into common use. To describe a feature as “casemated” means that it’s hollow inside (or has rooms built into it) for defenders to use.

Castelnaux: a French term for a newly-created fortified village near an existing castle.

Castello: Italian term for a castle.

Castrum arenarum: A Roman amphitheater converted into a fortress in the early Middle Ages.

Chamber tower: A donjon or tower designed primarily for residential purposes.

Château-fort: French term for a castle.

Châtelet: Another term for a bastille (*q.v.*).

Chemin de ronde: French term for an allure; also used to refer to a two-tiered vaulted passageway running inside thick walls.

Chemise: “Shirt,” a French term used for the wall surrounding a donjon/keep.

Cheval-de-frise: A wooden, spike-covered obstacle intended to block the advance of an enemy force; or a line of spikes, nails, broken glass, or similar sharp objects along the top of a wall to deter climbers.

Chicane: An obstacle-filled area behind a gatehouse where defenders could ambush or delay attackers.

Citadel: A fortification within a fortified city, usually occupying a hill overlooking the rest of the city and serving as a final point of defense if the city’s attacked.

Clamping: The use of vertical or horizontal layers of stone blocks to strengthen a brick wall.

Concentric: A term used to describe a castle with two or more mutually-supportive walls.

Contour fort: A hill-fort built to follow, or take advantage of, the shape of the hill.

Contreforts: French term for a buttress (*q.v.*).

Corrugations: Small, outward-curving sections of a wall intended to take the place of towers.

Counter-castle, counter-fort: A temporary fortification built by a besieging army for protection or to cut off the besieged force’s escape route.

Counterscarp: The outer edge of a moat, fosse, ditch, or trench.

Covered way: A broad, battlemented area just outside the counterscarp of the fosse as part of the bastion system; the crest of its parapet is aligned to the slope of the glacis.

Crannog: A Celtic fortification with a round wood or stone building on an island in a lake, connected to the mainland by a single, easily-defended causeway.

Crenel: The opening between merlons in a battlement.

Crenellation: A term sometimes used generally for a battlement, but more specifically meaning a series of crenels and merlons.

Crosslet: A cross-shaped loophole, allowing both bow and crossbow fire.

Cul-de-lampe: A square corner where two walls meet, often with a bartizan atop them.

Cunette: A drainage channel in a dry moat.

Curtain wall: A wall between two towers.

Dansk: A Central European term for a sanitary tower.

Demi-lune: Another name for a ravelin (*q.v.*).

Donjon: A French term for the best-protected part of a castle, typically a large tower (square in early castles, often round in later ones) surrounded by a chemise. The donjon was sometimes the residence for the castle’s lord. The English term for donjon is *keep*, though that term didn’t develop until after medieval times. Other terms for donjon include great tower, dungeon, odel, dunio, domus, domicilium, and castellum.

Douve: Another name for a wet moat.

Drawbridge: A bridge over a moat or fosse that could be raised to deny passage to attackers.

Drum tower: A round tower.

Dun: A rath (*q.v.*) built on a hilltop.

Échauguette: Another term for a bartizan (*q.v.*)

Embrasure: Sometimes used to mean the crenels; sometimes used to refer to the open space behind a loophole in which an archer stands, or any other opening in a castle's walls.

En bec: A tower with one side shaped so that it's "pointed" or "beaked" toward the enemy, to better deflect missile fire.

En boss: Another term for bossage (*q.v.*).

Enceinte: The main wall surrounding a castle, consisting of curtain walls and towers.

Enmotted: A term for a wall supported and strengthened by masses of earth.

Fausse-braie: A low wall and rampart, usually built in front of a fosse to protect it and the lower walls of the castle. Most common in castles built after the advent of cannon. Also spelled *fauss-bray*.

Flanking: A principle of castle design which says that any part of a castle an attacker can reach should be exposed to the defenders' counter-attack from at least one other part of the castle.

Flanking tower: A mural tower that projects mostly or entirely outside the wall, thus improving the angle of flanking fire.

Fortalice: A fortified building lacking defensive walls; a tower-house.

Fosse: A protective ditch around a fortification, largely the same as a dry moat.

Gainé: A type of casemate (*q.v.*) built directly into a thick wall.

Ganerbenburgen: A German "divisible castle," one that could be divided into sections, one for each branch of the owner's family.

Garderobe: A latrine or bathroom.

Gatehouse: A defensive structure built around, and intended to protect, a gate or opening in the enceinte or curtain walls.

Glacis: The bare, flat land around a castle, designed to expose besiegers to fire from the castle. Sometimes the glacis was sloped upward slightly as it approached the moat/ditch, to give the defenders a better angle of fire.

Gorge: The sides of a tower.

Gran buque: A type of Spanish castle built along a long, narrow hilltop so that it has the shape of a "great ship."

Gród: A Slavic term for various types of fortified positions. The term is particularly used for an early type of fortification consisting of a moat, an earthen rampart topped by a palisade, and a fortified gate.

Hall keep: A donjon wider/broad than it is tall, usually with interior cross-walls for support.

Herse: The French term for a portcullis (*q.v.*).

Hill fort: An Iron Age fortification built on a hill or other easily-defensible position (contrast *plateau fort*).

Hoarding: A wooden structure extending out over the walls of a castle so the defenders could drop objects on, or shoot arrows at, besiegers at the wall face through holes in the floor; replaced in later castles by machicolations (*q.v.*).

Hornwork: Another term for the general meaning of an outwork (*q.v.*).

Hrad: A Czech term for various types of fortified positions.

Huchet: Shutters built into the crenels to offer the defenders further protection.

Keep: The English term for the donjon (*q.v.*). In a broader sense the term "keep" is also used interchangeably with "castle."

List, list wall: A smaller defensive wall outside the enceinte. Also called a *lice*.

Loophole, loop: A narrow slit in the wall used to let in daylight and air during peacetime, and for archers to shoot at attackers during a siege. See also *oillet*.

Lunette: Another term for a ravelin (*q.v.*).

Machicolation: A stone structure extending out over the walls of a castle so the defenders could drop objects on, or shoot arrows at, besiegers at the wall face through holes in the floor.

Machicoulis: A French term for machicolations extending over a wall, as opposed to a *bretèche*.

Machicoulis sur arche: A machicoulis inside an arch outside a wall or over an entrance, similar to a murder hole (*q.v.*).

Mantle, mantlet wall: A chemise (*q.v.*).

Mantlet: A large, wooden shield used by besiegers for protection.

Merlon: The upward-projecting section of a battlement between the crenels.

Meurtrière: A French term for murder hole (*q.v.*); also used by some commentators to refer to machicolations.

Moineau: Another term for a caponier (*q.v.*).

Moucharabieh: Another term for a *bretèche* (*q.v.*).

Mural: A general term meaning "attached to the walls of a castle." A mural tower is a tower attached to the walls (*i.e.*, between which a curtain wall runs); a mural staircase is connected to the walls (rather than an interior column); a mural chamber is one along the outer walls; and so on.



Murder hole: A hole in the ceiling above a gateway, hallway, or passageway through which the defenders could attack invaders by dropping or pouring things on them, stabbing them with long spears, and the like.

Moat: A ditch, either dry or filled with water, around a castle, intended as an obstacle for attackers.

Motte: An artificial hill created as the site for the donjon in a motte-and-bailey castle.

Motte-and-bailey: A type of early castle typically consisting of a wooden palisade, a bailey (an open “courtyard”), an artificial hill, and a donjon on top of the hill (often surrounded by another palisade).

Oillet: A small, round opening at the top or bottom of a loophole, or elsewhere in the wall, used for observation (or, in later times, for cannonfire).

Organ: A form of portcullis (*q.v.*) with only vertical beams.

Orillon: A projection that protects the flank of a bastion.

Oubliette: A chamber or hole for keeping prisoners, with just one entrance through a hole in the ceiling, generally intended for prisoners who are intended to be forgotten about and die; almost non-existent in actual castles, but a common feature in Fantasy castles.

Outwork: Another term for a barbican (*q.v.*), or, more generally, for any defensive work outside the curtain walls.

Palisade: A wooden wall constructed by placing logs in the ground next to one another and fastening them together; the tops of the logs were often sharpened. Also called a stockade.

Parallel: A trench dug by besiegers that runs parallel to a castle’s walls.

Parapet: Another term used for the battlement — the top of a castle wall with crenellations and an allure or rampart.

Parateichion: The area between the two walls in a concentric castle or similar defensive arrangement of multiple walls.

Peel, pele: A tower-house in the Scottish border regions.

Peribolos: The area between a scarp wall and a main defensive wall.

Plateau fort: An Iron Age fortification built on flat ground, with only its man-made defenses to protect it.

Plinth: A slope in front of the lower part of a wall, or a sloped section built into/onto the lower wall itself, that adds thickness (and thus strength) to the wall and makes it harder to attack directly.

Plunging loophole: A loophole with a cover over it so that objects thrown out it would fall straight down.

Portcullis: An iron-shod wooden and/or metal grid-like gate raised and lowered vertically.

Postern: A small door or gate often used for sallies (*see sally port*).

Projecting tower: A flanking tower (*q.v.*).

Putlog holes: Holes in the upper wall face intended to hold beams to support hoardings.

Rampart: Either (a) an earthen bank topped with a palisade or wall, or (b) an allure widened or strengthened in later fortifications to support the use of cannon by the defenders.



Rath: A Celtic fortification consisting of a round wooden house surrounded by walls of stone and wood, with ditches surrounding the walls.

Ravelin: A part of the bastion system — an outwork, typically crescent-, D-, or triangular-shaped, detached from the castle walls; it could be on the bulwark proper, or might be out beyond the moat/fosse.

Revet, revetment: A retaining wall or its facing, usually used either of a thin wall built to protect a ditch or scarp from erosion, or behind a heavier wall to hold blocage.

Ribat: An Arabic term for a fortification on coast or frontier.

Rondelle, roundel: Other terms for an artillery tower (*q.v.*).

Sally port: A small door or gate, sometimes concealed, through which the defenders could sally (come forth to attack the besiegers) or escape.

Sanitary tower: A tower apart from the castle, and usually connected to it by an elevated walkway, containing garderobes.

Scarp: The inner edge of a moat, fosse, ditch, or trench.

Schildmauer: A high, thick wall protecting a bergfried.

Screen wall: Commentator Sidney Toy uses this term for a structure at Caerphilly Castle, in effect an enormous barbican largely parallel to the castle wall behind it, that also serves as a dam to create a lake around the castle.

Shell keep: A type of keep in which the donjon (tower) isn't attached to the chemise (surrounding wall), or in which there's just a chemise with no donjon.

Shield Wall: A wall significantly taller than the curtain walls, used as a defensive position.

Slighted: Used to describe a castle that's been rendered incapable of protecting its inhabitants.

Solar: A private room in a castle, usually positioned and constructed to be well-lit by sunlight.

Spur: An angular projection from the face of a wall.

Stockade: Another term for a palisade (*q.v.*).

Talus: Another term for the plinth (*q.v.*).

Tenaille: A fortified position outside the curtain wall and between bastions, from which the defenders could better protect the enceinte. Usually found in post-medieval fortifications intended to resist cannonfire.

Tête-du-pont: A barbican on a fortified bridge.

Torre albarrana: A Spanish term for a tower outside the walls.

Torre del homenaje: “Homage tower,” the Spanish term for a donjon.

Torrienne: Italian term for an artillery tower (*q.v.*).

Tower house: A donjon or tower designed primarily for residential purposes.

Tower keep: A donjon taller than it is wide/broad, usually lacking interior cross-walls (see *hall keep*).

Trunnion: The central axle (pivot point) of a turning bridge.

Turning bridge: A drawbridge (*q.v.*) built with a central pivot-point and counterweights so defenders could raise it quickly.

Voldsteder: A Dutch motte-and-bailey style castle.

Wall-head: Another term used for the battlement (*q.v.*).

Wall-walk: An allure (*q.v.*).

Ward: Another term for the bailey or courtyard.

Wasserburg: A “water castle,” a German term for a castle built on an island or pilings in the middle of a lake.

Water-gate: A sort of gatehouse over a navigable river, designed to control passage over the river.

Wicket door, wicket gate: A person-sized door in the main gate, to let people in and out without having to open the main gate.

Yard-castle: A castle built according to a regular, rectangular plan.

Yett: An iron latticework door found in some smaller Scottish castles.

Zamek: Polish term for a castle.

Zamok: Russian term for a castle.

ASIAN TERMINOLOGY

Hirajiro: A Japanese term for a castle on a plain.

Hirayamashiro: A Japanese term for a castle on a plain and hill.

Honjo: A Japanese term for a main castle, the center of a network of *shijo* (*q.v.*).

Kango shuraku: A settlement protected by ditches (dry moats filled with objects that made them impassable).

Mizuki: A Japanese term for a “water castle,” a long moated earthwork.

Oyumi: A giant crossbow, basically a Japanese arbalest.

Saku: A Japanese term for a palisaded fort.

Sanseong: A type of Korean fortress.

Seicho: A Japanese term for a government office inside a fortification.



Seiden: A Japanese term for a building (building in the middle of the seicho).

Seiro yagura: A Japanese term for a lookout tower.

Shijo: A Japanese term for a “satellite” castle near a *honjo* (q.v.)

Shinden: The chief residence in a Japanese fort.

Shogi: A Japanese term for a moat-like feature divided into checkerboard pattern.

Tenshu: A tall tower, similar in many respects to a donjon.

Unejo tatebori: A Japanese term for parallel trenches running up the side of the mountain to a *yamashiro*, for rolling stones down and concentrating enemy troops into an area for easy firing upon.

Yakata: A Japanese term for a samurai’s mansion, eventually merged with stockades to gain defensive features.

Yamashiro: A Japanese term for a “mountain castle,” a castle built on a mountaintop.

Yashiki: A Japanese term for a daimyo’s mansion.

INDIAN TERMINOLOGY

Airina-durga: A fortress located on saline ground.

Antardvipa-durga: A type of jala-durga on an island; an island fortress.

Attalaka: A tower, typically D-shaped.

Dhanu-durga: A desert fortress.

Durga: A fortress (see the list for various types).

Giri-durga: A hill fortress.

Jala-durga: Any type of fortress surrounded by water.

Mahi-durga: An “earth fortress” — one protected by an earthen rampart, earth and stone, or brick, or which is surrounded by swamps and quicksand.

Nri-durga: A fortress garrisoned by a large, loyal army.

Parvata-durga: Another term for a giri-durga.

Sthala-durga: A type of jala-durga consisting of an ordinary fortress surrounded by a wet moat.

Vana-durga: A fortress located in a forest.

ROMAN TERMINOLOGY

Burgus: A watch tower.

Castellum: A camp.

Castrum: A fort.

Centuriae: The barracks buildings in a fortified camp.

Lilia: A pit about 90cm deep with a sharpened stake in the bottom. Usually lilia were dug in rows and then covered with a layer of leaves or earth to create a primitive “minefield.”

Limes: A system or series of fortifications marking an outermost border of the Roman Empire.

Oppidum: A fortified town or settlement, typically built on a hilltop.

Pomerium: Another term for a via sagularis (q.v.).

Porta decumana: The rear gate of a fortified camp.

Porta praetoria: The front gate of a fortified camp.

Porta principales: The side gates of a fortified camp.

Praetorium: The commander’s tent in a fortified camp.

Principia: The headquarters building in a fortified camp.

Stimulus: A sharpened stake about 30cm long with a metal point, driven into the ground in rows to create a primitive “minefield.”

Valetudinarium: The hospital in a fortified camp.

Vallum: An earthen wall.

Via sagularis: The “cloak street” running along the interior walls of a fortified camp, allowing legionnaires rapid access to any part of the walls.

MISCELLANEOUS TERMINOLOGY

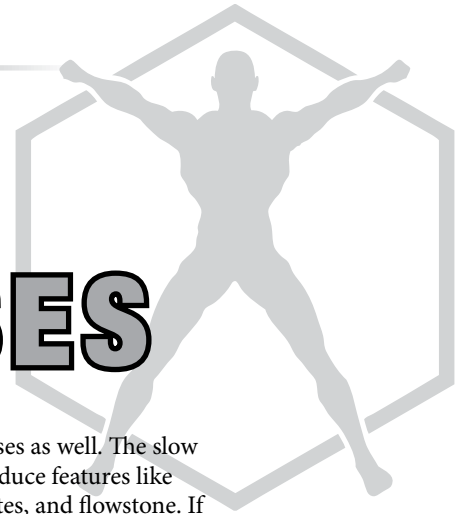
Baliq: A Turkish fortified town.

Cancha: An early, simple form of Inca fortification.

Pas: A Maori fortification consisting of a trench and palisade.

Pukara: An Incan fortification.

OTHER FANTASY BASES



While castles are by far the most common type of Fantasy Base, they're not the *only* type. Fantasy generally involves magic, and the existence of magic can lead to all sorts of unusual dwelling places, fortifications, and other structures. Some possibilities include:

CAVES

Some of mankind's earliest residences were caves, and even into historical periods where construction technology was well-known it wasn't uncommon for people to live in caves, use them for storerooms, or flee to them in times of peril. In Fantasy settings cave and cavern complexes are often the dwellings of monsters, the secret lair of an evil adversary, or otherwise the source/location of some sort of peril.

Caves come in many types, including:

Corrosional Cave, Erosional Cave: A cave formed by the erosive action of flowing underground water and the debris it carries. Solutional caves (see below) may evolve into corrosional caves. *Aeolian caves*, which are carved by wind, are a subtype of corrosional cave.

Fracture Cave: A cave formed by the erosion of a soluble mineral (such as limestone or gypsum) from between two layers of less soluble rock.

Glacier Cave: A cave formed in or under ice. (A regular cave that's cold enough to contain ice formations all year is an *ice cave*.)

Primary Cave: A cave formed at the same time as the surrounding rock. This includes lava tubes and caves, in which the surface of a lava flow cools and solidifies while the hotter lava beneath continues moving and flows away, leaving a void.

Sea Cave, Littoral Cave: These types of caves are formed in coastal cliffs and rock formations by wave and tidal action. They're almost always flooded, and may even be navigable by small boat for some distance. A coastal cave that contains a mix of fresh and salt water is called an *anchihaline cave*.

Solutional Cave: Caves formed when soluble rock (such as limestone, dolomite, or gypsum) is dissolved by the acids in groundwater; in many cases the resulting cracks and crevices are

enlarged by geological processes as well. The slow working of the water may produce features like stalactites, stalagmites, helictites, and flowstone. If the dissolved rock was below the water table, that portion of the cave will fill with water. The solutional cave is the most common type of cave.

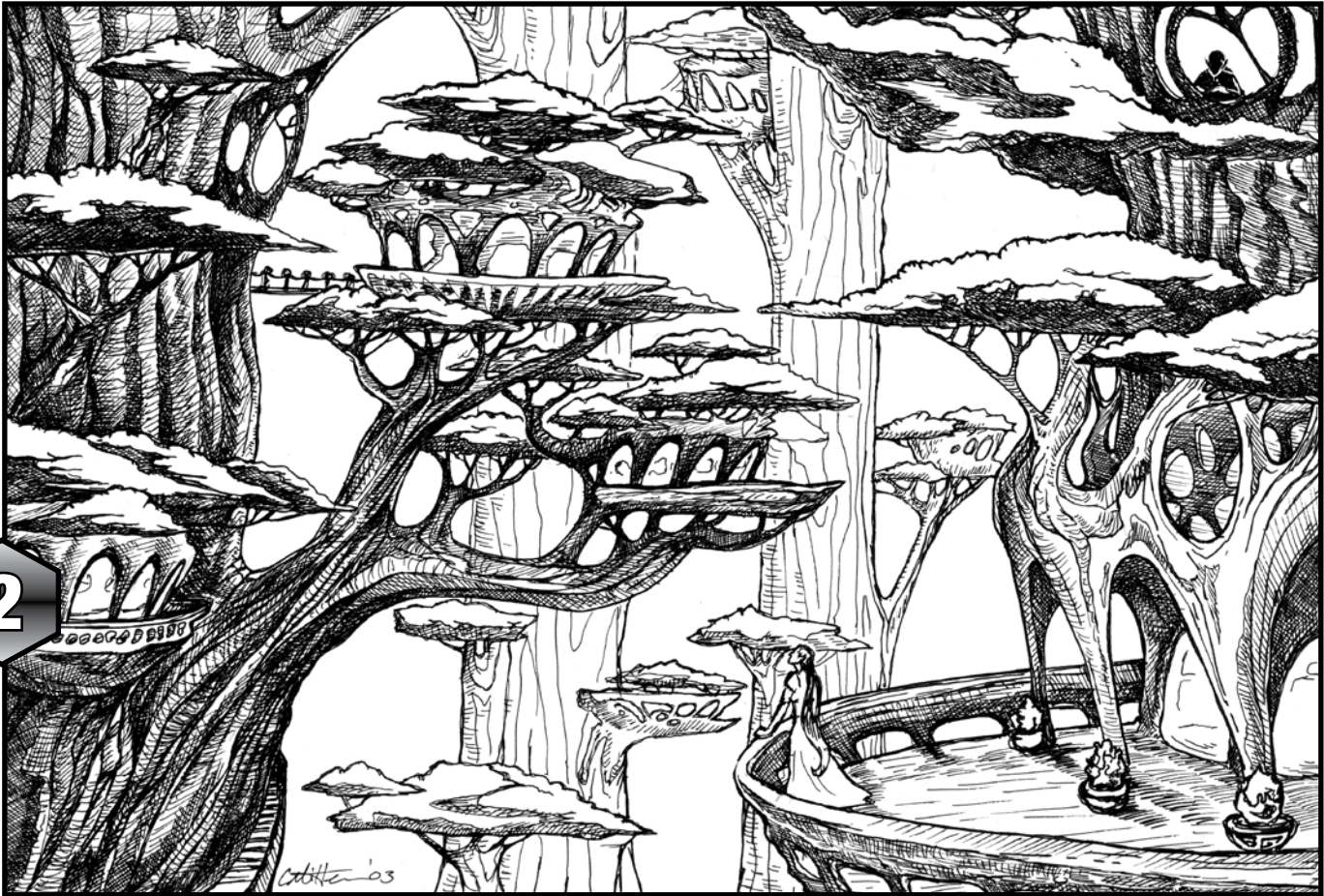
On Earth as of 2009, the records for caves are: longest total length, 591 km; depth from highest entrance to lowest point, 2,191 meters; deepest vertical shaft, 603 meters; largest room, 700m x 400m, with a ceiling 80m high; longest passage, 4.6 km long. But of course, those records are nothing compared to cave complexes in some Fantasy settings! In High Fantasy worlds it's not uncommon for there to be multiple underground-dwelling civilizations with vast underground realms — basically, a world-within-the-world that PCs can explore in search of adventure and treasure.

DUNGEONS

The man-made counterpart to the cave in Fantasy campaigns is the *dungeon* — a worked (or partly worked) series of underground chambers and corridors. Some dungeons start out as caves and are carved into man-made structures (though they may still retain some natural areas); others are wholly artificial creations.

Dungeons have little or no real-world analogues, and from a practical or common sense standpoint often seem illogical, but they're a staple of Fantasy gaming because they're Just Plain Fun. Creeping carefully through an underground labyrinth, wary for traps and monsters, in search of gold and magic, is *the* stereotypical gaming scene. Additionally, dungeons are relatively easy for a GM to create and control.

As Bases, dungeons are typically created by minions of Evil: sorcerers, cultists, orc chieftains, demons, fallen gods, underground races, and the like. A dungeon offers its creator several useful features. First, it's concealed. An evil mastermind can conduct his forbidden research and advance his fiendish schemes in a dungeon without anyone being the wiser... until information somehow slips out and a group of brave, heroic adventurers come to destroy him. Second, it's secure. Access to and movement within a dungeon is limited, making it possible for the inhabitants to protect themselves with traps and relatively small numbers of troops.



On the other hand, if not carefully designed a dungeon may be even worse than a castle for restricting the inhabitants' ability to flee when their home is invaded.

TREE DWELLINGS

Inspired, perhaps, by Tolkien's descriptions of Lothlorien or watching *The Swiss Family Robinson* one too many times, the creators of Fantasy worlds often have individuals or societies living in and amongst trees. Elves are the most common residents of tree Bases, and may even be able to use their magic to "carve" rooms and tunnels *into* particularly large trees without causing those trees any harm.

A tree Base typically offers a lot of security — unless attackers can fly, actually reaching the Base is extremely difficult, and anyone who does make it into the Base may find his ability to move around as restricted as in any dungeon. However, tree Bases tend to be vulnerable to fire and other attacks that affect the foundational tree.

Trees aren't necessarily the only "platform" for Fantasy races to build Bases in. If the world's swamps feature gargantuan mushrooms, they could support a Base both in the stalk and on top of the cap. Gigantic thorn-bushes would offer both protection and a framework for platforms and houses to a race small enough to move among them without getting skewered (such as some types of goblins). An enormous cactus could become a viable Base if parts of it were hollowed out.

UNDERWATER BASES

For the ultimate in exotic locations, Fantasy characters and creatures can build a Base under the sea. Magic makes it possible not only to construct the Base, but for anyone living there to breathe normally. An underwater Base usually enjoys total protection from land-based armies and other such attackers, but is exposed to dangers of its own: water-based civilizations (such as the sharthak, or shark-men) might mount raids or attacks on the "intruders"; gigantic sea creatures (krakens, leviathans, and more) may see the Base as a source of food or be driven into a frenzy by its magical "radiation"; strong currents and undersea earthquakes may imperil the Base's very existence.

EXAMPLE FANTASY BASES



Here are a few example Bases for use in your Fantasy campaigns. Some use the advanced castle creation rules from earlier in this chapter, some the standard Base rules; you can easily adapt the writeups to whichever version of the rules you prefer.

DUN CORATH

Description: Dun Corath is a sort of advanced hill-fort inspired by similar fortifications from Iron Age Britain (though it's certainly far beyond them in some ways). In a Fantasy campaign it could be a frontier outpost for a major empire, the homestead of a barbarian tribe, or the home of a tribe of vicious orcs. (It has a location of "Distant," meaning it's not near any major settlement but isn't necessarily too far from a road or the like.)

Dun Corath occupies a headland approximately 100m tall formed by the junction of two large rivers. The natural sides of the headland are steep and difficult to climb (-2 to Climbing rolls in the top 30m). The rivers ensure the fort has a supply of water even during sieges — not only have the builders sunk two wells within the walls, but if necessary they can go to the tip of the headland and lower buckets into the rivers with ropes.

The fort is approximately 400m wide and 600m long at its largest points. There's enough space behind the wall for pens to hold horses and pigs, some gardens, and a practice area for the fort's inhabitants to train with weapons. The fort is a small community, with its own blacksmith, baker, and a few other craftsmen. They and the soldiers stationed there live in small wooden shacks and huts (some rectangular, some round) that line the main path through the bailey.

The main wall defining Dun Corath is an earthen rampart held in place by wooden log walls. It's 15m thick, 6m tall, and topped at its outer edge with a wooden palisade a little under 2m tall (tall enough for defenders to hide behind easily; short enough that they can fire arrows over it without strain — think of this as equivalent to battlements). The wall has periodic corrugations that allow the defenders to shoot arrows at attackers along the wall face. The earth for the wall was dug from a series of 3m deep trenches that run parallel to the wall (and sometimes define certain spaces behind the wall).

DUN CORATH

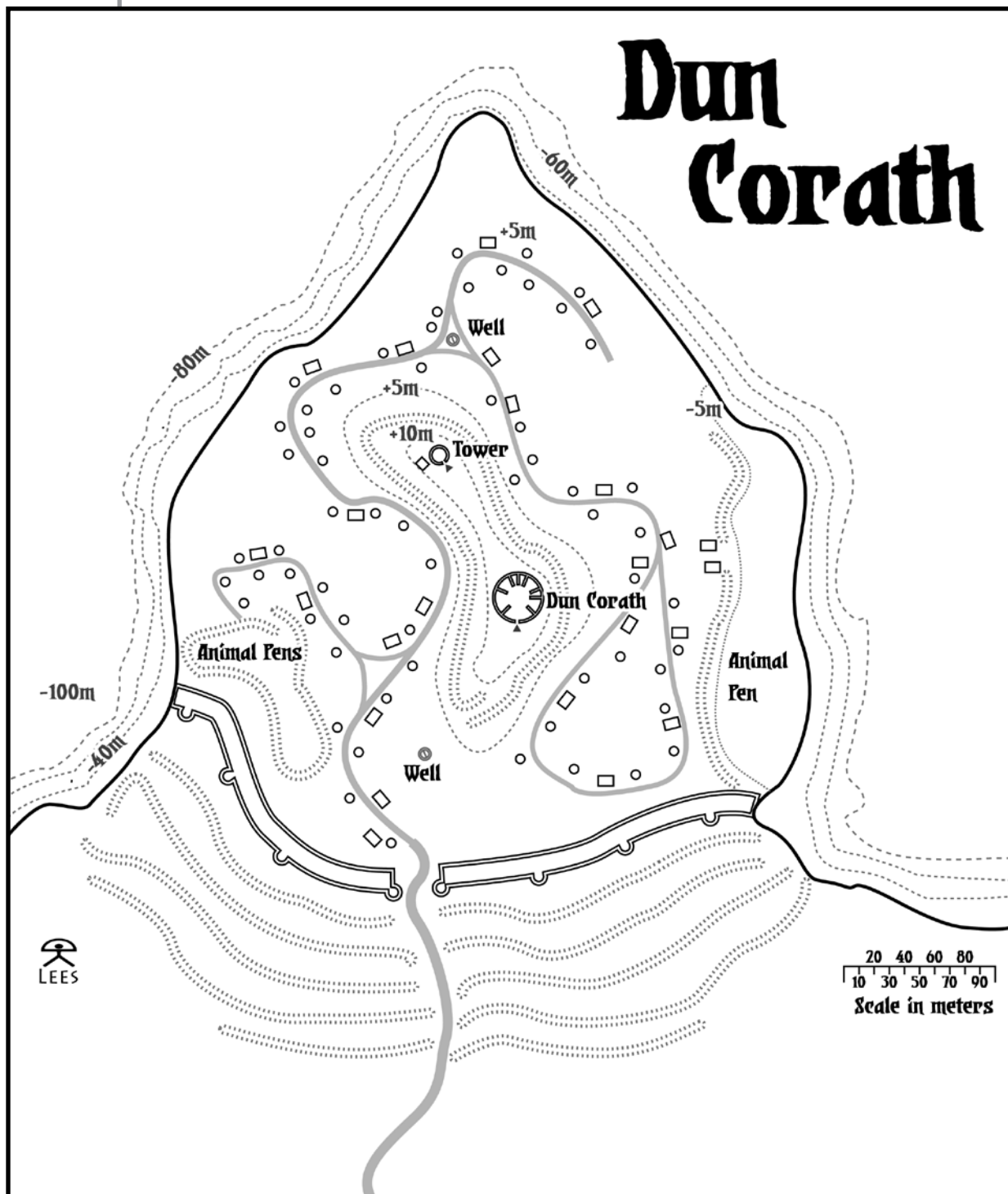
Val	Char	Cost	Notes	END
19	Size	38	1 km x 500 m x 500 m; OCV+ 16	
N/A	PD	0		
N/A	ED	0		
N/A	BODY	0	Total Characteristics Cost: 38	
Cost Powers				END
10	Location:	Distant		
Tactical Systems				
40	The Main Wall:	10 BODY, 5 PD, 5 ED	An earthen rampart 15m thick and 6m tall with log-holding walls, 400m long	0
20	Palisade:	400m of "battlements" in the form of a log palisade (see text)		0
39	The Dun Itself:	7 BODY, 5 PD, 10 ED	A round building with rough stone walls ½m thick, 94m "long," and 6m tall	0
41	The Tower Itself:	9 BODY, 6 PD, 10 ED	A round tower with worked stone walls ½m thick, 50m "long," and 12m tall	0
1	Tower's Spiral Staircase			
Personnel Systems				
1	Two Wells And River Access:	Life Support (Diminished Eating: no need to eat or drink)	Only Applies To Drinking (-1)	0
Total Abilities & Equipment Cost: 152				
Total Base Cost: 190				
Value Complications				
0	None			
Total Complications Points: 0				
Total Cost: 190/5 = 38				



There's a single broad entrance through the wall protected by a sliding gate. At the front of the entrance are two wooden gatetowers 8m tall. There's at least one person manning each tower at all times, and usually half a dozen guards on each half of the wall. At night the wall and gate are lit with torches.

Inside the wall the ground is mostly flat except where it rises sharply to create a sort of hillock, which supports two buildings. The first is the original "tower," a two-story building made of rough stone. Today it serves primarily as a residence for the lord of the fort and his family, but if attackers made it inside the wall it would become a defensive position. The other building,

added sometime later, is a four-story tower made of worked stone and topped with a peaked roof. Although it usually serves as a watchtower, the tower is the most defensible part of the entire fort. The main entrance is 3m off the ground and can be reached by a wooden staircase that's easily destroyed if necessary. The floor inside is likewise 3m below the door and reached by the same sort of staircase. Once inside, a stone mural staircase winds clockwise up the inside of the tower to give access to the other floors (which mostly serve as an armory, storerooms, and the like). The tower is continuously manned and a watch kept down the peninsula for approaching visitors (or attackers).



BLACKMARSH CASTLE

Description: Blackmarsh is a typical medieval European castle of the thirteenth or fourteenth centuries, suitable for us in a variety of Fantasy settings and situations. It's a concentric castle, with an enceinte that's surrounded by a shorter list wall to create both an outer bailey and an inner bailey; the whole is surrounded by a moat. The area bounded by the 6m tall, 4m thick list wall is approximately 280 by 200 meters; the area bounded by the enceinte approximately 100 by 100 meters.

The only approach to Blackmarsh that has a bridge over the moat is from the south. As the road reaches the castle it goes up an earthen ramp leading to a triangular-shaped detached barbican. The barbican has battlemented walls five meters high and three meters thick, but the defenders' ability to hold the outer barbican for long is compromised by the presence of the open ramp. If an attack is expected, the castle's masons hastily wall over the ramp, but that wall tends to be weaker than the standing walls and is usually the main focus of an attacker's efforts. The outer barbican also has two towers flanking the entrance to the bridge; these are usually where the defenders make a last stand before losing the outer barbican. There's no gate to the bridge, but given sufficient warning the defenders usually pile obstacles (such as broken carts) there (they also do this at the two guard towers on the other end of the bridge).

Blackmarsh's moat is 10-12m wide on average, and 10m deep. The broad bridge crossing it is made of stone and terminates in a drawbridge that's controlled from the list wall's gatehouse. It's a split bridge; the broader western half is kept up unless cart or horse traffic is expected.

The list wall itself is 6 meters high and four meters thick, with 8 meter tall towers at regular intervals along its length. (The towers have open gorges facing the enceinte.) It defines the outer bailey, which is largely left open so the castle's soldiers can use it as a training-ground. However, there are some small buildings and a patch of garden or two.

The enceinte walls are 7 meters thick and 10 meters tall, with a battlement along their entire length. There are only two points of access to the inner bailey, impressive gates on the north and south walls. Each is protected by a sturdy guard-house and a barbican (the latter set at right angles to the gate to prevent charges). Two portculli (one in front of each gate, one behind) stop or slow down attackers, and the walls and ceiling of the passageways are lined with loopholes and murder holes so the defenders can pepper the attackers with arrows. Placed next to each gatehouse are armories that include spiral staircases that lead up to the curtain wall allure.

Besides the gatehouse towers, the main castle has six towers: four corner towers each 12m tall, the 15m tall "High Tower" in the center of the western wall, and the 12m tall "Chapel Tower" across from it in the eastern wall (so-called because its lower floors are part of the castle's chapel). Inside the walls are a number of structures: kitchens; a stable; and a great hall with residences above it for the lord, his family, and his guests.

Fantasy Blackmarsh

As presented, Blackmarsh Castle is a relatively mundane place suitable for a wide variety of Fantasy campaigns and settings. But in games that feature a large amount of magic, or where the castle's lord is a powerful wizard, you might want to make some changes so that it fits better. Some possibilities include:

- the Chapel Tower becomes several meters taller and is changed to the Astrology Tower, where the wizard watches the stars and planets at night and calculates horoscopes to predict the future
- instead of residences above the great hall, there's a chamber for the wizard, another for his extensive arcane library, and workrooms where he performs his strange mystical experiments
- water-demons, water elementals, or other such creatures conjured, captured, or created by the wizard inhabit the moat. Other monstrous beings may live in the ground outside the moat or patrol the air around the castle, when necessary.
- if the wizard is an evil sorcerer or necromancer, hideous carved gargoyles may line parts of the walls... and come to life at the wizard's spoken command! Similarly, a necromancer could lay a spell on the castle grounds that whoever dies there in battle returns to "life" as a zombie and joins the castle's defenders.
- spells of warding and protecting may make it harder to damage the walls and gates (or automatically "heal" them), to climb the walls, and the like.

See also *Mystic Equipment*, page 186, for ideas about Fantasy features you could add to this or any other Base.



BLACKMARSH CASTLE

Val Char Cost Notes

17	Size	34	400 x 200 x 200 meters; OCV+ 15
N/A	PD	0	
N/A	ED	0	
N/A	BODY	0	Total Characteristics Cost: 34

Cost Powers

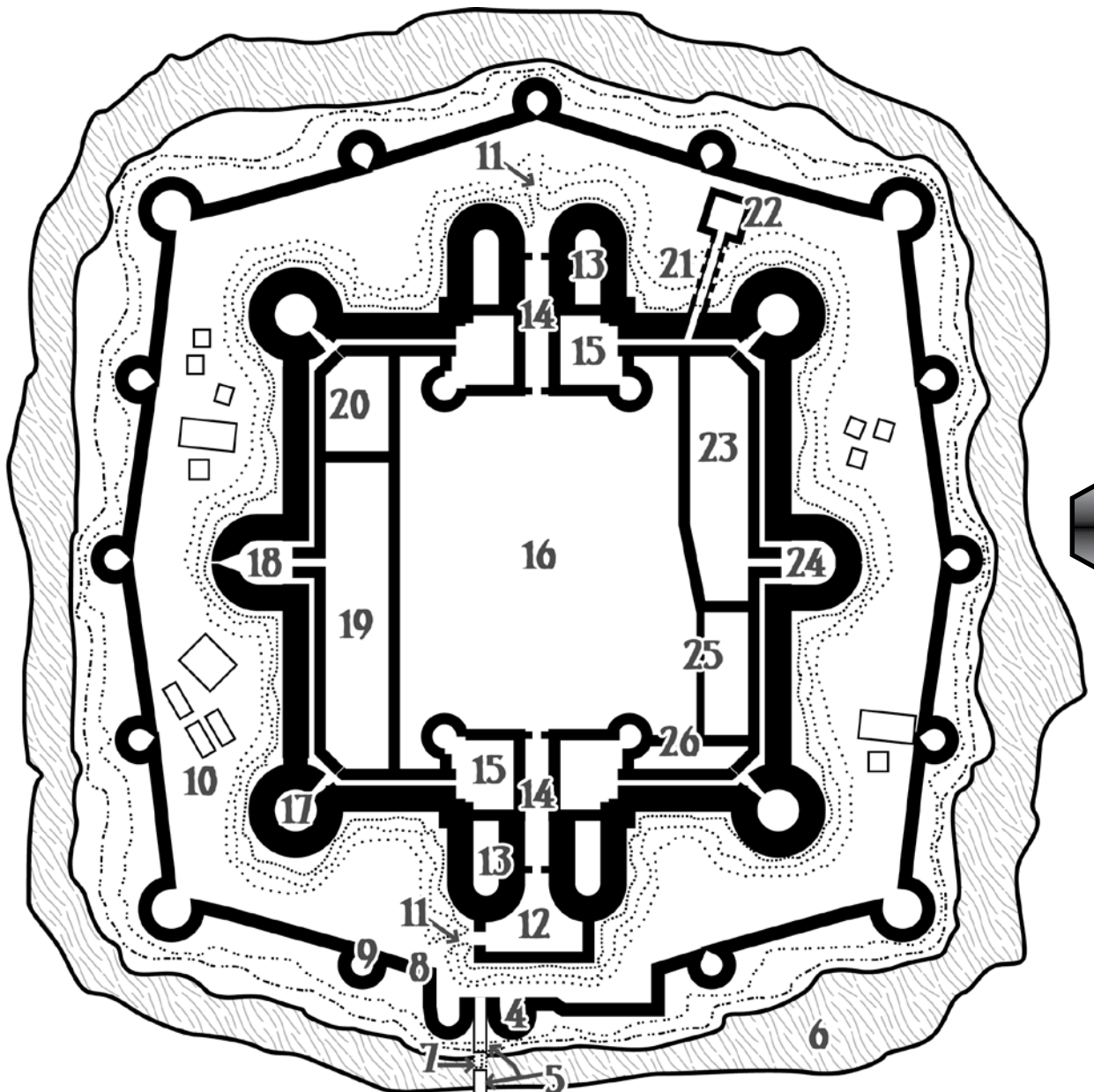
0 **Location:** City

Tactical Systems

74	The List Wall: 10 BODY, 6 PD, 10 ED	0
	A worked stone wall 4m thick, 6m tall, and 500m long, with battlements	
47	List Wall Towers: 10 BODY, 6 PD, 10 ED	0
	A worked stone tower up to 8m tall with 4m thick walls 40m "long," with the gorge facing the enceinte left open, and battlements along the flat roof	
25	List Wall Towers: 16 more List Wall Towers, plus two matching Outer Barbican towers (total of 19)	
69	Enceinte Walls: 10 BODY, 6 PD, 10 ED	0
	Worked stone curtain walls 7m thick, 10m tall, and 350m long, with battlements and machicolations	
52	Corner Towers And Chapel Tower: 10 BODY, 6 PD, 10 ED	0
	Round towers with worked stone walls 7m thick, 12m tall, and 40m "long," with battlements and machicolations	
15	Corner Towers And Chapel Tower: four more towers (total of 5)	0
53	The High Tower: 10 BODY, 6 PD, 10 ED	0
	A round tower with worked stone walls 7m thick, 15m tall, and 40m "long," with battlements and machicolations	
50	Arrow Slits: 100 loopholes	0
60	Bartizans: 20 bartizans	0
120	Bretèches: 40 bretèches	0
26	Drawbridge: 4m wide, 16m long drawbridge	0
35	Gates: two wooden gates	0

END

55	Gatehouse Towers: 10 BODY, 6 PD, 10 ED	0
	Semi-round towers with worked stone walls 7m thick, 12m tall, and 50m "long," with battlements and machicolations	
10	Gatehouse Towers: three more towers (total of 4)	0
52	Barbican: 10 BODY, 6 PD, 10 ED	0
	Worked stone walls 2m thick, 10m tall, and 30m long, with battlements and machicolations on both sides	
40	Portculli: two in each gatehouse (total of four)	0
6	Murder Holes: three in each gatehouse	0
47	Outer Barbican: 10 BODY, 6 PD, 10 ED	0
	Worked stone walls 3m thick, 5m tall, and 56m long, with battlements	
190	Moat: Change Environment -24m Running	0
	Area Of Effect (Line 500m long x 12m wide x 10m deep; +3), Long-Lasting (permanent until altered somehow), Reduced Endurance (0 END; +½), Persistent (+¼)	
30	Spiral Staircases: 30 staircases arranged to aid the defenders	0
	Personnel Systems	
42	Sanitary Tower: 10 BODY, 6 PD, 10 ED	0
	A square tower with worked stone walls 1m thick, 12m tall, and 24m "long"	
1	Well: Life Support (Diminished Eating: no need to eat or drink)	0
	Only Applies To Drinking (-1)	
	Total Abilities & Equipment Cost: 1,099	
	Total Base Cost: 1,133	
	Value Complications	
0	None	
	Total Complications Points: 0	
	Total Cost: 1,133/5 = 227	



- | | | |
|---------------------------|-------------------------------|----------------------|
| 1 Ramp | 11 Earthen Ramp (2) | 16 Inner Bailey |
| 2 Outer Barbican | 12 Barbican | 17 Corner Towers (4) |
| 3 Glacis | 13 Gatehouse Towers (4) | 18 High Tower |
| 4 Guard Tower | 14 Passageway (2) | 19 Stables |
| 5 Stone Bridges | (w/ forteullis at either end) | 20 Granary |
| 6 Moat (Wet) | 15 Gatehouse Armory (4) | 21 Covered Walkway |
| 7 Drawbridges | | 22 Sanitary Tower |
| (Pedestrian & Heavy) | | 23 Great Hall |
| 8 List Wall | | 24 Chapel Tower |
| 9 List Wall Towers | | 25 Kitchens |
| 10 Outer Bailey Buildings | | 26 Buttery |

Blackmarsh Castle

Scale in meters
 5 10 15 20 25 30 35



SKULL KEEP

Description: A classic of Fantasy literature and movies, Skull Keep is the domain of a Dark Lord of some sort — a powerful necromancer or sorcerer, a demon manifest in the material world, a fallen god of darkness, or someone similar. Its hallways and chambers are chiselled from the living rock of a mountain, and it take its name from its entrance — a gigantic human skull carved into the very face of the mountain!

The Size of Skull Keep is a guesstimate chosen to err on the high end so GMs can easily expand it if desired. The PD and ED are based on the fact that it's mostly worked stone; the BODY is chosen because that's how much BODY damage it takes to collapse one 2m x 2m x 2m section of wall or ceiling.

SKULL KEEP

Val	Char	Cost	Notes
20	Size	40	2 x 1 x 1 km; OCV+ 17
6	PD	6	
10	ED	12	
13	BODY	11	Total Characteristics Cost: 69

Cost Powers

Cost	Powers	END
30	Location: Distant, Underground	
13	Inquisitor's Hall: Interrogation 14-	
21	The Lord's Library: KS: Everything 30-	
33	The Lord's Workrooms: Power: Magic 24-	
15	High-Security Locks: Change Environment, -3 to Lockpicking	0
	Long-Lasting (permanent), Reduced Endurance (0 END; +½), Persistent (+¼); Partial Coverage (only applies to prison and arena cell door locks; -2)	
9	Arena Cell Doors: +7 PD, +10 ED	0
	Partial Coverage (-2)	
5	Smithies: PS: Blacksmith 14-	
17	Smithies: Weaponsmith (Muscle-Powered HTH and Ranged) 16-	

Total Abilities & Equipment Cost: 143

Total Base Cost: 212

Value Complications

0 None

Total Complications Points: 0

Total Cost: 212/5 = 42

The Upper Galleries

1. ENTRANCE

The entrance to Skull Keep, as mentioned above, is through the mouth of a gargantuan carved skull. The teeth resemble fangs more than true teeth. Walking through the mouth disturbs most visitors. Two braziers are kept lit here at all times.

There are usually at least two guards at the entrance (sometimes more). Typically the guards are accompanied by imps, familiars, spirits, or some other small creature that can rapidly flee into the Keep and alert the other inhabitants of an attack.

The entrance admits visitors into the Upper Galleries, the highest level of Skull Keep. The Lower Galleries are accessed by stairs within the Keep.

2. THE ENTRANCE HALL

The first room inside the Keep is the Entrance Hall, designed to showcase the grandeur and power of the Keep's master. It's lit with perpetual torches that give off no smoke. The floors and support columns are made of red-veined black marble, and the ceiling is covered with sheets of lapis lazuli to mimic the nighttime sky. On the walls are hung magnificent tapestries showing the deeds of the Keep's lord (or those of his patron god or devil, perhaps...). If visitors are expected, a delegation (or at least a guide) meets them here. During an attack, the Keep's guards use the columns for cover and, if necessary, gradually fall back to the tunnel that leads into the Keep so they can make another stand at more easily-defended areas (such as the bridge).

4-7. THE BRIDGE AND THE WATERFALL

A short way beyond the Entrance Hall an underground river cuts across the hallway; it's crossed by a sturdy stone bridge carved of grey granite with posts and other decoration with a demonic theme (or whatever else is appropriate to the Keep's lord). Anyone pushed off the bridge and into the water would have to succeed with a STR Roll against STR 20 every Phase to avoid being swept down one of the exit watercourses (which are larger than human size) and drowned. As long as the Keep's forces control this part of the Base, the waterfall provides an inexhaustible source of water for the Keep.

The noise from the waterfall imposes a -5 penalty on all Hearing PER Rolls made in this room.

8-10. THE DREAD HALL

This room, the most magnificent and impressive aside from the Audience Chamber, is where major ceremonial events are held. If the Keep's lord wants to have a welcoming reception for visitors, it would be held here. If he has to perform a major demon-summoning ritual that's too grandiose for his private workrooms, he'd perform it here.

The room itself is made of the same red-veined black marble that graces the Entrance Hall. Four detached square columns faced with red jasper support the roof; they're cleverly carved in the shapes of long, slender dragons, with the dragons' wings functioning as arches to support the vaulted roof. Special torch-holders built into the dragon's mouth help light the room by making it appear the dragons are breathing flame. There are other support columns on the walls; these are faced with black marble and carved in the shape of gods, demons, and similar mythological beings.

Dominating the room in the center is a round platform that's 2m higher than the floor of the chamber. In the center of the platform is the Pillar of Bones, an enormous fretwork "sculpture" made of the bones of the Keep lord's defeated enemies. Every time he slays another worthy foe the lord works some of that foe's bones into the Pillar. Some visitors who've studied the Pillar closely claim that if you look carefully from certain angles in certain light, the bones form mystic runes that spell out disturbing messages, mysterious arcane lore, or even powerful incantations, almost as if the Pillar were some vast osseous grimoire.

15-17. THE AUDIENCE CHAMBER

This room is described in detail below with accompanying breakout map, since it's where visitors tend to encounter (or confront) the lord of the Keep.

18-20. THE ARENA

This room is described in detail below with accompanying breakout map, since it's where unlucky adventurers who invade the Keep may end up.

21. OBSERVATION OVERLOOK

This spiral staircase leads up a long way to the Observation Overlook — the eyes of the carven skull, from which the Keep's lord or a visitor can see for hundreds of miles. Of course, there's no railing, so anyone who gets too close to the edge and slips... or is pushed... will fall to his doom.

23-25. VISITORS' AREA

If the lord of the Keep wants to entertain honored visitors, here's where they'd stay. There are (relatively) luxurious rooms for the guests themselves, small rooms for their servants, and a "common area" where guests are entertained and eat when not spending time with the lord himself.

The Lower Galleries

Compared to the Upper Galleries, the Lower Galleries are much plainer and utilitarian. This is where the servants and slaves of the Keep's lord live and do most of their work, and where the mundane functions of the Keep are performed.

5. THE SLAVE PITS

This room is described in detail below with accompanying breakout map, since it's where unlucky adventurers who invade the Keep may end up.

6. PASSAGE TO THE MINES AND SMITHIES

Down deep below the Lower Galleries proper are rich mines of iron and other minerals (including some gold), and smithies where the raw ore is converted into weapons, armor, and other goods the Keep and its lord need. Both the mines and the smithies themselves are hot and stifling; no one of the Keep goes down here unless he has to. The smithies are worked by servants loyal to the Keep's lord; the mines are worked by slaves watched by cruel overseers.

9-12. THE INQUISITOR'S HALL AND THE PRISON

The Keep lord often has cause to take prisoner and put them to the question. The Inquisitor's Hall is one of the most elaborate, best-stocked interrogation/torture rooms in the world. Overseen by Chief Torturer Torvak, a malignant half-orc, and his small staff of assistant torturers, it contains implements of agony so horrifying that just looking at this room for the first time may give even hardened adventurers pause. (Consider the first impression a Presence Attack 6d6.)

Prisoners are kept in cells nearby; there are 16 cells, each capable of holding one person (though sometimes more, since the jailors care nothing for their prisoners' comfort except as the Keep lord instructs them to). The door to each cell is made of thick oak planks reinforced with iron (PD 5, ED 5, BODY 5) and locked with a particularly devilish lock (-3 to Lockpicking rolls). The chief jailor, a sort of sentient, swift zombie-like being known simply as Jailor, keeps all the keys on a large, heavy iron ring that he also uses to club prisoners (HA +2d6).

13-16: GLADIATOR ROOMS

Some of the fighters in the Arena are gladiator slaves. This section of the Keep is where they train and live. The "Honor Cells" are private quarters for gladiators who've particularly distinguished themselves... though some of the gladiators claim that they're bad luck, that anyone who lives in one is doomed to die in battle.

17-22: ARENA PENS

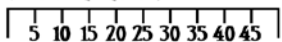
The lowest level of the Arena (see below) lines up with the Lower Galleries. An access door (PD 5, ED 5, BODY 5) leads to a corridor that's lined with pens for the beasts and monsters featured in arena fights. (Intractable slaves destined for the Arena are also kept here, if there's room; if not they may simply be tossed into a monster's cell as a meal.) The cages have doors made of strengthened metal bars (PD 13, ED 20, BODY 8), and from the main corridor there are viewing windows lined with similar bars so that the Keep lord's guests can view the monsters before a fight if desired.



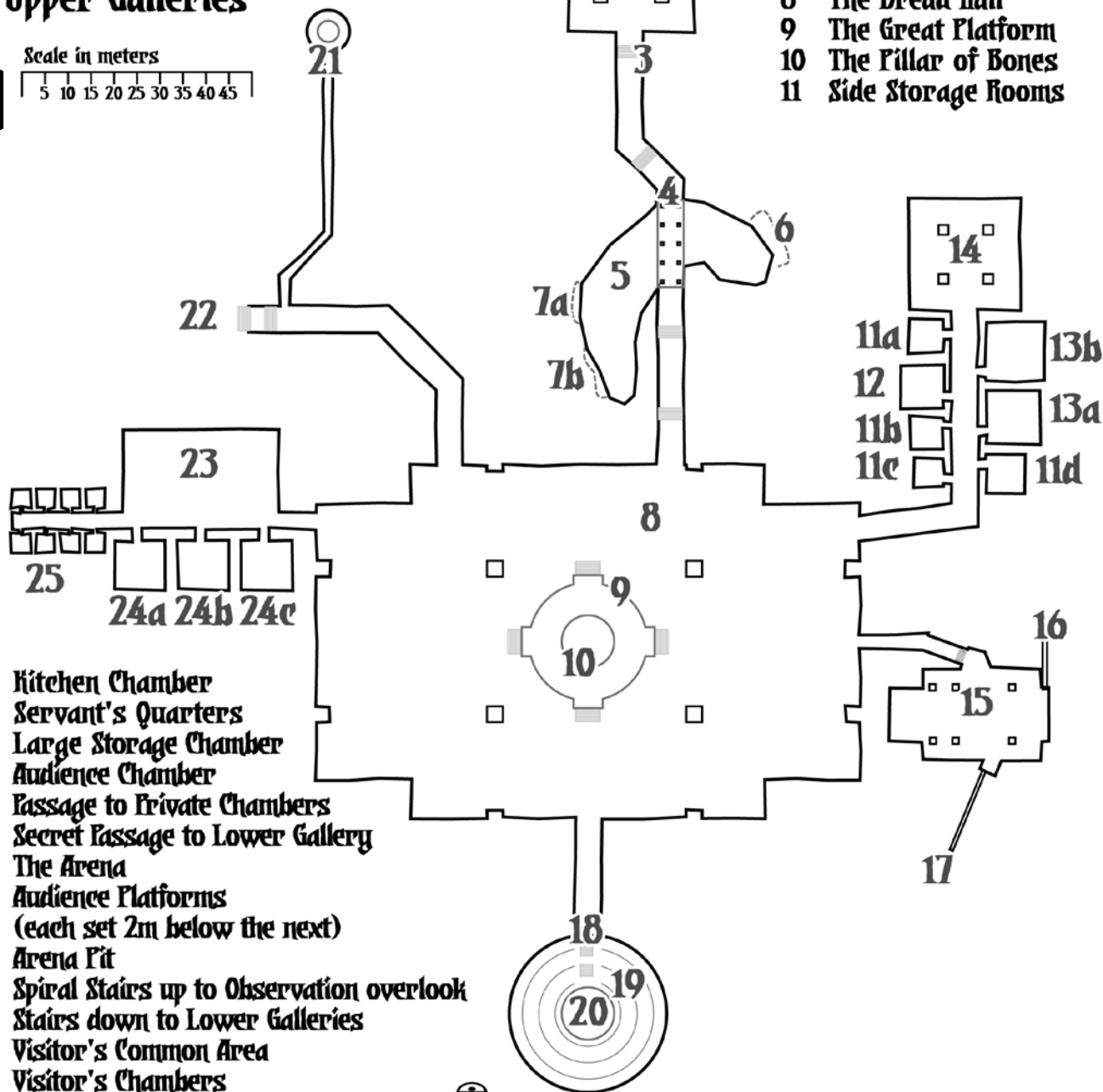
Skull Keep

Upper Galleries

Scale in meters

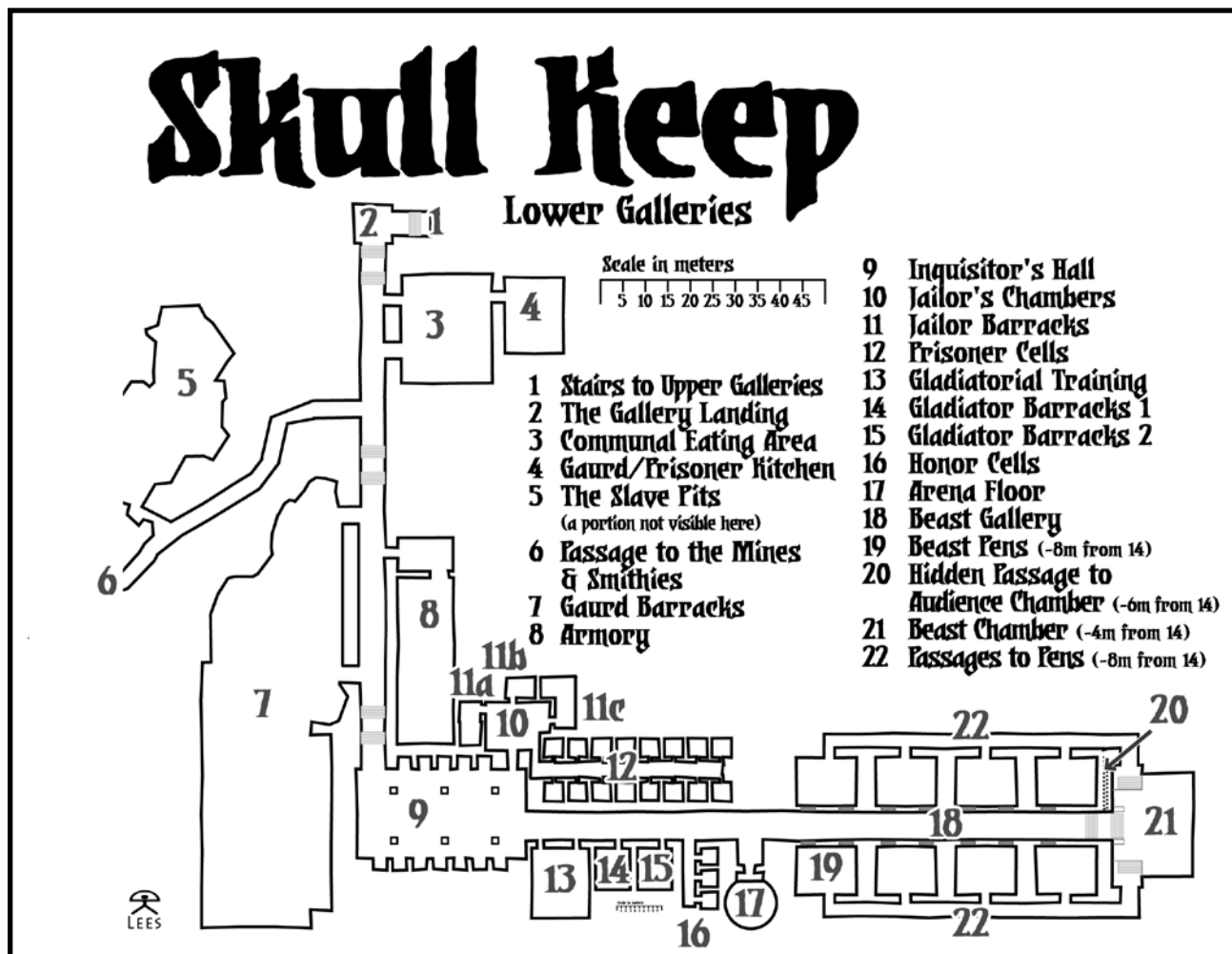


- 1 Skull Mouth Entrance
- 2 The Entrance Hall
- 3 Stairs (typ)
- 4 The Stone Bridge
- 5 The Waterfall Chasm
- 6 Waterfall Entrance
- 7 Exit Watercourses (half submerged)
- 8 The Dread Hall
- 9 The Great Platform
- 10 The Pillar of Bones
- 11 Side Storage Rooms



- 12 Kitchen Chamber
- 13 Servant's Quarters
- 14 Large Storage Chamber
- 15 Audience Chamber
- 16 Passage to Private Chambers
- 17 Secret Passage to Lower Gallery
- 18 The Arena
- 19 Audience Platforms (each set 2m below the next)
- 20 Arena Pit
- 21 Spiral Stairs up to Observation overlook
- 22 Stairs down to Lower Galleries
- 23 Visitor's Common Area
- 24 Visitor's Chambers
- 25 Visiting Servant's Cells





The Audience Chamber

The Audience Chamber was designed as much to instill a sense of awe as to create a sense of majesty. The chamber is entered from the western edge corridor off of the Great Hall. The ceiling of the Main Hallway (1) is vaulted, with engaged columns (2) running up and down the length of the passageway. The columns are carved in the shape of humanoid beings of various sorts, and are all very well sculpted. Torch sconces (not numbered) are set into the walls just enough that their flickering light casts the hallway in eerie shadow-strewn light. (This gives a +1 to Stealth rolls for adventurers trying to sneak down this corridor.)

At the end of that Hallway is the Stairway (3) that leads up into the connected Antechamber. The Stairway is flanked by two braziers, which light this area (and the Chamber beyond) much better than the hallways. (Touching any brazier, most of which have bowls .5m wide filled with oils rather than wood or coal that gives the chamber an acrid stench, causes a bad burn; falling onto one or having its contents dumped onto a character does 1d6+1 Killing Damage.) From the Antechamber, a good deal of the Audience Chamber can be seen. Its vaulted ceiling is supported by substantial columns (5) set in pairs at irregular intervals along the center of the Chamber, but these pillars aren't carved.

The columns, floor, and ceilings are of grey marble with black veins, and the walls have exquisite, deep-cut bas-reliefs (what they depict depends on who the lord of the Keep is, but they should be impressive and/or disturbing).

At the far north end of the chamber, tucked into the western corner of an alcove, is a somewhat narrow passage (at least by the standards of Skull Keep, since it's a mere one meter wide) that leads to the Keep lord's private chambers and workrooms (11) (which are not depicted on the map). This passage is difficult to see, and at times the lord has placed tapestries or other visual barriers over the entrance.

The northern end of the Audience Chamber is dominated by the raised platform (8) that's 2m above the main floor. It's accessed by either of two curved stairs (7) that lie near the center of the chamber. No railing is provided on stair or platform, and the steps themselves are quite steep. The Platform contains a second, smaller platform (9) that's ½m above the floor of the larger platform. On the forward edge of this second platform rests the opulent throne of the Keep's lord (crafted in whatever style's appropriate to him — for a Dark Lord it might be made of ebony and obsidian and carved with demons and serpents, for a necromancer it could be made of bone, and so forth). Several Braziers light the throne platform from the sides.

The Arena

For the amusement of the Keep's lord, his minions, and his guests, gladiatorial battles are fought here pitting man against man, beast, or monster, as the lord desires. The room is circular with a dome-like roof supported by engaged columns carved in the shape of gladiators; the roof and walls are faced with light-colored stone to reflect the torchlight and make it easier to see.

There are three tiers of seating surrounding the floor: one at the same level as the entrance corridor; one two meters below that; and one four meters below that. The highest seats are usually considered "the best" and reserved for the Keep's lord and his guests (he sits at the southernmost point of the room, opposite the entrance, and the more honored a guest the closer he gets to sit to the lord). However, some aficionados of the fights among the lord's servants claim that the lower-tier seats close to the action are truly the best; they compete (and even fight) among themselves for the preferred spots.

The Arena floor itself is a circle 14m in diameter. It's 4m below the level of the lowest tier, and further separated from it by a 1m high stone railing. Gladiators, monsters, and beasts are brought into the Arena through a Lower Gallery corridor (see #13-22 in the Lower Gallery).

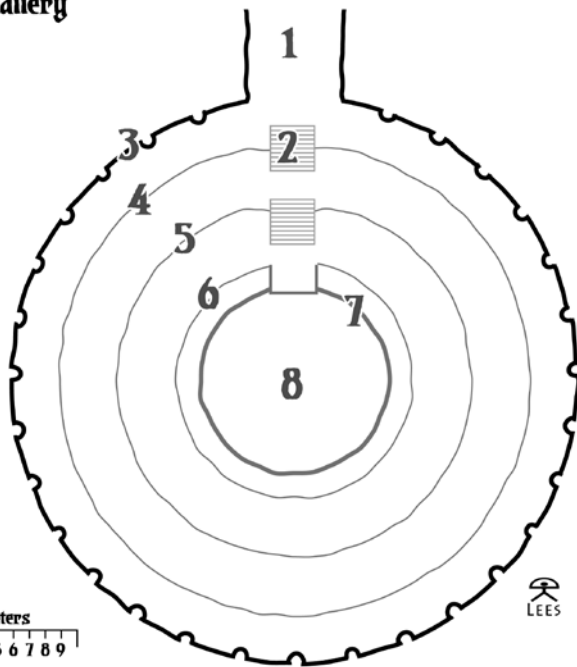
The Slave Pits

Most of the Keep lord's slaves are housed in the Slave Pits, a natural cavern with numerous niches chiselled into the walls for slaves to sleep in. There's a single entrance sealed off by a pivoting stone; moving the stone requires STR 30 worth of lifting capacity from the outside, but STR 80 worth of lifting capacity from the inside. Most of the slaves are too broken, dispirited, or weak to even try to move it in the hopes of escaping... not that escape would be likely even if they got the door open.

The cavern is fitfully lit by a few suspended braziers and small cook-fires, and the ceiling is supported by some square columns as well as three large natural pillars. There are only two notable features in the room. The first is the Speaking Rock (6), the highest point in the room. If a slave wants to address his fellow slaves, sing, or the like, he climbs to the top of this rock so he can more easily be seen and heard. The second is the Blood Rock (7), so-called because it's where two slaves who have a dispute settle it with a no-holds-barred fight.

The Arena

Upper Gallery



Scale in meters
1 2 3 4 5 6 7 8 9

- | | |
|-----------------------------|--------------------------|
| 1 Hallway to the Dread Hall | 5 Middle Tier (-2m) |
| 2 Stairs (typ) | 6 Lower Tier (-6m) |
| 3 Engaged Columns | 7 Lip of the Arena |
| 4 Upper Tier (0m) | 8 The Arena Floor (-10m) |

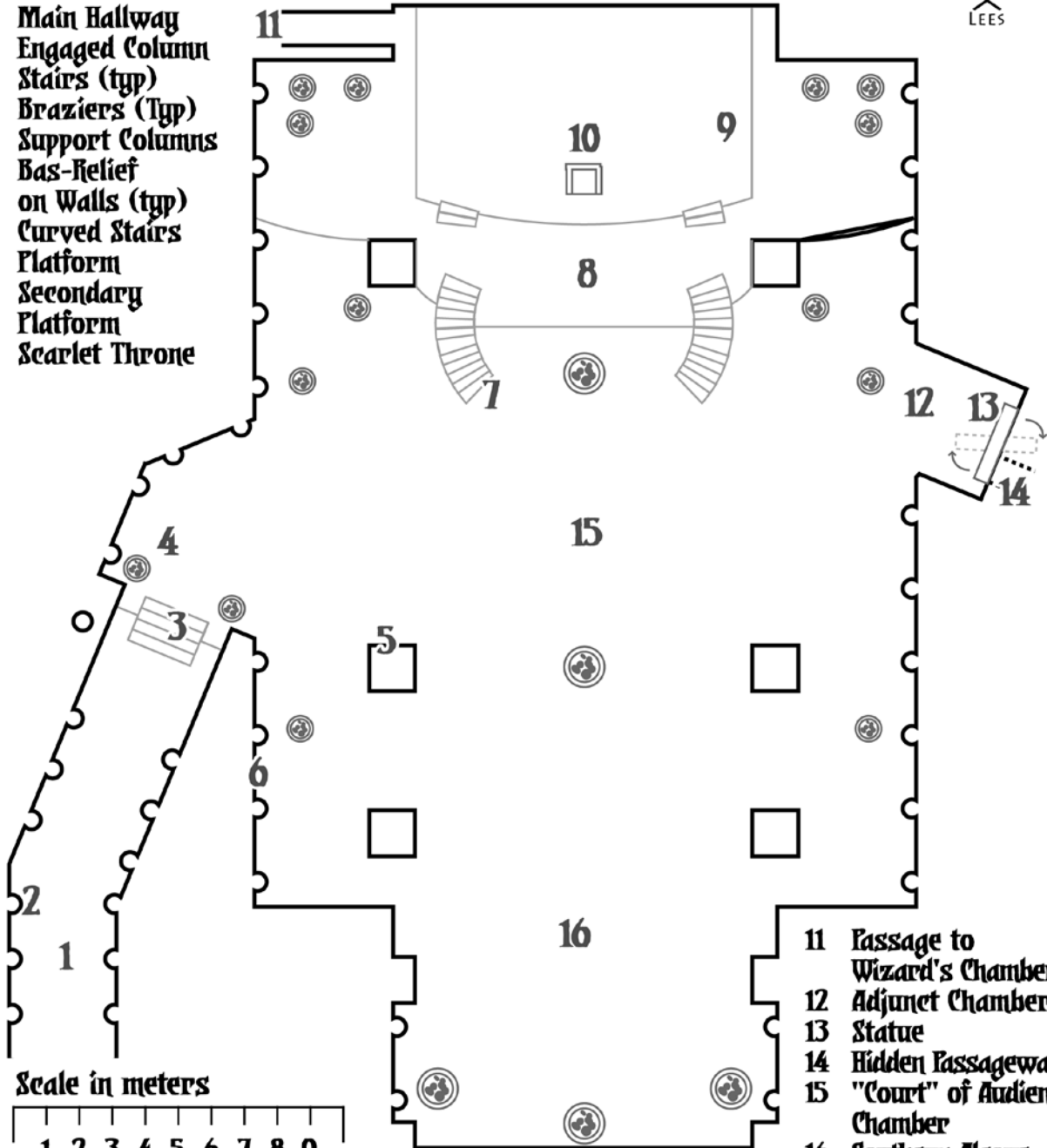
Most who come to the Audience Chamber to see Keep's lord must stand in the center of the chamber (15) so the lord can see them and deign to entertain their audience if it suits him. The acoustics of the room permit even a whisper uttered in this area to be heard by a person seated on the throne, and any sound made here has an eerie not-quite-echo quality.

A small adjunct chamber occupies the middle section of the south wall (12). It's set at an angle so the interior is plainly visible from the throne. At the far end of the adjunct is a curious statue (13) of a male figure in agony; it's a relief carved into a slab that's been placed against the adjunct chamber's back wall. Curious glyphs or ridges are found on the edges of the statue, some of which incorporate tiny jewels or gemstones that blaze with an inner light. One of these is a catch that allows the slab to pivot — it's really a secret door that opens onto a passageway (14) that leads to the Beast Pens in the Lower Galleries.

The southern end of the Audience Chamber (16) is where most of the Keep lord's sycophants gather — high-ranking servants, power-seekers and rogues, out-of-work assassins and nobles whose tastes have become so jaded that they run to the perverse, and assorted wretches and hangers-on. These people usually retreat to the furthest reaches of this side of the chamber, in what is essentially a large alcove against the back wall, lit by two braziers but still murky with shadows. That which they do there is best not mentioned here.

Audience Chamber

- 1 Main Hallway
- 2 Engaged Column
- 3 Stairs (typ)
- 4 Braziers (Typ)
- 5 Support Columns
- 6 Bas-Relief on Walls (typ)
- 7 Curved Stairs
- 8 Platform
- 9 Secondary Platform
- 10 Scarlet Throne

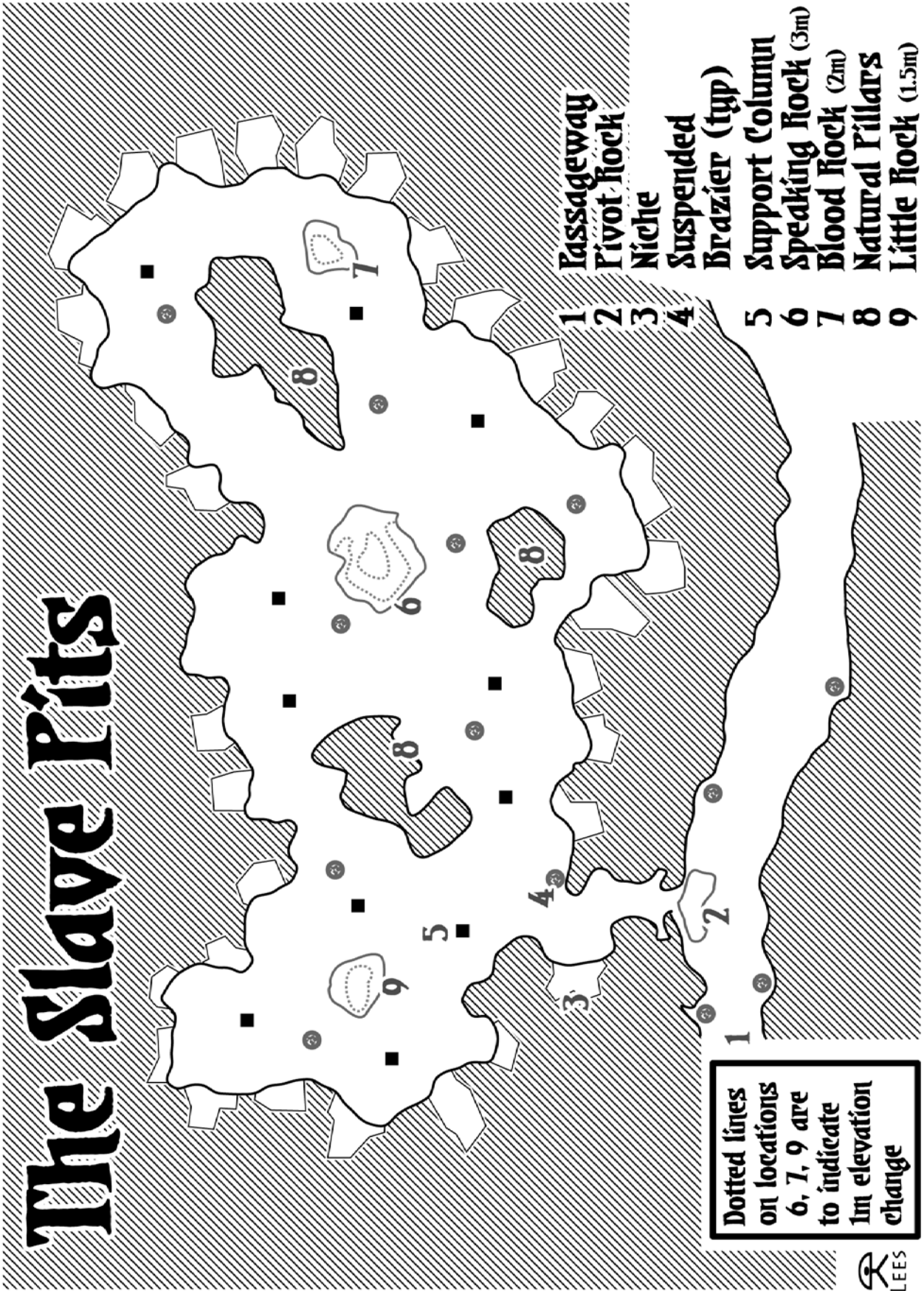


- 11 Passage to Wizard's Chambers
- 12 Adjunct Chamber
- 13 Statue
- 14 Hidden Passageway
- 15 "Court" of Audience Chamber
- 16 Southern Alcove



2

The Slave Pits



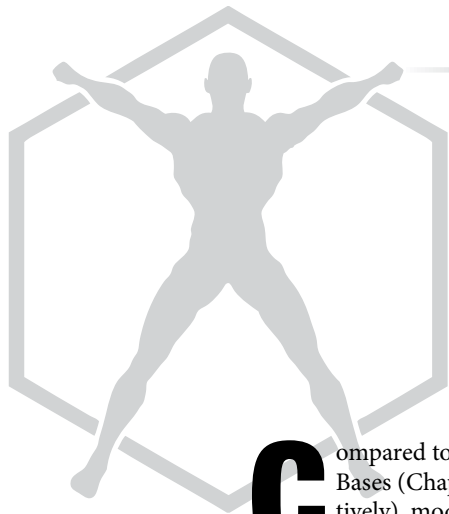
- 1 Passageway
- 2 Pivot Rock
- 3 Niche
- 4 Suspended Brazier (typ)
- 5 Support Column
- 6 Speaking Rock (3m)
- 7 Blood Rock (2m)
- 8 Natural Pillars
- 9 Little Rock (1.5m)

Dotted lines on locations 6, 7, 9 are to indicate 1m elevation change





CHAPTER THREE
MODERN-DAY
BASES



MODERN-DAY BASES

Compared to Fantasy and Science Fiction Bases (Chapters Two and Four respectively), modern-day bases — whether they're the almost entirely mundane safe-houses of Le Carré-style spies or the super-tech gadget-filled headquarters of superhero teams — are relatively familiar to gamers. You see buildings like these every day; you understand (more or less) how they're built, how they function, and what their infrastructure's like. Therefore this chapter delves more into the nature and purpose of modern-day bases rather than the nuts-and-bolts of their component “pieces.”

BASE PURPOSE

Before designing a modern-day Base, you should decide what the Base is for. That one decision affects every other decision you're going to make. Some sample purposes for modern-day Bases include:

EMERGENCY HIDEOUT/SAFE HOUSE

This site is a planned fallback position for a character who's suddenly on the run. It's probably very small, often no larger than a smallish apartment, and well concealed. Its facilities are limited — again, about the same as an apartment, perhaps with some advanced communications or scientific systems and multiple access/escape points. Because of their size and the fact that they're not visited very often, Emergency Hideouts/Safe Houses tend to remain undiscovered by a characters' enemies... until it becomes important to the story.

See *The Safehouse* on page 105 for an example of this type of Base.

IDENTITY INSULATOR

Superheroes, undercover agents, and masked mystery-men often need a place to go where they can change from one identity to another safely, and perform other tasks that they need to keep secret. Bases that function as identity insulators tend to be very well-concealed but situated in a very public area and include a convenient way for the character to enter and exit without the access being noticed. For example, an identity insulator Base might have its accesses be set up in a darkened portion of a traffic tunnel. As he

enters that section of tunnel, the character hits a button that lowers a concealed ramp, allowing him to drive up into the Base in a moment, then raises the ramp before another driver sees it; when exiting, the character gets up to speed in a separate tunnel above the traffic tunnel, timing his exit to merge with traffic, and drops down to the darkened section via another ramp. Another approach might be to have the normal-identity access through a side door in a train station or bus station, with the super-identity access in a concealed hatch on the same building's roof. Either way, identity insulator Bases tend to be light on amenities, and in many cases none of the equipment or materials within it connect the super identity to the normal identity.

LAIR/HIDEOUT

Associated with villains (super or otherwise), a Lair (*a.k.a.* the Hideout) is where a Bad Guy lives and schemes. Its primary features are secrecy and security. Whether it's located in an abandoned section of sewer system beneath the city, in a distant wilderness locale, or underwater, it's not a place most people know about or can get to. Safe within its walls, a villain can hide out from the law, research his latest super-weapon, and formulate his next plan for world domination.

MILITARY

This type of Base is common in some Dark Champions campaigns, though it's not a type of Base characters tend to buy — it's the sort of thing that the government spends your hard-earned tax Experience Points on. A military Base is one created for a military purpose, be that holding a valuable piece of land, training troops, testing weapons, or all of the above.

Military bases tend to be large; they can include arsenals, armories, barracks for soldiers, motor pools, firing ranges, proving grounds, perhaps even research facilities. In a more fantastic or Superhero context you just change things to suit the genre: soldiers become agents; guns become blasters; tanks become hovercraft; barbed wire-covered chain-link fences become force-fields.

In either case, military Bases tend to be located in specific places for specific reasons. Either the location has tactical/strategic value (for example, it guards a valuable asset like Fort Knox or a nuclear

weapons launch facility), or it offers something the military needs (like a *lot* of open land). Most military Bases aren't located in or near cities, though there are plenty of exceptions to that guideline — and in a Superhero setting, where a Base can float in the air or be underwater, it might be very possible to have a large military complex within or right next to a city without disrupting the citizens' lives at all.

MUSTER POINT

This sort of Base is a place for the members of a group — such as a superteam — to gather for meetings and missions. Depending on the type of team involved, it may be hidden or publicly-known, easily accessed or built for defense. It is likely to include the facilities of an office building (communications, offices, a few labs, garage/hangar for vehicles, computer and relevant databases, even quarters for team members when they need to stay overnight or for an extended period). It may have a part-time or full-time staff of civilians to manage and repair it. Muster point Bases are usually small, but if the nature and importance of the group warrants it can be quite large.

OPERATIONS CENTER

This Base is a more formidable example of the muster point, and is one of the most common sorts of Bases utilized by Champions superhero teams. In addition to the facilities of an office building, it may have elaborate defenses to help keep it from being raided by supervillains, extensive laboratories, repair facilities for super-vehicles, superhuman-oriented training facilities, temporary holding cells specifically designed to counteract villains' powers, and a generous helping of amenities and luxuries (after all, fighting crime is tough work!). It's likely to be continuously manned by a civilian team of operatives (though they need not be soldiers or enforcers of any sort), and one or more team members, particularly those without Secret Identities, may use it as their permanent address. The Justice Squadron Mansion, described on page 86, is this sort of Base.

RESEARCH AND DEVELOPMENT

The primary purpose of some Bases is to conduct research, develop new technologies (processes, spells...), and the like. "Research" could involve actual scientific experimentation, or it might mean poring over dusty tomes in a well-stocked library, reviewing copious computer files, and so on. Whatever the specifics, an "R&D" Base tends to be heavy on laboratories (see page 120) and related facilities, such as testing grounds. In many cases they're disguised as some other type of building (such as an ordinary office park), or in the case of criminal/villainous research completely hidden, so no meddling kids or nosy heroes will disturb the ongoing work.

RESIDENTIAL

Some Bases are primarily residential in nature; their main purpose is to provide a character with someplace to live (hopefully a comfortable, if not luxurious, place!). As long as all a character does is live in a building, there's typically no need to buy it as a Base. But if he wants to expand its potential uses and purpose — to secretly fortify it to protect himself, to build covert labs inside so he can conduct research with anyone finding out about it, or the like — then the GM may want him to buy it as a Base.

ROYAL DOMAIN

This sort of Base is most common among characters with aspirations (or realities) of rule. A character might be the ruler of a small European nation, the high priest(ess) of a lost civilization living in a vast cavern system or a hidden valley, heir to an otherdimensional land, or a demigod(dess) whose personal palace is the equivalent of a small country.

In a Royal Domain, only a fraction of the people living there are actually considered Followers associated with Base's owner — most are just folks with civilian occupations who live in his land and won't necessarily help during times of trouble. Still, the resources available in a royal domain Base are considerable; they can include military forces and vehicles, economic assets, and lots of places where PCs can hide, make plans, and stash gear. And most characters who have a royal domain Base obtained it legitimately, meaning they're likely to have the legal right while there to do anything they wish, and protection from prosecution in other nations — in short, the *Diplomatic Immunity* Fringe Benefit.



MODERN-DAY BASE CHARACTERISTICS

Here are some guidelines and suggestions regarding Characteristics for modern-day Bases.

Size

Deciding on a purpose or purposes for your Base gives you some ideas of the features and facilities it should have, which in turn suggests how much Size it needs. If you don't have a sense of how large you wish it to be, then you can calculate its space based on the facilities and features you expect it to have, some of which are described on pages 36-40 or in Chapter Five. Feel free to adjust the final numbers based on a desire for more space (or a need to fit the Base into a smaller overall area), to account for high ceilings, and so forth.

BODY And Defenses

As discussed on pages 13-14, the BODY and PD/ED of a Base typically depend on its average walls. In a modern building that often means interior wood and plaster walls around 15mm thick (BODY 2, PD 2, ED 2), with thicker exterior walls of brick or concrete (BODY 3-9, PD 5, ED 10). But thicker walls, or walls made of sturdier materials, are certainly possible. For example, a house built prior to the modern day but still in use might have walls of solid wood or stone, and a superhero base could be made of super-tech plastics and metals, or even blocks of adamant conjured out of nothingness by a super-mage.

Location

Modern-day Bases can be situated nearly anywhere. Each of the Locations listed on page 15 offers advantages and disadvantages to a typical group of adventurers, such as a superteam.

CITY

Advantages: In a campaign whose adventures mostly take place in a specific city, City placement puts the characters close to the scene of the action. It also makes it easy to take advantage of city utilities, services, and so forth.

Disadvantages: City placement is also sometimes problematic; not only is space at a premium in cities, but a Base whose location is known to the public can more easily be attacked by villains, might be picketed by protesters, and so on. If the Base's location is secret, the effort required to keep it concealed is greater, owing to the higher concentration of population and traffic in its immediate vicinity. Whether it's public or secret, the heroes have to be more careful when fights in the Base spill over into surrounding areas; this placement increases the possibility innocents will be hurt.

SUBURB

Advantages: Suburban Bases have most of the same advantages as City. In addition, they're far enough away from the city's center that it's easy to have larger facilities and grounds.

Disadvantages: Suburbs are just far enough away from the city to make getting there in times of crisis take a few (possibly crucial) moments longer. In addition, if the Base is secret, strange goings-on are more likely to be noticed by crime-watching neighbors.

DISTANT

Advantages: Bases set up in distant areas — such as farmland — allow for larger facilities, and they're far enough away from prying eyes that normal levels of traffic to and from them are not likely to arouse suspicion.

Disadvantages: These sites are so far away that it will take a while to get to the scene of action even at nearby cities. A Distant Base can really benefit from the presence of a world-class teleportation device or other rapid-transit system.

FLOATING IN WATER

Advantages: Bases that float can't be reached casually; someone approaching them must do so by boat, swimming, or flying, and those approaches are comparatively easy to detect. In addition, supers attached to such Bases can participate in regular water-related recreation.

Disadvantages: Floating Bases can be sunk, which is a tremendous nuisance. They may also be subject to the perils of rough seas, hurricanes, attacks by the AquaLord's army of controlled whales, and the like.

DEEP WILDERNESS

Advantages: This site is far away from civilization of any sort — often dozens (or hundreds) of miles from the nearest road, surrounded by rough country. Its remoteness makes it difficult for people to visit casually, but gives the PCs enough open surroundings to set up their own golf course.

Disadvantages: On the down side, the Base's surroundings are so vast they're impossible to monitor effectively. People can travel or camp for days in the vicinity without the PCs knowing about it. If the Base/grounds are big enough, people could even trespass without realizing it... and perhaps witness the heroes' goings-on. And if the Base's population gets in trouble, help could be a long time in coming.

AIRBORNE

Advantages: This type of Base stays up in the air. It might be a very large, very slow-moving vehicle, such as an ultra-zeppelin, or might be as immobile as any ground Base — for instance, a magical castle built atop a cloud, or a city held aloft by antigravity generators. Its aerial nature makes it difficult to access, and it's certainly a prestigious home address with a *great* view.

Disadvantages: As with "Floating In Water" Bases, having a sudden failure of the system that holds it aloft can be catastrophic. Having to leave in a hurry can be similarly dangerous, if the departee in question doesn't know how to fly. Storms and atmospheric phenomena may occasionally make life uncomfortable.

UNDERWATER

Advantages: An Underwater Base has all the advantages of one that floats on water (above), with the additional element of a greater opportunity for concealment and privacy.

Disadvantages: If hulled, an underwater Base fills rapidly, much to the discomfort of its residents. If it's deep enough and not maintained at a surface-level atmospheric pressure, its inhabitants have to spend hours undergoing decompression before leaving — simply teleporting to the surface would be a very dangerous proposition, even for most superhumans. It may be hard for help to reach the Base, if needed.

UNDERGROUND

Advantages: Underground Bases are comparatively easy to hide, making it possible to have large, sophisticated facilities hidden in the midst of population centers. Underground Bases are difficult to invade; intruders usually have to use access routes the designers choose, or must have special abilities based on Tunneling, Teleportation, and the like. Without very sophisticated sensory abilities, it's also difficult for enemies to know about all exits (such as hidden escape tunnels). For these reasons, underground Bases are a favorite among villains and master criminals; many hero teams also find them convenient.

Disadvantages: Underground Bases have few disadvantages. If they do not possess seismic sensors, it's possible for enemies to tunnel up to them without being noticed; and the lack of picture windows may occasionally depress the occupants.

IN SPACE

Advantages: Considering that it costs governments billions of dollars to mount a space program, PCs building a Base in space can be certain that unannounced visitors fall into one of three categories: space aliens; astronauts; and superhumans with spaceflight capability. This keeps visitors to a minimum and makes identifying them comparatively easy. Bases in space are also difficult for governments to regulate, giving PC groups a measure of autonomy they cannot experience when headquartered within a nation's boundaries.

Disadvantages: For most supers, it's a long trip home, and for many it's not advisable to go outside for a walk; the environment is a very dangerous one. Besides hostile aliens, meteors, asteroids, solar flares, and other astronomical occurrences may pose a threat.

ANOTHER DIMENSION

Advantages: Even more so than with outer space Bases, alternate dimension Bases are difficult for enemies or even casual visitors to find; they require magical/mystical/high-order physics knowledge to gain access. Given the correct choice of an alternate dimension, a Base can have more room available to it than in most other environments, and can be situated in very colorful, visually interesting surroundings.

Disadvantages: Alternate dimensions are sometimes occupied or visited by very strange beings who might resent the construction of a headquarters there, putting the heroes in the position of defending their Base from beings with unpredictable motives and powers.





EXAMPLE MODERN BASES

Here are a few example Bases for use in your modern-day campaigns, ranging from the “gritty” and “realistic” to the fantastic Bases of superteams and world-conquering supervillains.

JUSTICE SQUADRON MANSION

Description: Superteam “halls of justice,” villains’ secret headquarters, and mad scientists’ hidden laboratories are staples of the Superheroes genre (and in slightly different forms of other types of fantastic adventure fiction, such as Pulp stories). Not every superhero needs a Base, but some — such as Batman’s renowned Batcave — are absolutely essential as refuges, storehouses, and places where the hero can perform research, build gadgets, or devise new spells.

As an example of a superhero team’s Base, here’s the Justice Squadron Mansion, headquarters for the Champions Universe superteam. The Justice Squadron is a decades-old, world-famous superteam; smaller or less well-established teams may not have as large, elaborate, or well-equipped Bases.

The Justice Squadron headquarters is located in a mansion in the Brooklyn Heights area of New York City. The building was a 14-story hotel in the 1920s, but was converted to the Squadron’s use in the early Seventies; each floor of the Mansion fills the space of what were two stories in the hotel, to allow for the necessary high ceilings in some areas. Although the nearby buildings look perfectly ordinary, for the sake of civilian safety most of them are actually a part of the JS headquarters — they’re connected to the Mansion itself via underground walkways, tunnels, and conduits. (Those are not written up as part of this Base description, but are included in the Size purchased for the Base.)

The Mansion is seven stories tall and still looks, on the outside, like a carefully-maintained, elegant 1920s-era building. Inside it’s a different story, with the most modern of decor and high-tech furnishings and facilities suitable to one of the world’s leading superhero teams.

The exterior and interior walls look like they’re made of ordinary materials, but are actually constructed of a super-tech composite that’s far more durable than brick, wood, and plaster.

Compared to other superhero teams, the Justice Squadron has very few human employees — just some accounting, public relations, and legal personnel, for the most part. The other “employees” are all robots built by Digitak years ago, and since maintained and improved by Electron and Blink. The robots look mostly human, but are obviously robotic.

For more information about the Justice Squadron and its members, see Chapter Four of *Champions Universe: News Of The World*.

MANSION SECURITY

The Justice Squadron takes the security of its headquarters and “home” seriously, particularly because parts of the base are accessible to the public. First, the walls, doors, and windows are strengthened and reinforced, as discussed above. Second, access to most parts of the building, including passing through any door regarded as “main” or “primary,” requires both an authorized electronic keycard *and* properly responding to a voiceprint authorization system; both the lock and the system are state of the art and very difficult to bypass or negate. Third, all non-private parts of the Mansion, and the streets surrounding it, are covered by closed-circuit TV security cameras with IR and UV capability; security personnel in the Security Wing on the Fifth Floor can monitor sixteen of the cameras at a time.

JUSTICE SQUADRON MANSION

Val	Char	Cost	Notes	END
19	Size	38	1 x 0.5 x 0.5 km; OCV+ 16	
8	PD	9		
8	ED	9		
12	BODY	10	Total Characteristics Cost: 66	
Cost Powers				
0	Location:	City		
Tactical Systems				
8	Cells:	+7 PD, +7 ED, and +3 BODY	Partial Coverage (-2)	0
218	Power Suppression Systems:	Suppress 20d6	Expanded Effect (all powers of a given special effect simultaneously; +4), Variable Special Effects (any eight special effects simultaneously; +1); OIF Immobile (-2), Costs Endurance (to maintain; -½), Only Within Defined Area (the cells on the Fifth Floor; -2)	120
190	Power Suppression Backup Generator:	Endurance Reserve (1800 END, 180 REC)	OIF Immobile (-2)	0
4	Secure Storage Area:	+4 PD, +4 ED	Partial Coverage (-2)	0
4	Secure Storage Area:	Mental Defense (12 points)	Partial Coverage (-2)	0
4	Secure Storage Area:	Power Defense (12 points)	Partial Coverage (-2)	0
13	Interrogation Room:	Interrogation 14-		
24	Keycard Locks:	Change Environment, -4 to Lock-picking rolls	Long-Lasting (permanent), Reduced Endurance (0 END; +½), Persistent (+¼); Partial Coverage (only applies to primary doors in secured areas of the Mansion; -1)	0
4	Voiceprint Analyzer:	Detect Authorized Voice 16- (Hearing Group)	OIF Immobile (-1½), No Range (-½), Partial Coverage (only applies to primary doors in secured areas of the Mansion; -1)	0
24	Voiceprint Analyzer Security:	Change Environment, -4 to Security Systems rolls	Long-Lasting (permanent), Reduced Endurance (0 END; +½), Persistent (+¼); Partial Coverage (only applies to voiceprint analyzers in the Mansion; -1)	0
13	Security Cameras:	Clairsentience (Sight And Hearing Groups)	Multiple Perception Points (up to 16 at once); OAF Immobile (-1½), Affected As Radio Group As Well As Sight/Hearing Groups (-¼), Fixed Perception Points (-1)	5
2	Multispectrum Cameras:	Infrared Perception (Sight Group)	IAF Immobile (-1½)	0
2	Multispectrum Cameras:	Ultraviolet Perception (Sight Group)	IAF Immobile (-1½)	0

Operations Systems

182	The Gauntlet:	Variable Power Pool, 150 base + 150 control cost	var
		Reduced Endurance (0 END; +½); OIF (all powers bought with the VPP must have a Focus Limitation of -½ or greater; -½), Only Within Defined Area (value varies based on relative size, for this example assume -2)	
3	Communications Systems:	HRRP	1
		OAF Immobile (-2), Affected As Sight And Hearing Group As Well As Radio Group (-½), Costs Endurance (-½)	
13	Laboratories:	Computer Programming 14-	
13	Laboratories:	Electronics 14-	
13	Laboratories:	Mechanics 14-	
5	Tailoring Workshop:	PS: Tailoring 14-	
5	Ultrajet Hangar:	SS: Aerospace Engineering 14-	
5	Laboratories:	SS: Biology 14-	
5	Laboratories And Tailoring Workshop:	SS: Materials Science 14-	
5	Laboratories:	SS: Physics 14-	
5	Laboratories:	SS: Robotics 14-	
5	Laboratories:	SS: Medicine 14-	
7	Laboratories:	SS: Super-Science 16-	
10	High-Speed Internet Access:	KS: Everything 30-	0
		OAF (computer terminal; -1)	
7	Conference Room Hologprojector:	Sight Group Images, +4 to PER Rolls	3
		Area Of Effect (1m Radius; +¼); OAF Immobile (-2), Set Effect (holographic images of places on Earth; -1)	
12	Hologprojector's Database:	AK: Earth 50-	4
		OAF Immobile (-2), Costs Endurance (-½)	

Personnel Systems

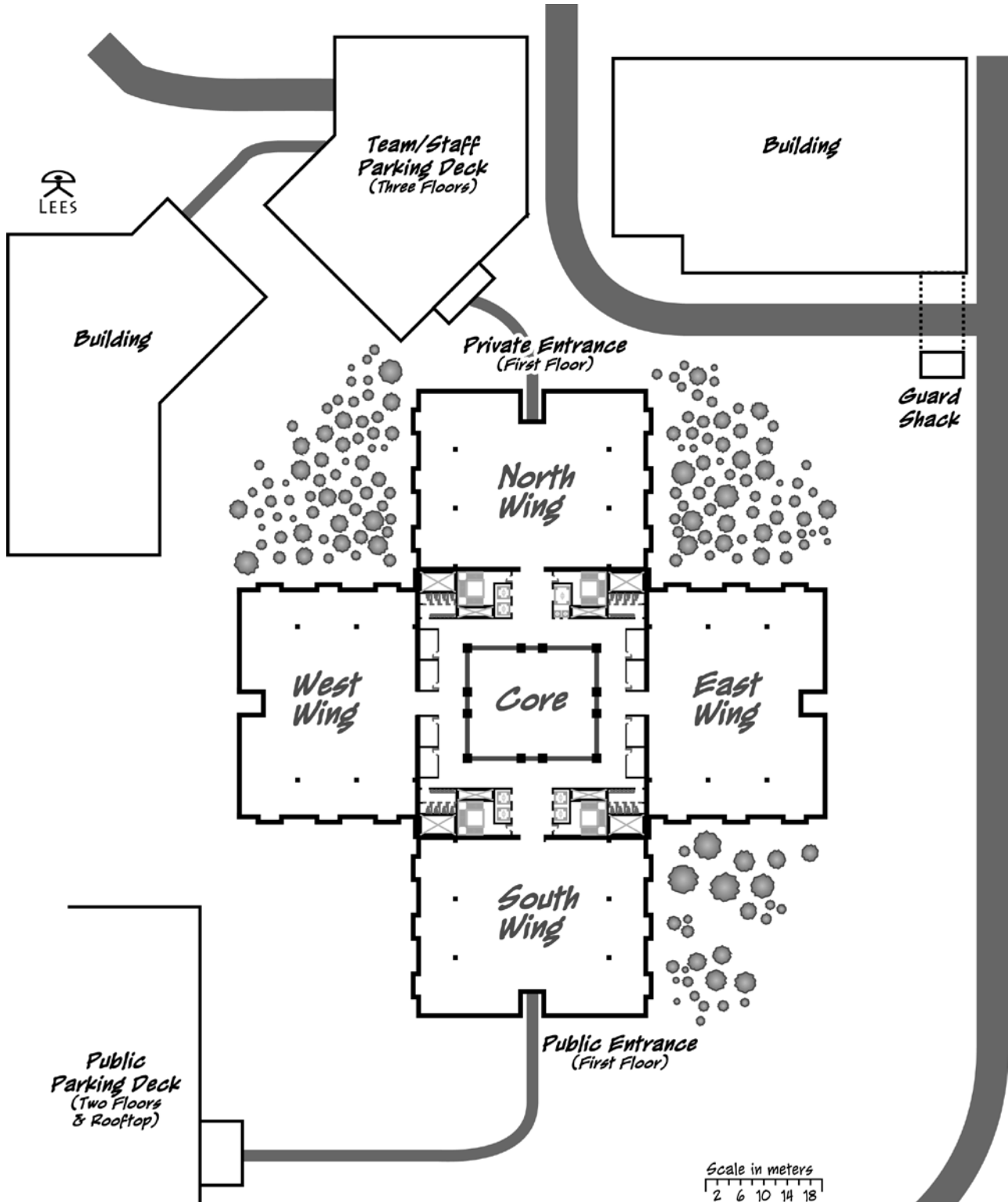
17	Super-Infirmary:	Paramedics 16-	
5	Library:	KS: Everything 14-	
Total Abilities & Equipment Cost: 827			
Total Base Cost: 893			
Value Complications			
10	Hunted:	various supervillains and other enemies (Infrequently, As Pow, Capture/Destroy)	
15	Social Complication:	Public Identity (Frequently, Major)	
Total Complications Points: 25			
Total Cost: 893/5 = 179			

OTHER EQUIPMENT

Cost	Power	
10	Elevators:	10 elevators (see Chapter Five) 0
70	Digivak:	Use the Ultra-Advanced Computer from Chapter Five, with the following options: Artificial Intelligence (EGO 20), Cyberkinetic Shielding I, Hardening I and II, Combat Subroutines, Diagnostic Subroutines; Navigation Subroutines; Translator; Science Base Computer; Superhero Base Computer; Computer Net Access
55	Robots:	125 robot Followers built on up to 100 Character Points each



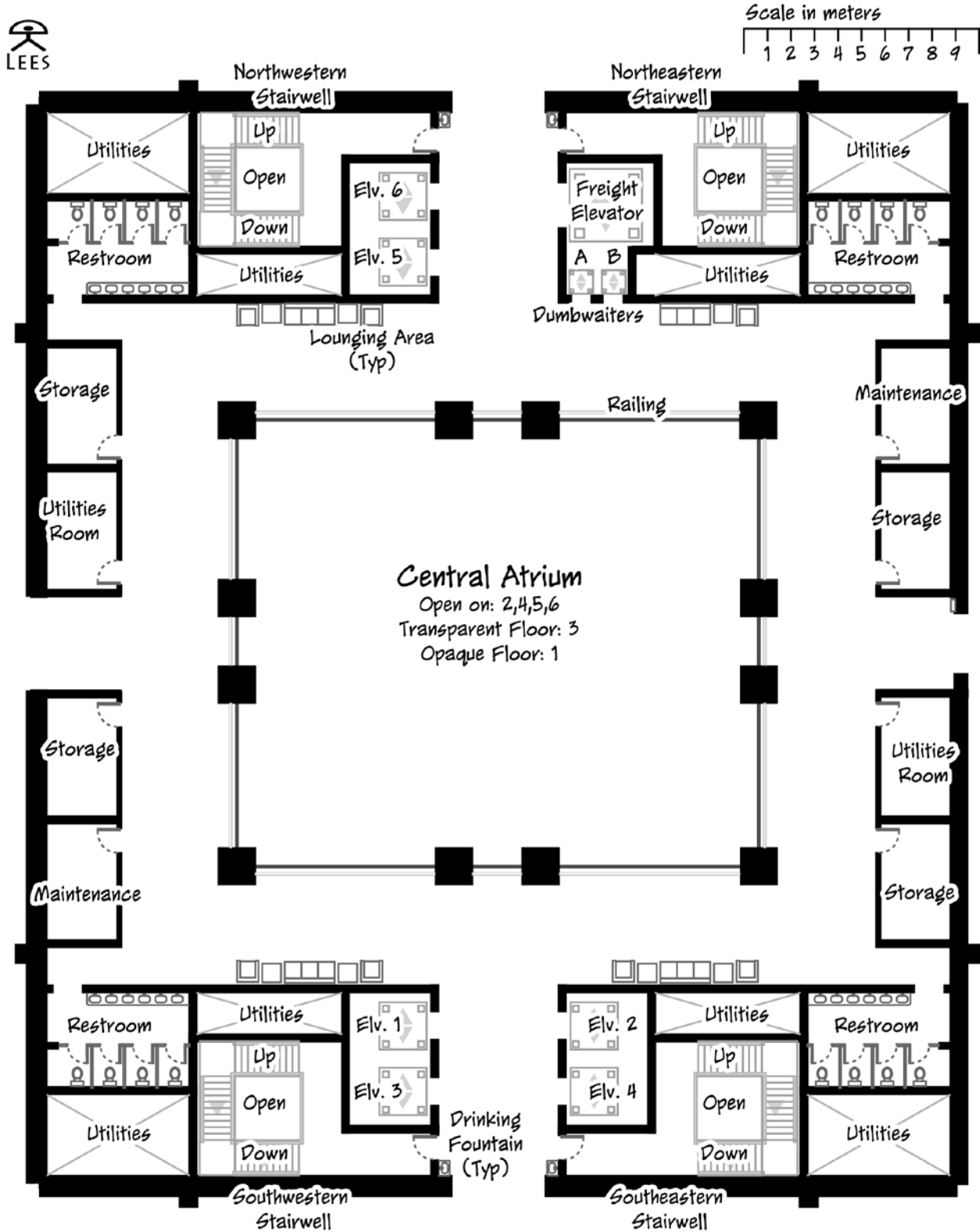
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Justice Squadron Mansion

Overall Building Orientation

Justice Squadron Mansion Core



THE MANSION'S CORE

The core of the Mansion runs through every floor and provides a valuable service and utility function. In addition to the four stairwells (designated Northwest and Southwest, Northeast and Southeast), the Core provides two banks of elevators and public restrooms along with storage and utility areas. On the First and Second Floor, two of the southernmost banks of elevators are accessible by the public, but the rest of the elevators are available only to people who have an authorized keycard and voiceprint.

FIRST AND SECOND FLOORS

The first two floors of the Justice Squadron Mansion (JSM) are open to the public, giving the team a “public face” that’s helped to establish it as one of the most popular hero teams in the world. The West, East, and South Wings of each of these floors are open for public visits, with guided tours four times a day on weekdays and once on Sundays at 1:00 PM.

The atrium is a huge open space that runs up through the rest of the Mansion (though there’s a transparent “floor” at the third floor to restrict access). Adapted from the lobby of the original hotel, it features marble floors and massive marble-clad pillars. The First Floor level features a food court that functions as a formal dining hall or open area for special programs. The food court is run by an offshoot of the Scarlet Archer food chain and has fast, friendly service; traditionally, most of the employees are hired from the ranks of the Squadron’s fan club. Occasionally visitors get the rare treat of catching a glimpse of a team member (or other hero) as he passes through, or even stops to grab a quick bite to eat with his admirers.

The building’s main public entrance is in the South Wing. Of special interest here is the Justice Squadron Gift Emporium, directly to the left as one enters the building. Licensed merchandise can be purchased at reasonable prices in the Emporium, with the profits going straight to the charities the Squadron supports. The South Wing also includes an Information Desk and the team’s Public Relations Department (where, among other things, it holds press conferences). The PRD itself is something of a famous attraction; it comes equipped with podiums that raise and lower, voice-activated audio-visual features, and other high-tech gadgetry that the public loves to see on TV. Recent surveys indicate that the Mansion’s “briefing room” is almost as recognizable as the White House Press Room to members of the general public.

The West Wing features a museum dedicated to the team, and to the Superhero World in general, and is a popular destination for visitors. Displays here cover the history of herodome, with a special emphasis on the role played by

the Justice Squadron and its members, past and present. The East Wing contains the team’s public trophy room, with some of the more noteworthy relics of their adventures (though anything that might be truly dangerous is actually a custom-made replica).

The North Wing’s public areas contain the General Infirmary, which is also used for some medical and educational outreach programs, and the kitchens for the food court. Behind these, reachable only by those with restricted access, is the Pool and Pool Lounge used exclusively by the team members and their guests. A special stairway runs from the Pool up to the Second Floor balcony and to the third floor, allowing staff and team members to access the Pool without walking through the public areas of the Mansion. Team members sometimes use the Pool area to enter and exit the Mansion with minimal fuss, since the rear entrance leads directly to the building’s parking structure.

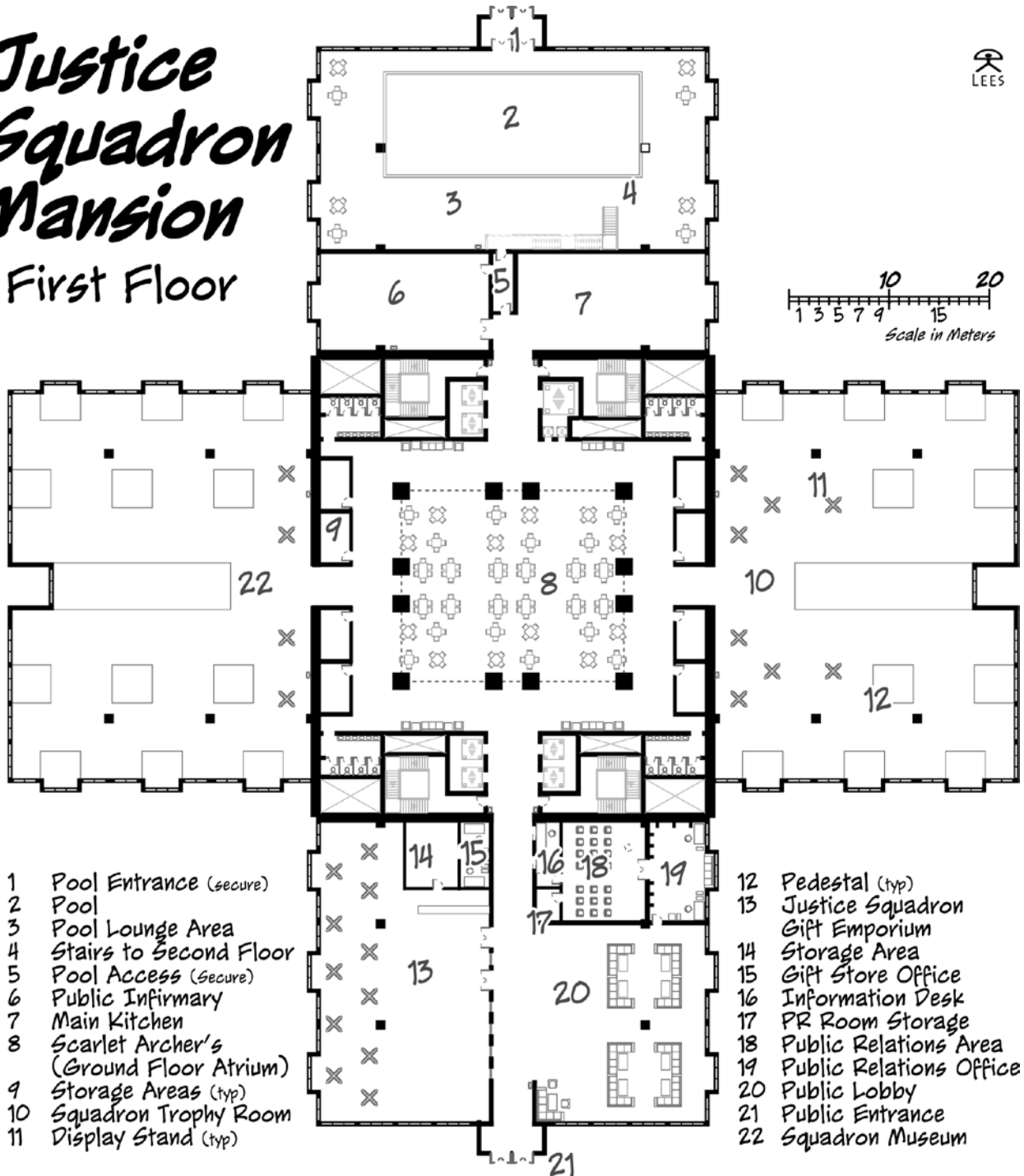
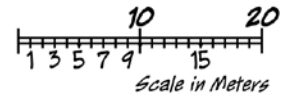
The publicly-accessible areas of the Second Floor include the balconies over the Museum and Trophy Room as well as a set of conference rooms in the South Wing. The latter were placed here so that visitors needing a casual meeting with a team member don’t have to go through the background checks necessary for someone to gain access to the restricted floors above. Several times throughout the year the Squadron holds symposia and conferences on supercrime for law enforcement officials in these rooms. These conference rooms are also available for rent by the public, such as business executives who are looking to raise their company’s profile by using a venue that’s decidedly different from the standard fare at the local hotels.

The restricted North Wing of the Second Floor features a half-level, open to the Pool Area below, that contains a small gymnasium for team members who don’t need special workout equipment, the human staff of the Mansion, and guests with access.

Access to the Third Floor from the stairwells is blocked by a security door found at the passageway leading from the stairwells to the Core on all but the Northwest Stairwell, which has a glassed-in balcony on the Second floor overlooking the team’s special stairwell access. Visitors have learned that this is the best place to catch a glimpse of team members close-up, so the team’s stationed a robotic docent here to prevent the area from being cluttered up with loitering fans. The team’s discussed using a one-way mirror in this area to prevent gawkers, but most members consider “gawking” at the Northwest Stairwell a harmless bit of fun for visitors, so no stricter security measures have been implemented. In any event, anyone who could batter down the transparent armored glass could probably get through a secured door as well, and make a lot more noise in the process.

Justice Squadron Mansion

First Floor

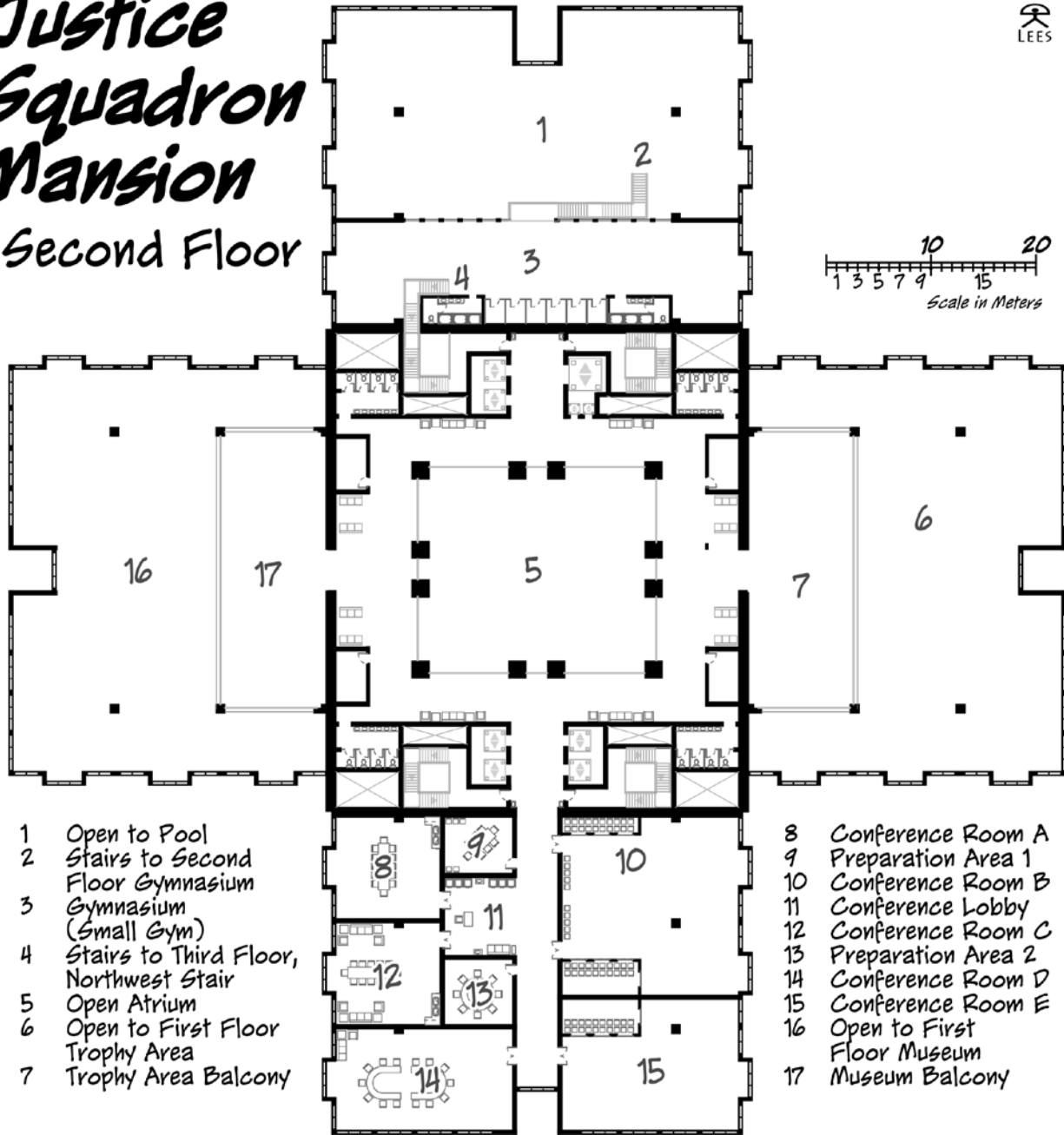
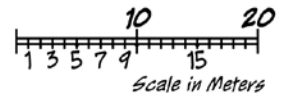


- 1 Pool Entrance (secure)
- 2 Pool
- 3 Pool Lounge Area
- 4 Stairs to Second Floor
- 5 Pool Access (secure)
- 6 Public Infirmary
- 7 Main Kitchen
- 8 Scarlet Archer's (Ground Floor Atrium)
- 9 Storage Areas (typ)
- 10 Squadron Trophy Room
- 11 Display Stand (typ)

- 12 Pedestal (typ)
- 13 Justice Squadron Gift Emporium
- 14 Storage Area
- 15 Gift Store Office
- 16 Information Desk
- 17 PR Room Storage
- 18 Public Relations Area
- 19 Public Relations Office
- 20 Public Lobby
- 21 Public Entrance
- 22 Squadron Museum

Justice Squadron Mansion

Second Floor



- 1 Open to Pool
- 2 Stairs to Second Floor Gymnasium
- 3 Gymnasium (Small Gym)
- 4 Stairs to Third Floor, Northwest Stair
- 5 Open Atrium
- 6 Open to First Floor Trophy Area
- 7 Trophy Area Balcony

- 8 Conference Room A
- 9 Preparation Area 1
- 10 Conference Room B
- 11 Conference Lobby
- 12 Conference Room C
- 13 Preparation Area 2
- 14 Conference Room D
- 15 Conference Room E
- 16 Open to First Floor Museum
- 17 Museum Balcony

THE THIRD FLOOR

The Third Floor, and all floors above it, are restricted access only. The public elevators cannot go to these floors without an authorized keycard and voice pattern, and all primary doors (and other access points) have keycard/voice locks as well.

Most of the Third Floor is given over to administrative functions: office pool, accounting, legal, and the like. Of particular note are the offices of team architect Johan LeSade (pronounced “le-shay”), who functions not just as an architect but manager of the Base’s physical plant; and the offices of the various governmental liaisons assigned to the team (primarily Melinda Ross, the team’s contact with the US government). Near LeSade’s office is the “Robot Area,” which includes a design and repair shop and a room filled with recharging stations. Any robots not on duty can be found here, charging themselves up for another shift.

The North Wing of this floor includes the Heredia Memorial Gardens, a sort of conservatory where the team grows several species of attractive or rare plants. It’s open to the Fourth Floor. Team and staff members often come here to relax in the tranquil green surroundings. It’s named for Juanita Heredia, the superheroine Ocelot, who was killed battling Dr. Destroyer during his infamous first appearance in 1975. Near the Gardens are four Recreation Rooms containing video games, a billiard table, and other amusements for the team, staff, and guests.

The western wing of the Third Floor is referred to by all as the Medical Wing. It’s a super-tech clinic devoted to healing injured/sick team members and researching issues pertaining to superhumans and medicine. It includes a staff of two full-time doctors (Roger Tisovec, a world-renowned authority on the effects of diseases on superhumans, and Georgi Temenkov, a top-notch surgeon), three nurses, and various support personnel. They spend most of their time on various research projects, but are ready to treat injuries or even perform major surgery at a moment’s notice.

THE FOURTH FLOOR

The Fourth Floor contains several features of note.

The first and most important is “the Gauntlet,” the team’s training room in the East Wing. Using a combination of mechanical implements, robotics, and limited hard-light holography, it can create all sorts of tactical simulations so the Squadron can practice their tactics, find new and creative ways to use their powers, and gauge the effectiveness of various threats. Training room sessions are mostly run by Digivak, but one of the team’s strictest rules is that no one can use the Gauntlet for a tactical simulation unless there’s someone present in the control room to oversee the exercise. (It would be all right to use it for non-simulation purposes that aren’t dangerous, such as creating an obstacle course for a flying hero.)

The South Wing contains the Squadron’s scientific research facilities. Compared to some superteams the Squadron doesn’t have an elaborate scientific set-up (partly because the current roster doesn’t include a dedicated gadgeteer or super-scientist), but it’s still a highly advanced facility where experimenters perform cutting-edge research.

The West Wing has quarters for guests. These are relatively spartan; more honored guests, or those needing special accommodations, are sometimes housed on the Sixth Floor instead.

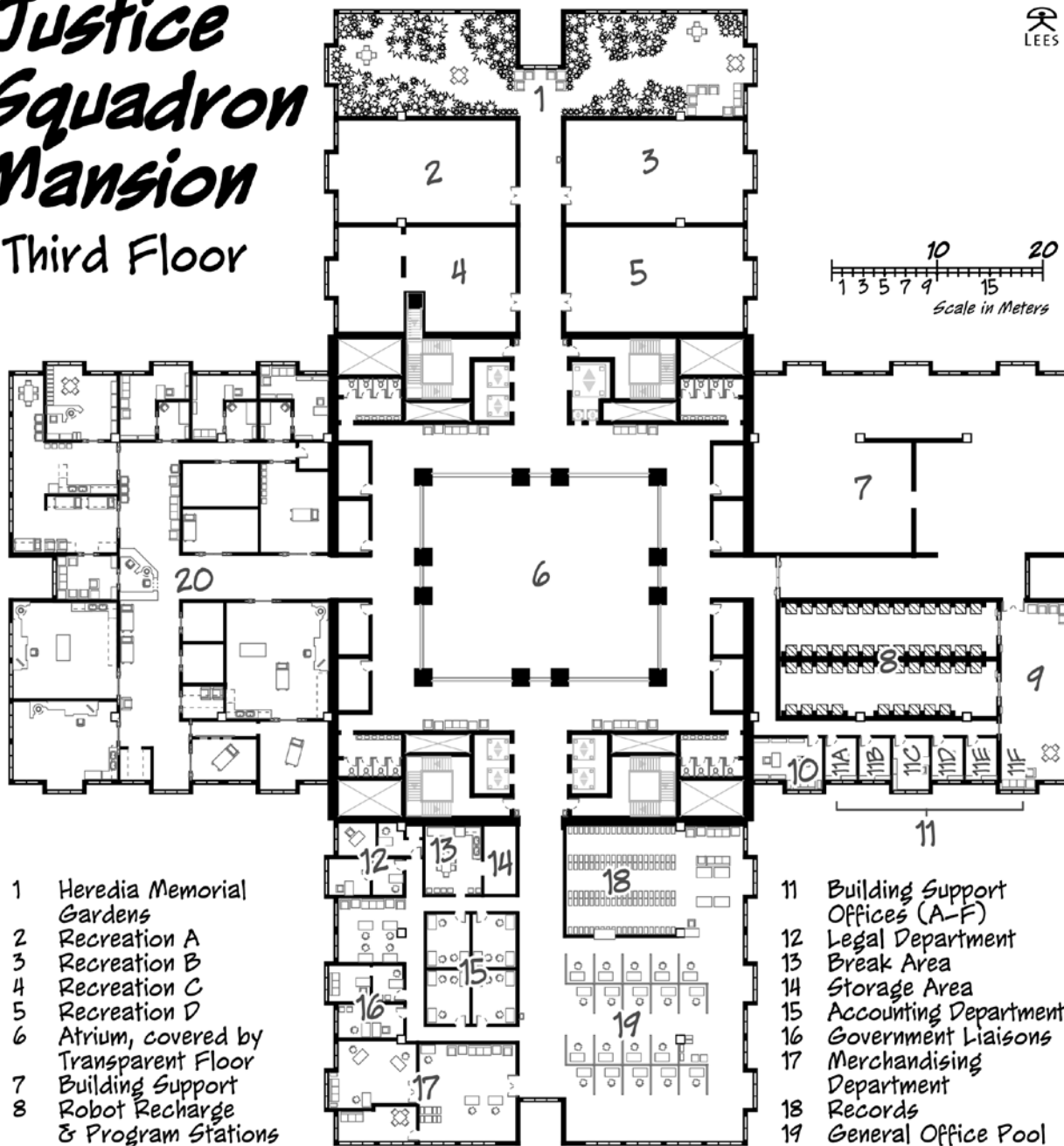
The team’s library is located in the North Wing. Technically the full library — all the books and other physical media — are kept in one of the adjunct buildings nearby. This room was once known as the Library Annex, but with the advent of electronic data storage and searching it was upgraded to full library status. If someone needs an actual book a robot is sent to get it.

The North Wing also includes the Secure Storage room and the Artifact Storage room, both requiring keycard/voice access. These reinforced rooms are where the Squadron keeps any items it finds that are too dangerous for display in the Museum or putting in general storage. The Drifter has even cast spells over these rooms to secure them against mystic and supernatural threats.



Justice Squadron Mansion

Third Floor

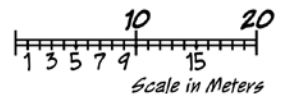
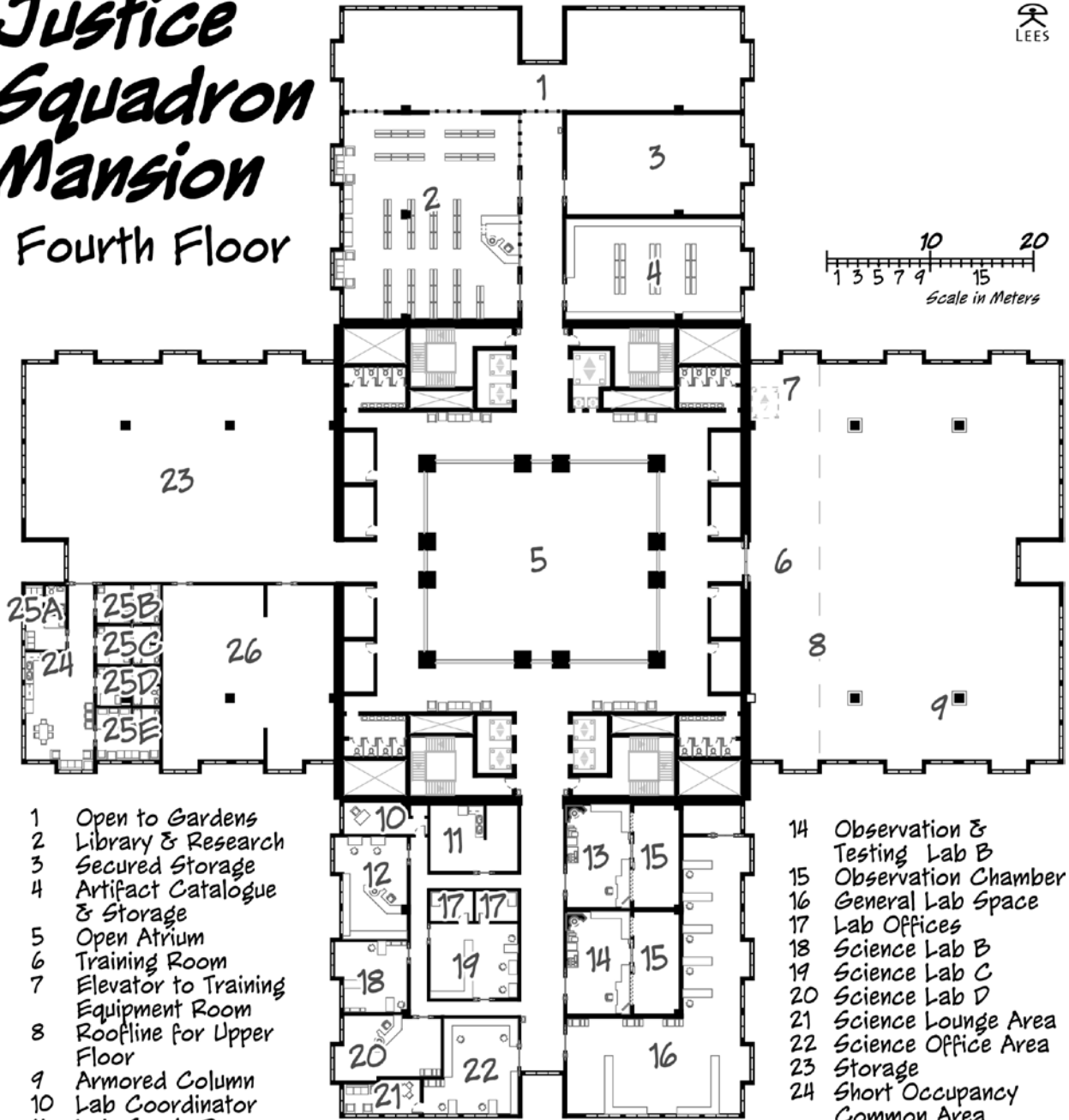


- 1 Heredia Memorial Gardens
- 2 Recreation A
- 3 Recreation B
- 4 Recreation C
- 5 Recreation D
- 6 Atrium, covered by Transparent Floor
- 7 Building Support
- 8 Robot Recharge & Program Stations
- 9 Robot Design Shop
- 10 Team Architect

- 11 Building Support Offices (A-F)
- 12 Legal Department
- 13 Break Area
- 14 Storage Area
- 15 Accounting Department
- 16 Government Liaisons
- 17 Merchandising Department
- 18 Records
- 19 General Office Pool
- 20 Medical Wing (see separate map)

Justice Squadron Mansion

Fourth Floor



- 1 Open to Gardens
- 2 Library & Research
- 3 Secured Storage
- 4 Artifact Catalogue & Storage
- 5 Open Atrium
- 6 Training Room
- 7 Elevator to Training
- 8 Roofline for Upper Floor
- 9 Armored Column
- 10 Lab Coordinator
- 11 Lab Supply Room
- 12 Science Lab A
- 13 Observation & Testing Lab A

- 14 Observation & Testing Lab B
- 15 Observation Chamber
- 16 General Lab Space
- 17 Lab Offices
- 18 Science Lab B
- 19 Science Lab C
- 20 Science Lab D
- 21 Science Lounge Area
- 22 Science Office Area
- 23 Storage
- 24 Short Occupancy Common Area
- 25 Short Occupancy Quarters
- 26 Under Renovation

THE FIFTH FLOOR

The Fifth Floor is split up among a variety of functions. In the North Wing are the team's workrooms and machine shops. The most famous of these is the Tailoring workshop where a team of seamstresses and materials engineers led by Ella Paleri create costumes for superheroes (not just the Squadron; they let other heroes in good standing get costumes here). They work with regular cloths, armored materials, and many other substances, and are constantly experimenting to discover new ways to garb and protect the guardians of the world.

The South Wing primarily contains security-related facilities. In addition to the offices of security personnel and the arsenal, it includes five cells (one oversized) equipped with power suppression technology based on the type used in Stronghold. The Squadron isn't licensed to hold prisoners long-term, but is permitted to hold them for short periods at the request of appropriate officials (typically pending a trial or a transfer to Stronghold).

The West Wing is in some ways the "nerve center" of the Mansion. Typically only team members go in here; aside from performing basic functions like cleaning or computer maintenance, even long-term staff doesn't enter this part of the building. The central part of the wing includes the team's Conference Room (which features a C-shaped table able to seat twelve, a holo-display unit in the center, and a wall-sized viewscreen on the western wall), the Monitoring Room (where at least one team member is on duty at all times monitoring for crises around the world that the team needs to respond to), and the Computer Room (which contains the servers and other hardware for Digivak). Around the perimeter of the wing is the team's private trophy room, where it puts objects with such value, so much sentimental meaning, or in some cases such danger that the team's not willing to put them on public display in the Museum downstairs. The wing also features a private Memorial Hall to the fallen members of the team.

THE SIXTH AND SEVENTH FLOORS AND THE ROOF

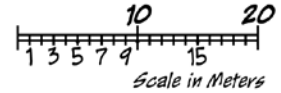
The Sixth Floor of the Mansion is the residential level. All team members have a room here, and all the rooms are at least as lavish as those in a luxury hotel (if not moreso). The rooms not used by Squadron members are mostly reserved for superhuman guests, but some are permanently occupied by high-ranking, valued staff members. The team can re-arrange or adapt some rooms to superhumans with special needs.

The Seventh Floor (not depicted on a map) is basically one large room — a hangar for the Squadron's fleet of three Ultrajets, high-speed flying craft capable of taking the team anywhere in the world or even into outer space. Robot mechanics keep the Ultrajets in tip-top condition at all times. All four walls can fold down to allow a craft (or flying hero) to take off in, or land from, any direction.

The roof of the Mansion was an open air café-style restaurant back in the hotel days, and the Squadron decided to preserve it in more or less the same condition. Now it's a sort of rooftop garden/café where the team and Mansion personnel can eat meals, take a relaxing stroll, or watch the sunset without worrying about visitors or fans disrupting the moment.

Justice Squadron Mansion

Fifth Floor



- 1 Tailoring & Flexible Materials Workshop
- 2 Design Office (aka the Nerd Pen)
- 3 Workrooms
- 4 Workshop
- 5 Clean Room
- 6 Parts Testing & Inventory
- 7 Design Lounge
- 8 Machinshop A
- 9 Machinshop B
- 10 Open Floor Atrium
- 11 Training Room Command
- 12 Training Equipment Room
- 13 Threat Adjustment
- 14 Training Room High Bay
- 15 Counselling Room
- 16 Psychology Office & Consultation
- 17 Psychology Lobby

- 18 Lounge
- 19 Supply Room
- 20 Observation Room
- 21 Interrogation Room
- 22 Security Bullpen
- 23 Security Officers
- 24 Arsenal
- 25 Security Lounge & Training Room
- 26 Chief's Office
- 27 Detention Area
- 28 Detention Cells
- 29 The Tank
- 30 Power Suppression Systems
- 31 Team Coordination & Scheduling Office
- 32 Team Office Manager
- 33 Team Offices (A-F)
- 34 Team Conference Room*
- 35 Monitoring Room*
- 36 Memorial Hall*
- 37 Computer Room*
- 38 Team Trophy Room*

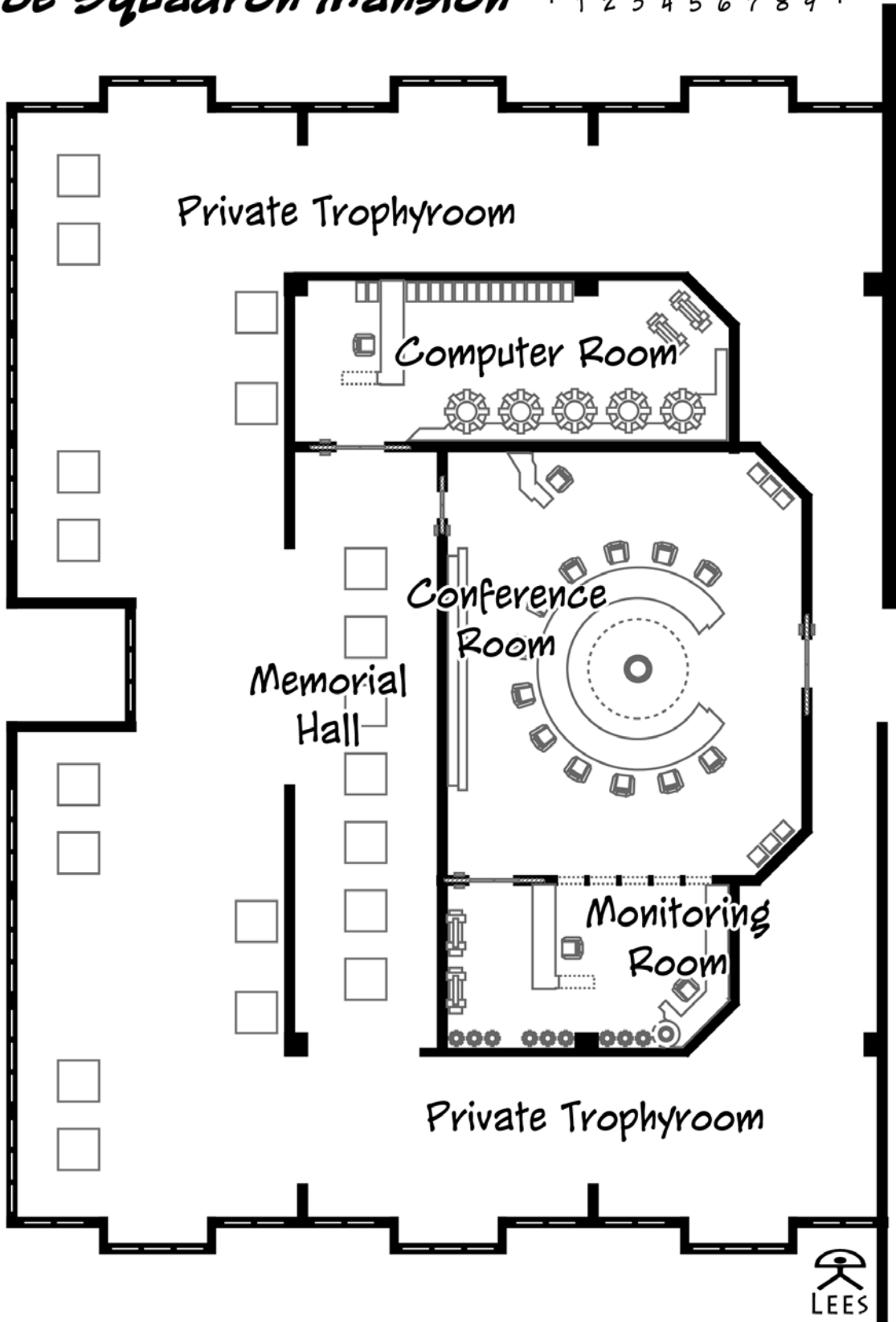
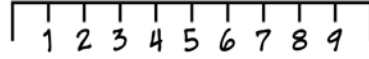
* See Separate Map

Team Meeting Wing

West Wing, 5th Floor

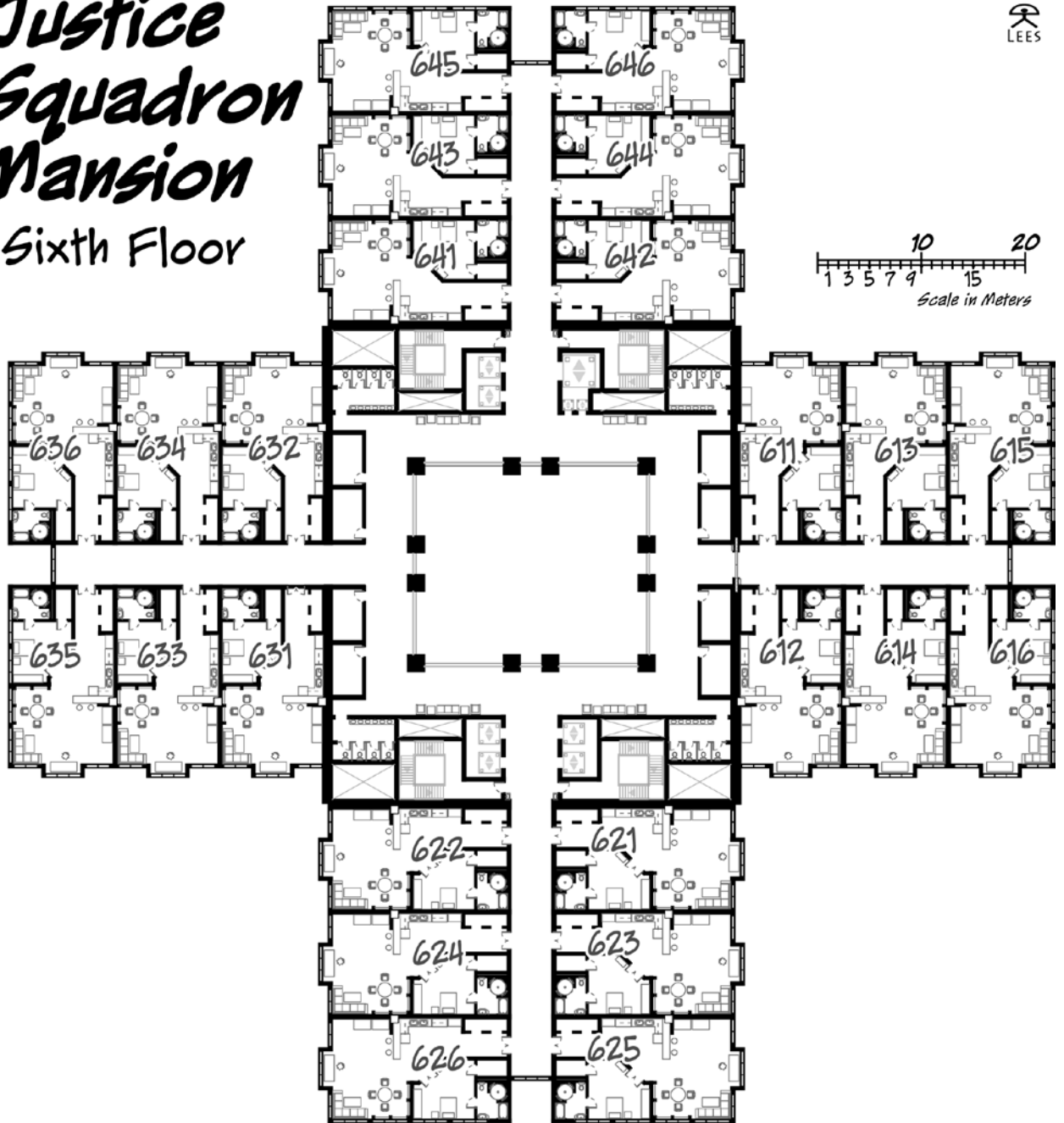
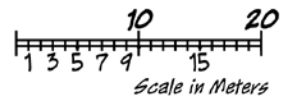
Justice Squadron Mansion

Scale in meters



Justice Squadron Mansion

Sixth Floor



MYSTIC MANSION

Val	Char	Cost	Notes	END
5	Size	25	25 x 12.5 x 12.5 meters; OCV+ 7	
8	PD	9		
8	ED	9		
8	BODY	6	Total Characteristics Cost: 49	
Cost Powers				
0	Location:	City		
Operations Systems				
3	Mystic Self-Healing Ability:	Healing BODY 1d6 (standard effect: 1 BODY)		0
		Reduced Endurance (0 END; +½); Extra Time (1 Day; -4), Self Only (-½)		
21	Ocularum Orientalis:	Clairsentience (Sight and Hearing Groups)		5
		MegaScale (anywhere on Earth; +2), Reduced Endurance (½ END paid by user; +¼); OAF Bulky (-1½), Concentration (½ DCV throughout use; -½), Extra Time (takes a minimum of 1 Minute to activate and use, even longer for distances over 100 miles away; -1½)		
15	Library:	KS: Arcane And Occult Lore 24-		
9	Library:	KS: Demonology 18-		
11	Library:	KS: Famous Wizards 20-		
11	Library:	KS: World History 20-		
20	Summoning Circle:	Change Environment (create an area summoned beings cannot exit), -1 to EGO Rolls		0
		Area Of Effect (2m Radius; +¼), Reduced Endurance (0 END; +½), Persistent (+¼)		
2	Sanctum Sanctorium Walls/Doors:	+2 PD and +2 ED		0
		Partial Coverage (-2)		
6	Mystic Basement Walls/Doors:	+4 PD and +4 ED		0
		Partial Coverage (-1)		
5	Mystic Basement Walls/Doors:	Power Defense (10 points)		0
		Partial Coverage (-1)		
44	Mystic Basement Spells Of Locking:	Change Environment, -3 to Lockpicking		0
		Long-Lasting (permanent), Reduced Endurance (0 END; +½), Persistent (+¼)		
Personnel Systems				
3	Cable TV And Phone:	HRRP		0
		OAF (-1), Affected As Sight And Hearing Group As Well As Radio Group (-½), Television Reception And Phone Only (-1)		
10	High-Speed Internet Access:	KS: Everything 30-		0
		OAF (computer terminal; -1)		
Total Abilities & Equipment Cost: 160				
Total Base Cost: 209				
Value Complications				
15	Social Complication:	Public Identity (Frequently, Major)		
Total Complication Points: 15				
Total Cost: 209/5 = 42				

MYSTIC MANSION

Description: The Mystic Mansion is an urban residence suitable for a character with mystic or wizardly powers — such as a super-mage in a Champions campaign, or a well-off mage in a High Urban Fantasy game. With slight adjustments it could easily be toned down for settings with lower levels or different types of magic.

The Mansion has a Public Identity because it's assumed that the owner is known to be a mystic, and thus to attract enemies, people in need of help, potential apprentices, and the like. If that's not the case, just remove the Complication.

Although it is a building, the Mystic Mansion is in some respects also a mystical entity. It has the ability to "heal" any damage it sustains slowly over time, and is it least dimly aware of what's going on within its walls (though it can't affect the occupants in any way, except perhaps to impinge vague emotions on their minds to express its displeasure or fear).

The floors throughout the ground and upper floor are finely-polished wood, sometimes covered with beautifully-woven carpets and rugs. The floors in the basement are stone. The walls throughout the Mansion have been strengthened and reinforced with magic, making them far sturdier than ordinary walls.

Ground Floor

1. FOYER HALL

The main entrance into the Mansion is through a set of double wooden doors. The doors have large panes of glass in them that show a design in what seems to be a sort of Oriental style, but which on close inspection isn't readily identifiable as coming from any major human culture. They lead into an elegantly-appointed foyer decorated in elegant style described by one of the owner's friends as "Arts and Crafts filtered through a sort of Crowleyan lens." Most people find the look intriguing, but to some it's a touch disturbing.

2-3. SITTING ROOM

Visitors to the Mansion who come to seek the owner's advice or aid usually have to wait here for a few minutes before he can see them. The room is mostly decorated in a modern style, but with wood, leather, and glass emphasized over plastic and other technologically-produced materials. There is, however, a television, along with a small selection of books, in case a visitor has to wait a long time. In cold weather the room's partly heated by a fireplace; those who stare too deeply into the flames sometimes claim to see them shape imp-like beings for a split-second here and there.

5. GREAT ROOM

When the Mansion's owner entertains or needs to meet with large groups of people, the Great Room is typically the room he uses. It's



simply decorated with burgundy wallpaper and lit with electric chandeliers (and light that comes in through the bay windows, in the daytime). If necessary, the owner can use it to perform rituals requiring large amounts of space.

6-10. ROTUNDA AND STAIRS

The only means of moving between the Mansion's two aboveground floors is a set of matched circular stairwells that run through a central rotunda. Above the rotunda the roof of the Mansion forms a dome, the interior of which is painted with scenes from Greek mythology.

11-13. KITCHEN AND DINING ROOM

The Mansion comes equipped with a large, well-furnished and -stocked kitchen where the cook and other servants prepare meals for the owner and staff. The dining room has a rectangular table

large enough to seat eight people comfortably, or ten in crowded conditions.

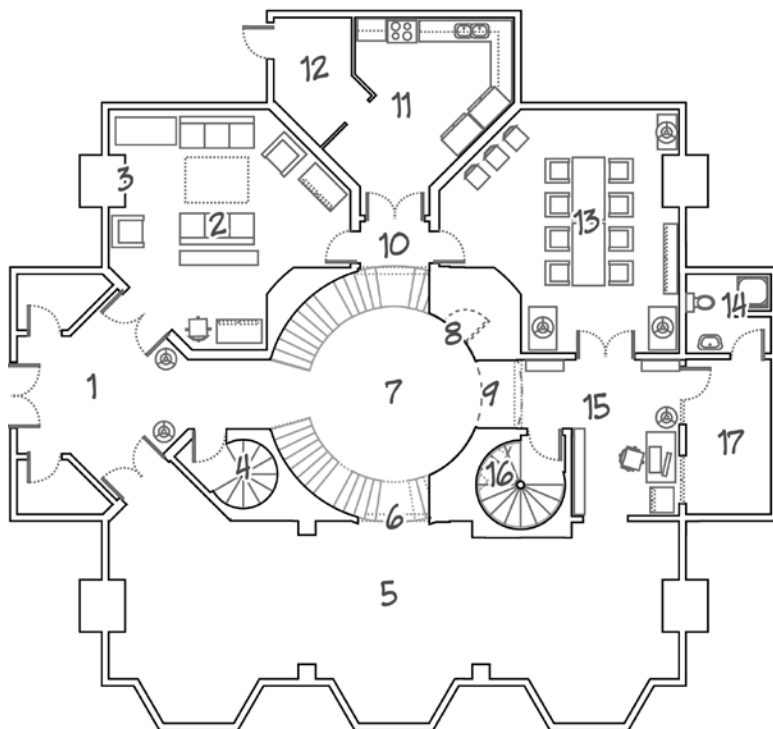
15. DOWNSTAIRS STUDY/LIBRARY

This room is a study and minor library mostly devoted to mundane work, such as keeping track of house accounts, answering correspondence, and the like. The books on the shelves lining the walls are mostly on mundane topics, such as history and art, though there are some harmless books on matters arcane. (The serious and dangerous mystic tomes are kept in the Sanctum Sanctorium upstairs.)

17. SOLARIUM

This room, well-lit by the sun in the morning, is a favorite retreat of the owner's when he wishes to relax. It's also where he holds informal meetings, or sits around having conversations with friends.

Mystic Mansion Ground Floor

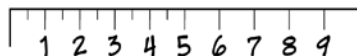


Key:

- | | |
|--|--|
| 1 Foyer Hall | 9 Balcony Line
(Second Floor) |
| 2 Sitting Room | 10 Service Vestibule |
| 3 Fireplace (typ) | 11 Kitchen |
| 4 Spiral Stair to Basement
(Mundane Area) | 12 Walk-out Pantry |
| 5 Great Room | 13 Formal Dining Room |
| 6 Side Passages
(8 foot clear) | 14 Restroom |
| 7 Rotunda w/Stairwell | 15 Downstairs Study/Library |
| 8 Rotunda Closets
(Under Stair) | 16 Spiral Stairwell to Basement
(Mystic Area) |
| | 17 Solarium |

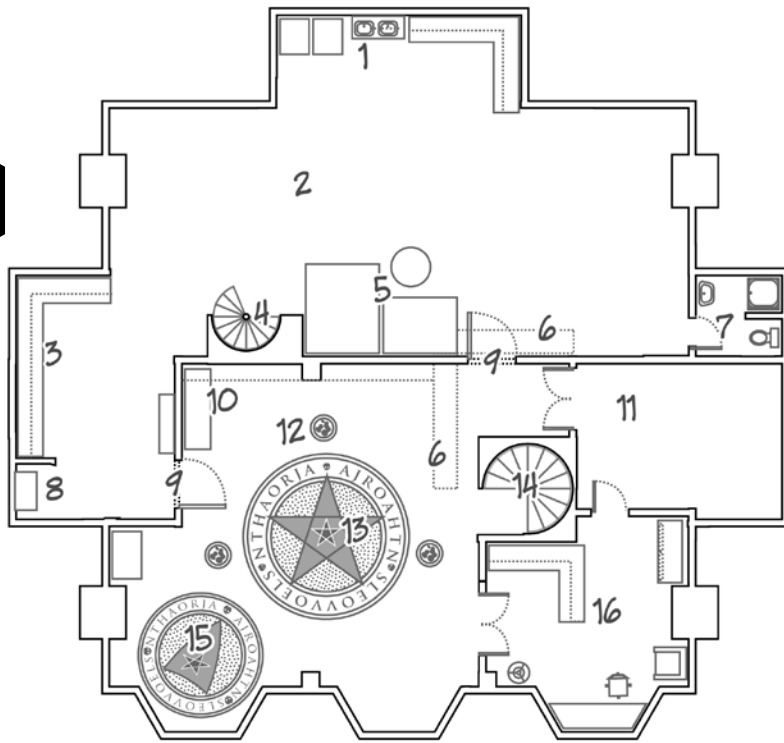


Scale in meters



Mystic Mansion

Basement



Key:

- | | | | |
|---|-----------------------------|----|--------------------------------------|
| 1 | Laundry Area | 9 | Secret Door |
| 2 | Open Space | 10 | Mystic Supply Area (Table, Cabinets) |
| 3 | Workbench/Tools | 11 | Mystic Vault |
| 4 | Spiral Stairs to Front Hall | 12 | Braziers |
| 5 | Heating, Ac, Water Heater | 13 | Summoning Circle |
| 6 | Overhead Ducts | 14 | Spiral Stairs to Back Hall |
| 7 | Restroom | 15 | Warding Circle |
| 8 | Electrical-Box | 16 | Mystic Workshop |



Upper Floor

For the most part, the Upper Floor of the mansion is residential, with quarters for the owner, his guests, and his house-servants. It's elegant, even opulent, with thick carpeting on most floors, heavy doors, hand-made wood furniture, and plenty of tasteful decor.

The main room of note on this level is #10, the Sanctum Sanctorium. This is the owner's private mystical "workroom." Its doors and walls have been further enchanted to make them even tougher than the ones in the rest of the house. The room includes an extensive library on arcane and occult lore, some minor (non-dangerous) magical items kept in sturdy locked containers, and the *Occularum Orientalis*.

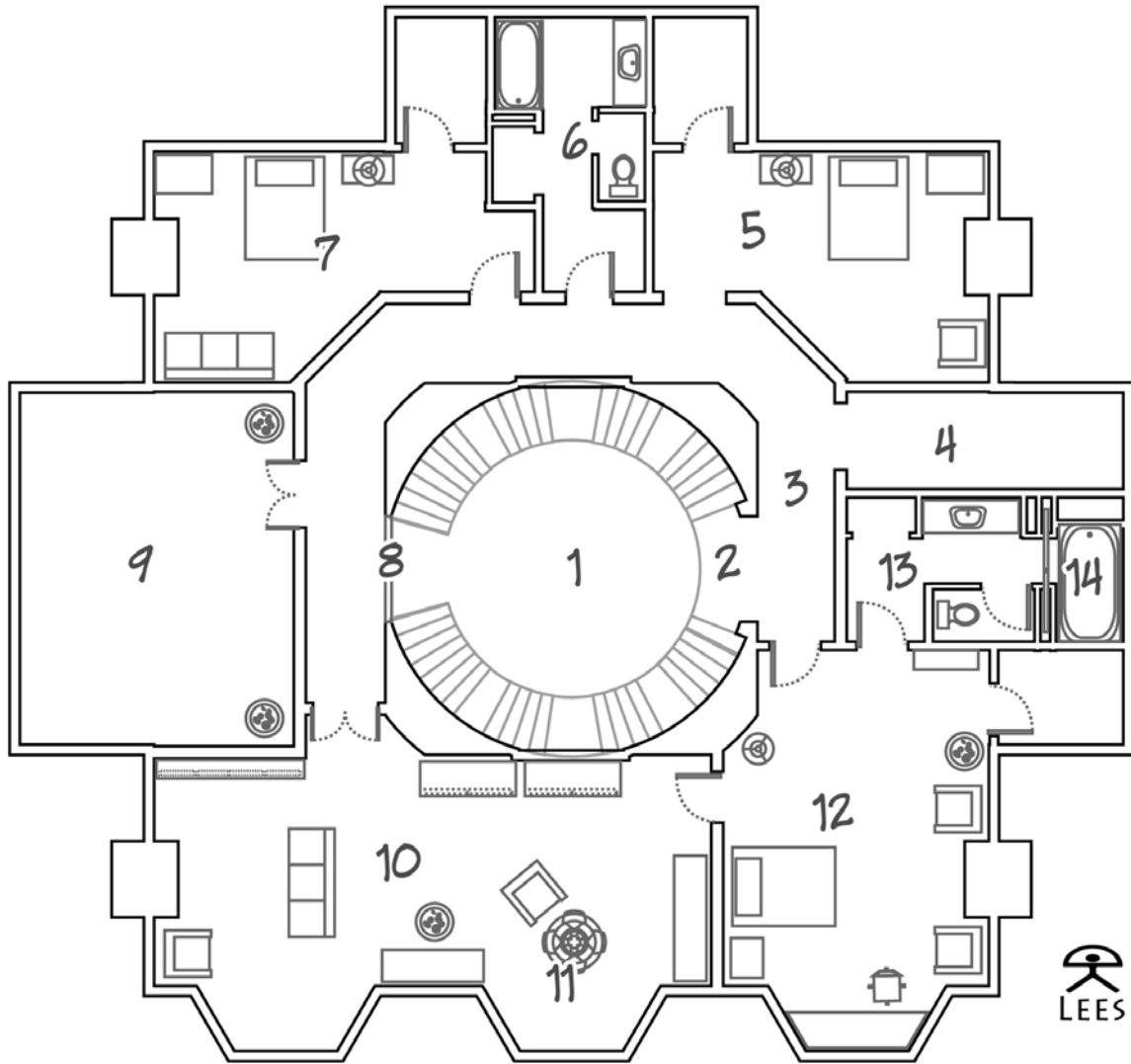
The Occularum is a large crystal orb on an elaborately carved wooden stand; the whole thing is about the size of an endtable. Floating in the center of the orb is a strange reddish-yellow eye that some people describe as feline, others reptilian, and still others as a mix between the two. As people move around the Sanctum, the eye turns to keep watch on them in a disturbing fashion, much like (in one visitor's words) "a dragon sizing you up for a meal." In the hands of a skilled user (such as the Mansion's owner), the Occularum is a powerful mystical item that allows him to view and hear events anywhere in the world. However, using the Occularum tends to tire even an experienced mystic out (the listed END cost is paid by the user, not by the Base).

Basement Of The Sorcerer

The basement of the Mystic Mansion is perhaps the most dangerous part of the house. It can be reached by several small stairways. The northern half of it is essentially mundane, with a laundry room, worktable and tools, the heating/ventilating/air conditioning equipment for the house, and so on.

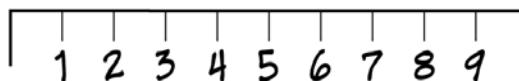
The southern half is distinctly different, and any doorways leading into it (or to stairways that access it) are mystically reinforced and locked to make it difficult for anyone to get in without the owner's permission. This is where the owner keeps his most valuable (or dangerous) grimoires and mystic tomes, where he performs conjurations and other major rituals, and where he keeps corrupting or perilous enchanted items in a special vault.

Mystic Mansion Upper Floor



- Key:**
- | | | | |
|---|-----------------------|----|-----------------------|
| 1 | Open to Rotunda Below | 8 | Overlook w/ Bannister |
| 2 | Upper Floor Balcony | 9 | Multipurpose Room |
| 3 | Inner Corridor | 10 | Sanctum Sanctorium |
| 4 | Walk-in Linen Closet | 11 | Ocularum Orientalis |
| 5 | Servant's Room | 12 | Master's Bedroom |
| 6 | Guest Bath | 13 | Master's Bath |
| 7 | Guest Room | 14 | Sauna/Bath |

Scale in meters

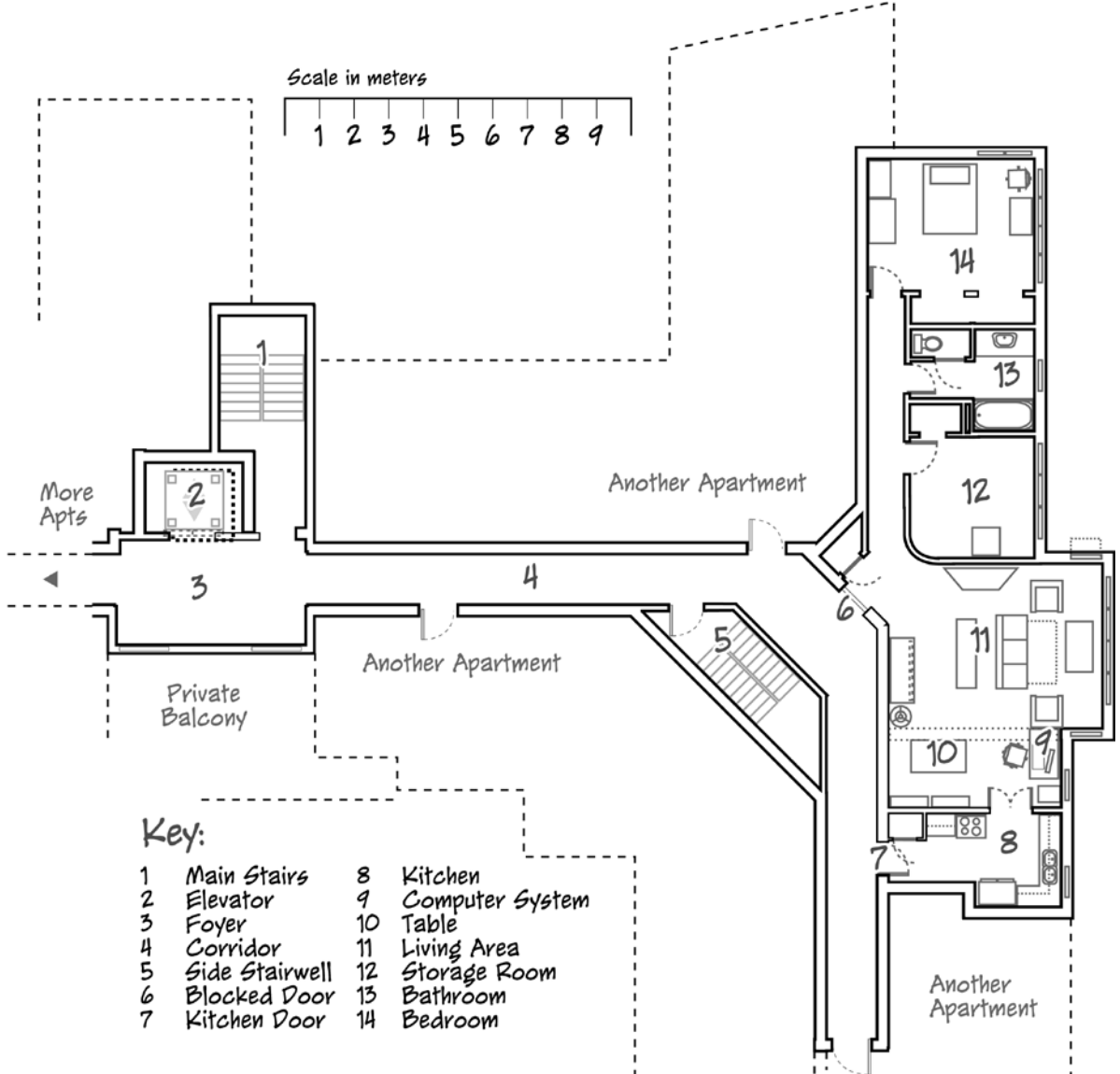


SAFEHOUSE

Val	Char	Cost	Notes
3	Size	15	16 x 8 x 8 meters; OCV+ 6
8	PD	9	
8	ED	9	
5	BODY	3	Total Characteristics Cost: 36

Cost	Powers	END
0	Location: City	
16	High-Security Locks: Change Environment, -3 to Lockpicking Reduced Endurance (0 END; +½), Persistent (+¼)	0
3	Pirated Cable TV And Phone: HRRP OAF (-1), Affected As Sight And Hearing Group As Well As Radio Group (-½), Television Reception And Phone Only (-1)	0

10	Pirated High-Speed Internet Access: KS: Everything 30- OAF (computer terminal; -1)	0
13	Looks Like An Ordinary Apartment: Disguise 14-	0
6	Arsenal/Workroom: Weaponsmith (Firearms) 11-	
Total Abilities & Equipment Cost: 48		
Total Base Cost: 84		
Value Complications		
0	None	
Total Complications Points: 0		
Total Cost: 84/5 = 17		



The Safehouse



SAFEHOUSE

Description: This Base is a “safehouse” — a hideout prepared in advance by a Dark Champions character (such as a vigilante or spy) in case things get rough and he needs to lay low for awhile. To external appearances, and even to casual internal inspection, it looks like an ordinary two-bedroom apartment.

Closer inspection or investigation reveals the truth of the matter. The apartment has two access points (#6 and #7 on the map), but one of the doors (#6) has been altered so that it only opens outward; no one can get in that way. The walls have been opened up and had sheet metal and heavy lumber inserted in them to make them much more bullet-resistant. Similarly, the window glass has been replaced with low-strength bullet-proof glass (with a tiny sonic device beneath each one that can shatter it instantly if the occupant needs to make a quick escape by diving out). It has cable TV, phone, and Internet access, though there are no records of them having actually been hooked up (the same goes for power, water, and other utilities). The rent’s paid two years in advance in cash.

Even the objects and items in the apartment are designed with security in mind. Most of the furniture has sheet metal attached to the bottom so it can be tipped over to form a bullet-resistant barrier. Lamps and similar objects are placed so that there’s usually at least one within reach for throwing. And there are loaded handguns concealed at a dozen different places around the apartment so the occupant is never truly “unarmed.”

Room #12 on the map is an armory and storage room. It’s filled with all sorts of weapons, tools, and supplies that a Dark Champions character on the run might need, including a small workbench.

Despite all the work and expense that went into this place, the owner’s ready to abandon it in a heartbeat if necessary. The true security it offers is secrecy; no one knows about it or that he’s there. Once the secret’s blown, it becomes valueless... which means it’s time to set up a new safehouse somewhere else.

STROMGUARD

Description: Wolfgang Hellstrom was born in Europe — no one’s quite sure where, and his so-called autobiography is vague on the subject — in 1930. After living through the chaos and destruction of World War II, Hellstrom decided that he would never permit himself to suffer that way ever again. Some order was needed in the world, and if the world didn’t order itself on its own, he’d find a way to impose order.

After graduating with top honors in science, he founded Hellstrom Industries. By the Eighties Hellstrom Industries had become one of the biggest, most successful companies in the world, and Hellstrom himself one of the four or five richest people on the planet. And his megalomania had grown along with his fortune. He decided that since disorder was still rife, it was time to bring the world under his thumb and make it behave.

Using his vast personal and professional resources, Dr. Hellstrom acquired an island for his own private use. On one end of the island he built a luxury villa where he could vacation; on the other end he established the Chattsworth Marine Research Facility, a top-notch institute dedicated to researching marine biology, oceanography, and related fields.

Or so the world believes. The truth is far different, and far deadlier. Stromguard, as Dr. Hellstrom calls the island, isn’t just a home away from home; it’s the secret headquarters from which he plans to launch his scheme of world conquest. From the rubble of the former Soviet Union he used his money and contacts to acquire all sorts of equipment and weapons, including two ICBMs that he’s outfitted with nuclear-tipped warheads. He intends a two-pronged attack. First, he’ll use his corps of hackers and computer experts to disrupt the world’s data networks and cripple his foes. Then he’ll use his weapons (and his not-inconsiderable behind-the-scenes influence, which he’s been building for decades) to force the world to acquiesce to his demands. Once he’s in control of Earth, he’ll re-order things to suit his vision of a perfect world.

So far the world remains mostly unaware of Dr. Hellstrom’s evil scheme. Several major intelligence agencies have files on him, and consider some of his activities questionable, but none of them have gathered all the pieces of the puzzle or assembled them to reveal the horrifying picture. He and his Base aren’t Hunted... yet... but it’s only a matter of time.



STROMGUARD

Val Char Cost Notes

21	Size	42	4 x 2 x 2 km; OCV+ 18
3	PD	0	
3	ED	3	
3	BODY	1	Total Characteristics Cost: 46

Cost Powers

15 **Location:** Distant, Deep Wilderness

Power Systems

11 **Generator:** Endurance Reserve (100 END, 20 REC) 0
OIF Immobile (-1½)

5 **Backup Generator:** Endurance Reserve (40 END, 10 REC); 0
OIF Immobile (-1½)

Tactical Systems

22 **Killzone Flamethrowers:** RKA 3d6 [10]
Area Of Effect (5m Radius; +½); IAF Immobile (-1½), Limited Range (just into the killzone chamber; -¼), 10 Charges (-¼)

4 **Reinforced/Fortified Walls/Doors:** +3 BODY, +3 PD, +3 ED 0
Partial Coverage (-2)

9 **Blast Doors:** +3 BODY, +4 PD, +12 ED 0
Partial Coverage (-2)

15 **Blast Doors:** four more Blast Doors (total of 5) 0

2 **Research Facility Chain-Link Fence:** +2 PD and +2 ED 0
Partial Coverage (-2)

135 **Fence Electrification:** RKA 2d6 6
Area Of Effect (Surface 600 m long by 4m high; +2¾), Constant (+½), Reduced Endurance (½ END; +¼)

17 **Looks Like A Resort/Research Facility:** Disguise 16-

17 **Hidden Facilities:** Concealment 16-

END

Operations Systems

3 **Communications Systems:** HRRP 1
OAF Immobile (-2), Affected As Sight And Hearing Group As Well As Radio Group (-½), Costs Endurance (-½)

7 **Holoprojector:** Sight Group Images, +4 to PER Rolls 3
Area Of Effect (1m Radius; +¼); OAF Immobile (-2), Set Effect (holographic images of places on Earth; -1)

41 **Holoprojector's Database:** AK: Earth 50- 4
OAF Immobile (-2), Costs Endurance (-½)

17 **Security Cameras:** Clairsentience (Sight And Hearing Groups) 6
Multiple Perception Points (up to eight at once), 16x Range (7,200m, enough to cover entire island and surrounding waters); IAF Immobile (-1½), Affected As Radio Group As Well As Sight/Hearing Groups (-¼), Fixed Perception Points (-1)

2 **Multispectrum Cameras:** Infrared Perception (Sight Group) 0
IAF Immobile (-1½)

2 **Multispectrum Cameras:** Ultraviolet Perception (Sight Group) 0
IAF Immobile (-1½)

17 **Laboratories:** Computer Programming 16-

17 **Laboratories:** Electronics 16-

17 **Laboratories:** Mechanics 16-

5 **Laboratories:** SS: Biology 14-

5 **Laboratories:** SS: Marine Biology 14-

5 **Laboratories:** SS: Oceanography 14-

5 **Laboratories:** SS: Physics 14-

20 **Laboratories:** Weaponsmith (Firearms, Missiles & Rockets, Chemical Weapons, Incendiary Weapons, Energy Weapons) 16-

10 **High-Speed Internet Access:** KS: Everything 30- 0
OAF (computer terminal; -1)

Personnel Systems

2 **Library:** KS: Everything 11-

11 **Infirmary:** Paramedics 13-

Total Abilities & Equipment Cost: 438

Total Base Cost: 484

Value Complications

10 **Hunted:** by Stromguard's enemies (Infrequently, As Pow, Capture/Destroy)

Total Complications Points: 10

Total Cost: 484/5 = 97

OTHER FEATURES

Cost Power

84 **Nuclear Missiles:** One Nuclear Missile (see Chapter Five)

5 **Nuclear Missiles:** Another Nuclear Missile (total of 2)

20 **Underground Monorail:** consider this a Vehicle with a total of Ground Movement 24m

10 **Elevators:** 10 elevators (see Chapter Five)



Geography And Layout

Stromguard is a low-lying island about 5 km long and 1.75 km wide at its widest point. Ideally it's located in the tropics and mostly covered with jungle, but you should place it wherever makes the most sense for how you intend to use Dr. Hellstrom in your campaign, and make the necessary changes. For example, if it's located in more northerly waters, it would be mostly rocky and barren instead of jungle-covered.

The center of the island is mostly unoccupied. The northern tip of the island, which faces the direction that most ships approach from, is indicated by a lighthouse (1). The waters around the northern tip are treacherous, with extensive reefs (2) that can damage many watercraft. Typically Dr. Hellstrom has a pilot who knows the proper way through the reef helicoptered out to ships to guide them in.

The main feature of the northern end of the island is Dr. Hellstrom's lavish Villa (see below), which sits on a rocky outcropping overlooking a beach and the ocean. Unbeknownst to casual visitors, a secret underground monorail system connects the Villa (and the Base Command center located beneath it) to the facilities on the southern end of the island: the Chattsworth Marine Research Facility (5), "Barracksville" (where Hellstrom's servants, employees, and soldiers live; 6), and the Airstrip (7) where visitors arriving by plane land. Since they can't be allowed to learn about the monorail, casual visitors are ferried about the island in small helicopters or ground vehicles.

Throughout the island, and even in the waters surrounding it, Dr. Hellstrom has installed dozens of carefully-concealed closed-circuit TV security cameras with IR and UV capability (he can also monitor the island via the Holographic Projector system, described below under *Base Command*). Although his security personnel can only monitor eight of them at once, they make it difficult for anyone to approach his island undetected, or to move about it covertly.

The Villa

Doctor Hellstrom's villa on the northern end of the island is the epitome of style, elegance, and luxury. Built with the best by the best, furnished with the best, and staffed with some of the best servants in his employ, it's one of his favorite destinations when he just wants to relax for awhile. In addition to all the amenities one could hope for, it features five guest suites and a dining room with a table big enough to seat a dozen comfortably.

The villa is likely to be a starting point for many groups of PCs trying to figure out what's happening on Stromguard, but if so they'll be disappointed (though they may note that the walls and doors are much sturdier than they need to be). The villa is exactly what it seems to be. The only connection it has with Hellstrom's plan for world domination is that a well-hidden (Concealment 16-) secret door in the basement leads to an underground corridor to Base Command (see below).

Below The Villa

Beginning about 20m below the villa, and reached from it by a concealed elevator, are a series of ten "sublevels," the latter three of which are a submarine dock (see blow). The center of the sublevels is what Dr. Hellstrom and his people call the "Core," where the elevators, stairwell, rest-rooms, and and some utility machines are located.

SUBLEVEL 1: BASE COMMAND

The nerve center of Dr. Hellstrom's plan to bring the world under his control is the first sublevel, Base Command (see separate map for full details on the Base Command area). There's only one way in or out, and it's staffed with at least two guards at all times and is also carefully monitored by security camera. Anyone who makes it past the entrance chamber steps into a room known as the "Killzone" (5-6). Solid metal blast doors slam shut, flamethrowers concealed in the walls activate, and a few seconds later anyone trapped in the room is reduced to nothing but ash.

Beyond the Killzone is the main Control Room (7-10). It includes the Security Panel (7) from which highly-trained guards can monitor all the security cameras, alarms, and related functions of Stromguard; the Situation Monitoring/Control Consoles that technicians use to control most of the systems on the island (including, if necessary, the missile launch systems via override), and a Holographic Projector (10) that uses programmed maps and realtime satellite links to display 3-D imagery of any place on Earth down to man-on-the-street level resolution. It can't show building interiors (unless electronic copies of blueprints, or actual images of an interior, are available to Dr. Hellstrom somehow), but it can display anything a satellite could "see."

Doctor Hellstrom and his most trusted technicians can monitor (and override) the functioning of Base Command (and anything else on the island) from the Observation Platform (12). Hellstrom also maintains a lavish private office and quarters in Base Command... just in case.

SUBLEVEL 2: INFIRMARY AND MONORAIL

The second sublevel includes two areas. The first is an infirmary and related laboratories. Doctor Hellstrom is fastidious and health-conscious (though not obsessively so) and does his best to ensure that the people in his employ get good health care. The second is the northern terminus station for the secret monorail that connects all of the island's facilities, including a depot where passengers can wait and cargo can be stored.

SUBLEVEL 3-6: LIVING ACCOMODATIONS; UTILITIES

This is where the Base's main body of employees lives, eats, and recreates. While not lavish, the accomodations are relatively comfortable; aside from occasional grumbles about the quality of the coffee Dr. Hellstrom's received few complaints.



Sublevels 4-6 containing the ventilation equipment, generators, and other utility systems necessary to keep the island's secret facilities operating smoothly and comfortably.

SUBLEVEL 7: DETENTION AREA AND LABORATORIES

Doctor Hellstrom plans for every eventuality, and that includes dealing with meddlesome interlopers and rebellious employees. He's built eight cells, each chiselled out of solid rock and barred with a metal access door (PD 8, ED 8, BODY 8). There's also a security room from which guards can monitor each of the cells, and a small "rec room" where they (and other Base Command Level personnel) can eat and relax.

Doctor Hellstrom didn't just buy his title; he holds several advanced degrees in science and engineering. He's built eight laboratories (three large, five small) into Stromguard so that he can perform research, analyze various aspects of his plans, and build the devices he needs. He often spends his leisure time here conducting purely theoretical research.

The Submarine Dock

Stromguard can bring mundane supplies in by aircraft, but much of the materiel he needs for his scheme has to be kept secret. Therefore it's brought in by submarine. When the sub arrives it docks at a concealed facility underneath the villa (it's approximately 50m below the villa). The dock is fully functional, with gantry cranes to assist in unloading and extensive storage bays. Invading PCs may be particularly interested to learn about the fuel tanks (9). Either one is large enough that if the heroes could make it explode, it would destroy half of the dock and dump enough rubble in the water to make it dangerous for a sub to leave or land.

Research Facility And Launch Control

Although Base Command (see below) is really the heart of Dr. Hellstrom's plan, in the event that the world refuses his offer and he has to use his nuclear missiles he needs a launch center for them. That center, along with the two missiles he currently has, is located beneath the Chattsworth Marine Research Facility.

Chattsworth (or "CMRF," as it's often referred to in documentation) is a legitimate research institute. Most of the scientists and technicians working there know nothing about Dr. Hellstrom's true work; they think he's merely an ultra-rich benevolent man with an interest in matters oceanographic. Only the two scientists in charge of the facility, Dr. Karen Withers and Dr. Mason Snodgrass, know what's really going on.

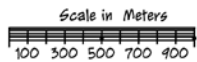
On the surface everything about the CMRF seems normal... though PCs' suspicions may be aroused by the high-voltage electric fence (2), the security shack and double gate (6-7), the unusual amount (and size) of ventilation equipment (8), and the "Secure Hybrid Hatchery" (9) that no visitor is allowed to enter. (It's actually a support building for the Launch Control Center beneath it.)

Launch Control is a relatively small and simple underground facility designed for one thing only: to monitor, and if necessary launch, two intercontinental nuclear missiles. The missiles themselves are stored in underground silos whose outlets are disguised as ventilation equipment (in area 8 of the CMRF map). It includes electronics and mechanical workshops, storage, some areas for personnel to sleep and relax during long shifts, and most importantly the main control consoles for the missiles. Doctor Hellstrom can override and launch from Base Command if necessary, but the whole process goes more smoothly if controlled from here. Preparing and launching a missile takes approximately one hour minimum, and if possible the crew would prefer to have at least three hours.

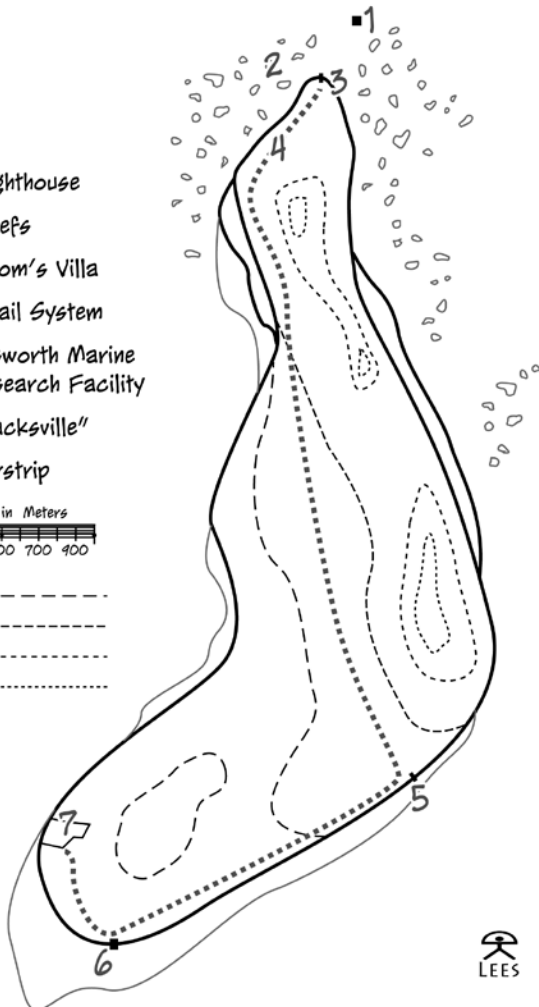


Hellstrom's Island

- 1 The Lighthouse
- 2 The Reefs
- 3 Hellstrom's Villa
- 4 Monorail System
- 5 Chattsworth Marine Research Facility
- 6 "Barracksville"
- 7 The Airstrip

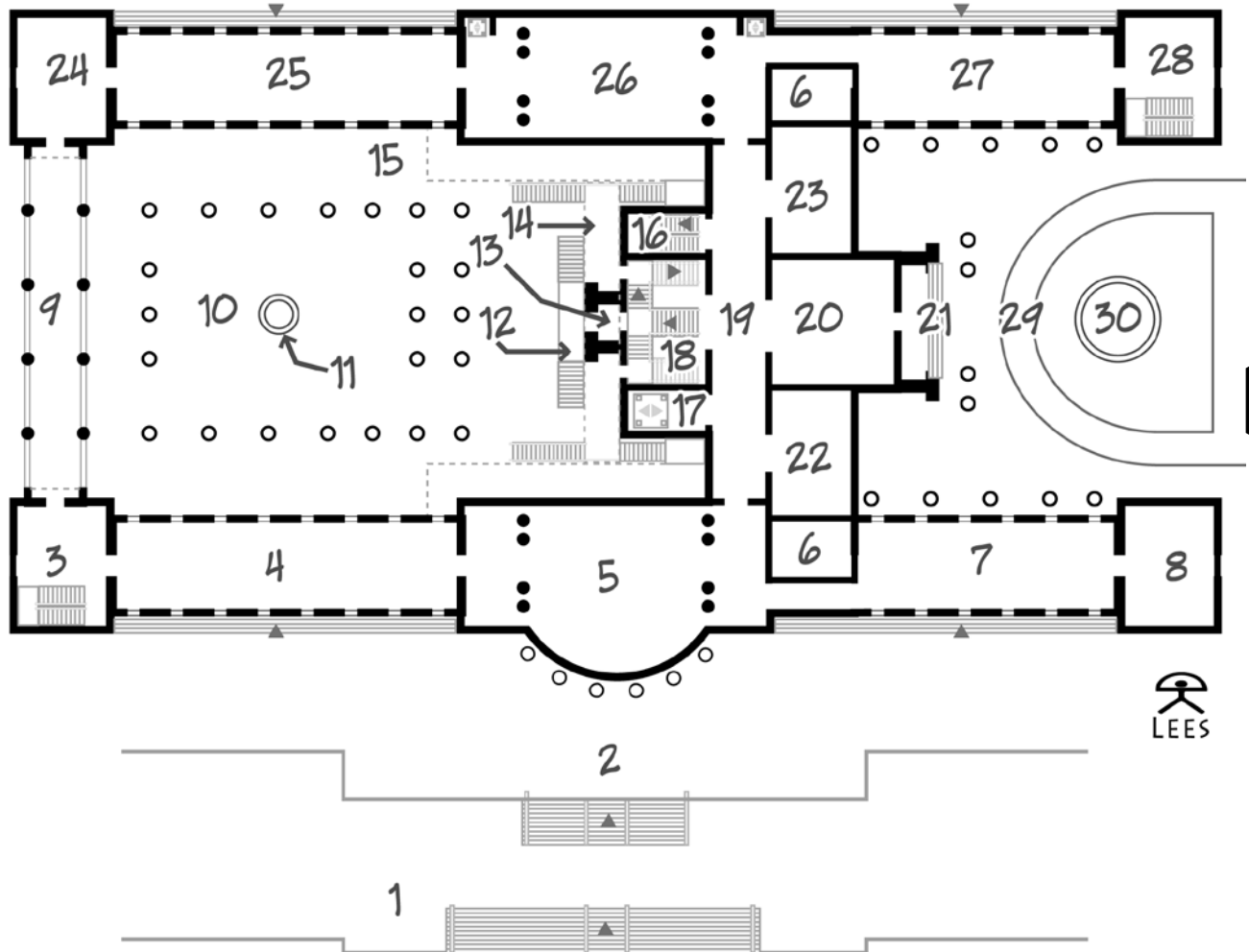


- +25m - - - - -
- +50m - - - - -
- +75m - - - - -
- +100m - - - - -



Stromguard Villa

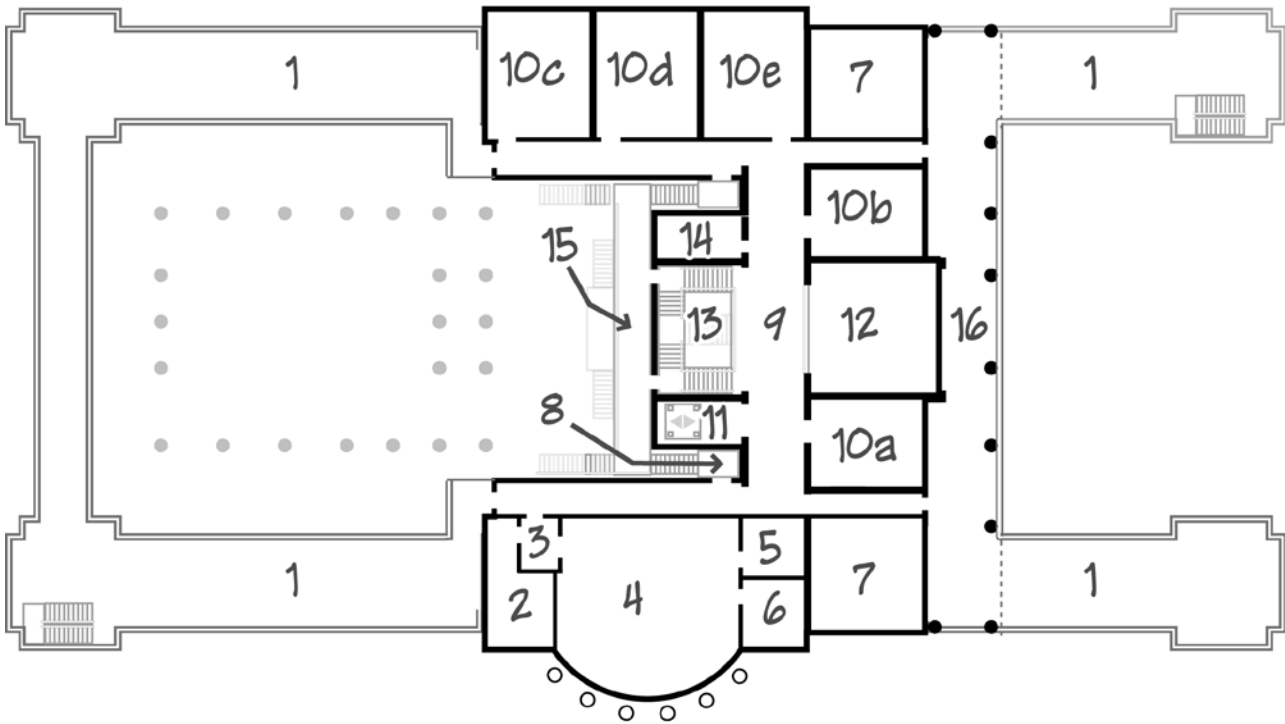
Ground Level



- | | | | | | |
|----|--|----|---|----|--------------------|
| 1 | First Terrace
(2m below grounds) | 11 | Courtyard Fountain | 19 | Main Corridor |
| 2 | Second Terrace | 12 | Cellar Landing
(2.5 m below the grounds) | 20 | Hall |
| 3 | Western Stair (up) | 13 | Cellar Porch
(2.5m below the grounds) | 21 | Porch |
| 4 | Conservatory | 14 | Mezzanine Overlook
(2.5m over grounds) | 22 | Drawing Room |
| 5 | Salon | 15 | Outline of upper terrace
(5m over grounds) | 23 | Parlor |
| 6 | Restroom | 16 | Stairwell to Basement | 24 | Study |
| 7 | Gallery | 17 | Elevator | 25 | Library |
| 8 | Billiard Room | 18 | Main Stairwell to Upper Floor | 26 | Dining Room |
| 9 | Loggia | | | 27 | Drawing Chamber |
| 10 | Inner Courtyard
w/ freestanding pillars | | | 28 | Eastern Stair (up) |
| | | | | 29 | Driveway |
| | | | | 30 | Front Fountain |

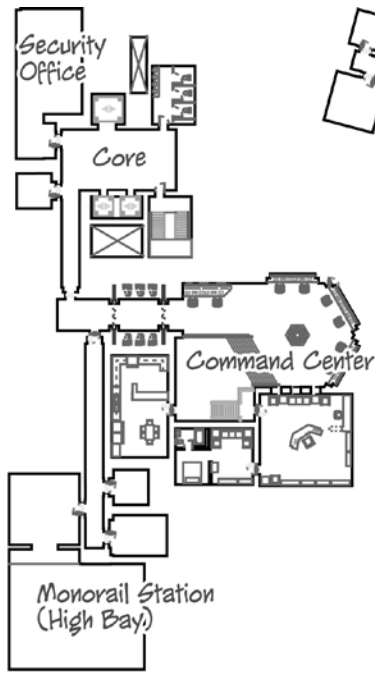
Stromguard Villa

Upper Floor

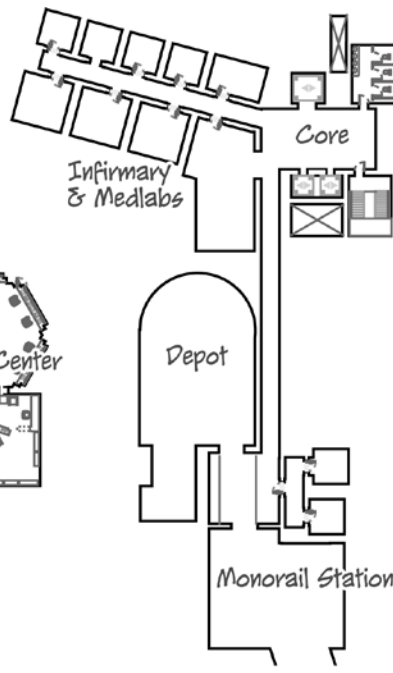


- | | |
|---|--|
| 1 Rooftop Terrace
(5m above grounds) | 10 Guest Suites (a-e) |
| 2 Office | 11 Elevator |
| 3 Master Suite Entryway | 12 Open to Hall Below |
| 4 Master Suite | 13 Main Stairwell |
| 5 Walk-in Closet | 14 Linen Closet |
| 6 Master Bath | 15 Mezzanine Overlook
(2.5m over grounds) |
| 7 Common Bathroom | 16 Front Balcony
(2.5m below Upper Floor) |
| 8 Porch from Mezzanine | |
| 9 Main Corridor | |

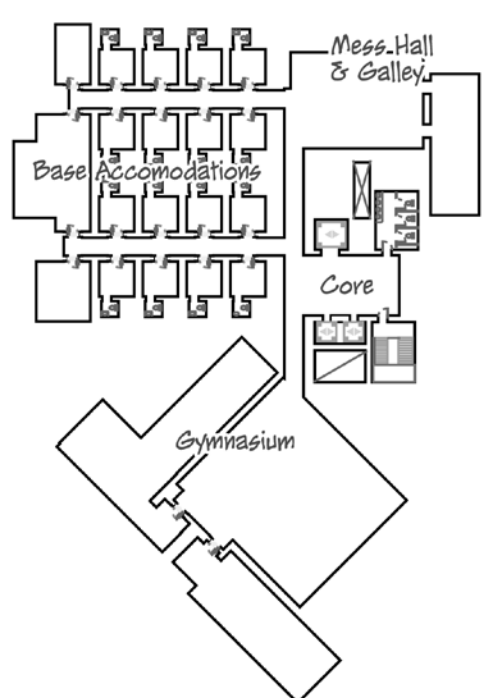




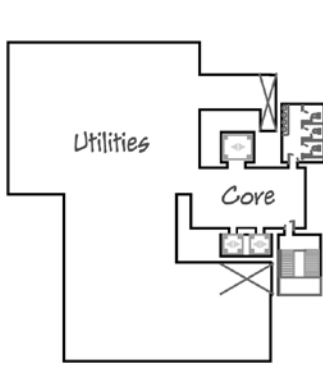
Sublevel 1



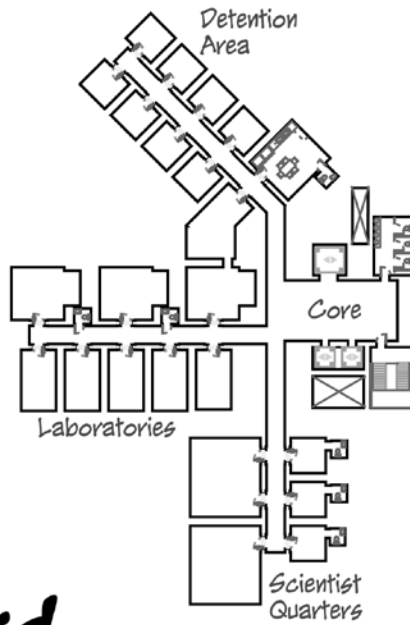
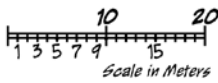
Sublevel 2



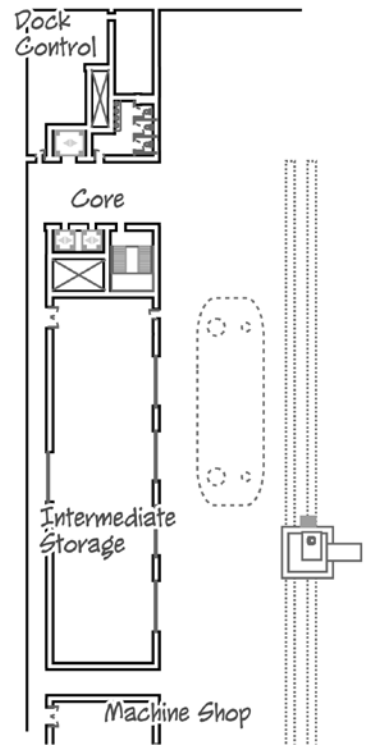
Sublevel 3



Sublevels 4-6



Sublevel 7



Sublevel 8-10 (partial)

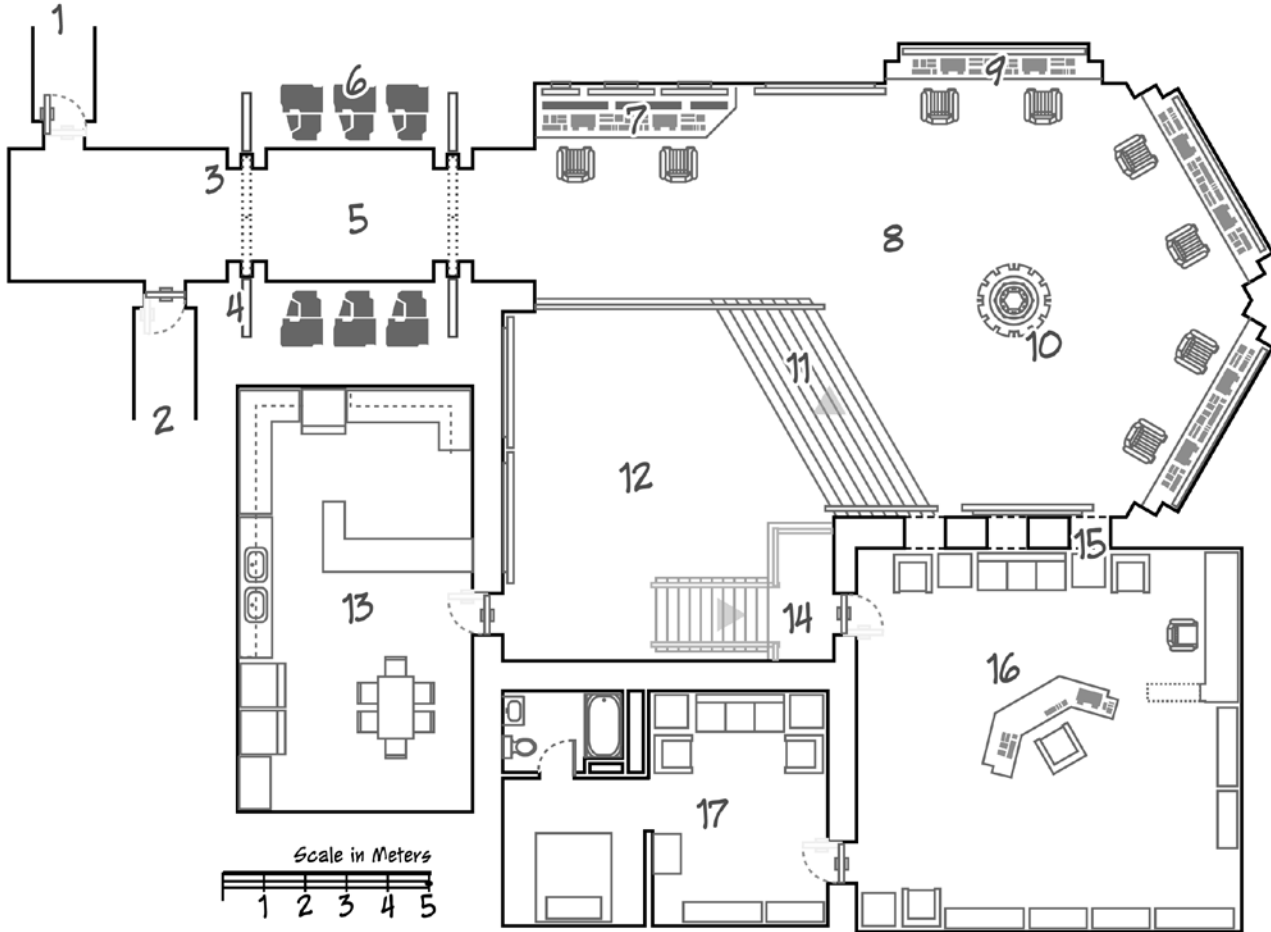


Stromguard Sub-Levels



Stromguard Base Command

3



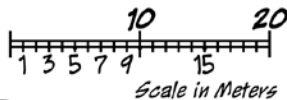
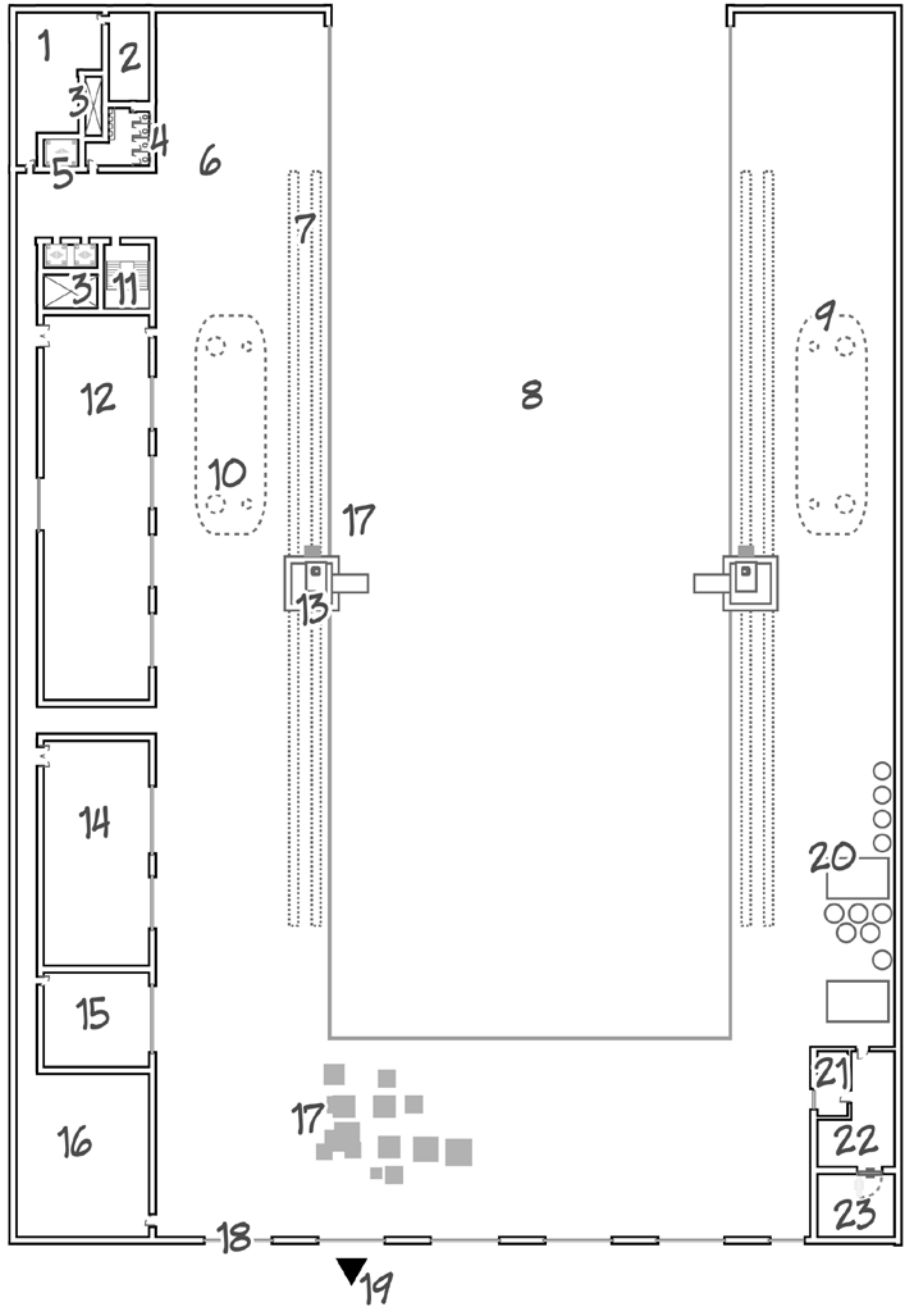
- 1 Passage to the Rest of Level
- 2 Passage to the Subterranean Monorail
- 3 Faux Pillars
- 4 Blast Doors
- 5 Killzone
- 6 Flamethrowers
- 7 Security Panel
- 8 Control Room Floor

- 9 Situation Monitoring / Control Consoles
- 10 Holographic Projector
- 11 Stairs (+2m)
- 12 Observation Platform
- 13 Amenities
- 14 Stairs to Office (+2m)
- 15 Window Openings to Floor
- 16 Hellstrom's Office
- 17 Hellstrom's Base Quarters



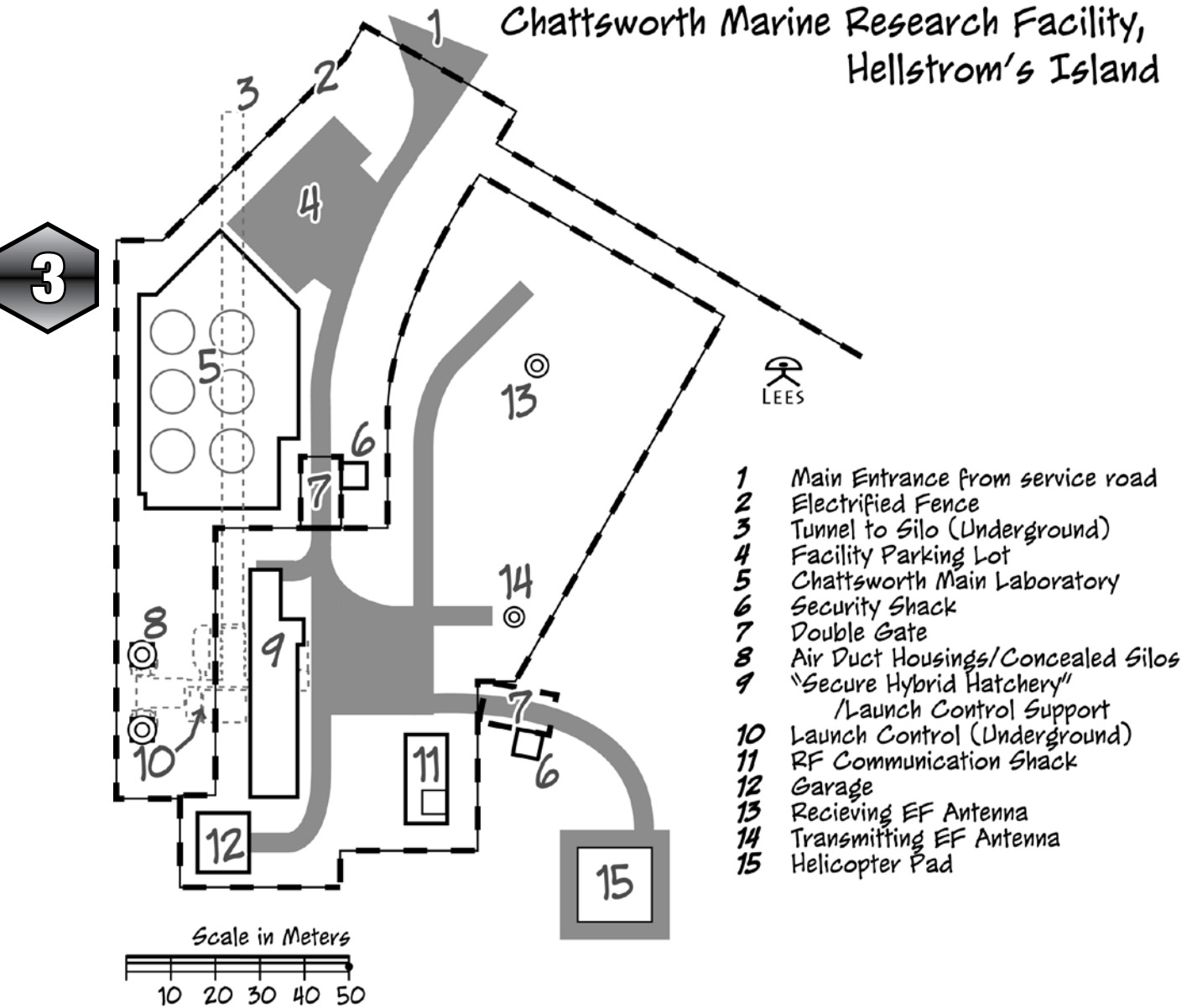
Stromguard Submarine Dock

- 1 Dock Controls
- 2 Monitoring Rooms
- 3 Service Shafts
- 4 Restrooms
- 5 Elevator (Typ)
- 6 Wharf Platform
(2m above the channel waterline)
- 7 Overhead Railing for Gantry System
(7m over Platform)
- 8 Channel
- 9 Fueltanks (Underneath)
- 10 Filling Covers
- 11 Stairwell
- 12 Intermediate Storage Area
- 13 Gantry (4m over Platform)
- 14 Machinshop
- 15 Forklift Area
- 16 Dock Break Area
- 17 Cargo on Loading/Unloading Area
- 18 Bay Doors
- 19 Storage Bays (Beyond Map)
- 20 Firefighting Equipment
- 21 Medical Supply Room
- 22 Dock Infirmary
- 23 Pressure Chamber



Concealed Launch Facility

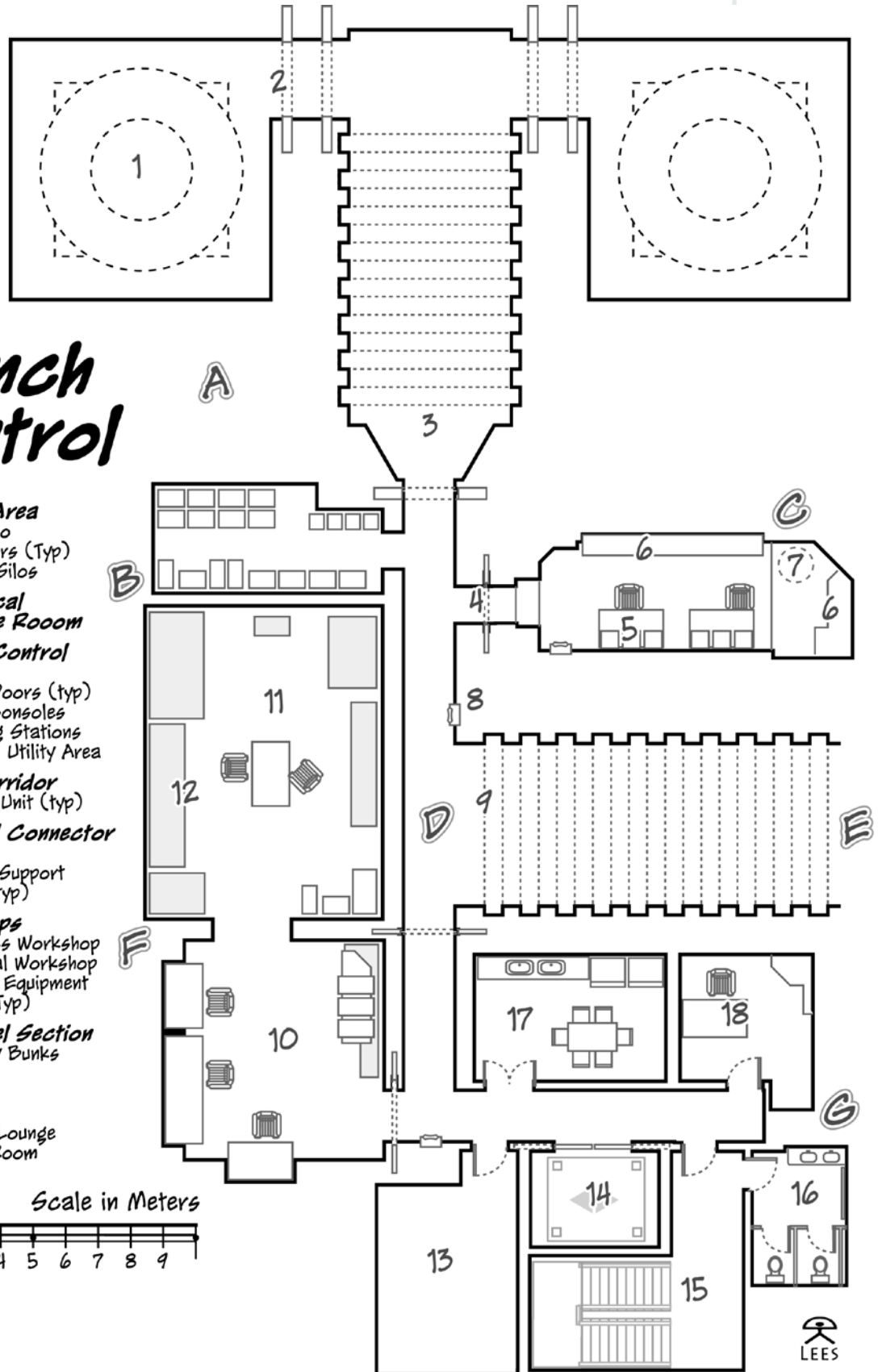
Chattsworth Marine Research Facility,
Hellstrom's Island



- 1 Main Entrance from service road
- 2 Electrified Fence
- 3 Tunnel to Silo (Underground)
- 4 Facility Parking Lot
- 5 Chattsworth Main Laboratory
- 6 Security Shack
- 7 Double Gate
- 8 Air Duct Housings/Concealed Silos
- 9 "Secure Hybrid Hatchery"
/Launch Control Support
- 10 Launch Control (Underground)
- 11 RF Communication Shack
- 12 Garage
- 13 Recieving EF Antenna
- 14 Transmitting EF Antenna
- 15 Helicopter Pad

Launch Control

- A Launch Area**
- 1 Missile Silo
- 2 Blast Doors (Typ)
- 3 Tunnel to Silos
- B Mechanical Storage Room**
- C Launch Control Room**
- 4 Security Doors (typ)
- 5 Control Consoles
- 6 Monitoring Stations
- 7 Access to Utility Area
- D Main Corridor**
- 8 Intercom Unit (typ)
- E Monorail Connector Tunnel**
- 9 Overhead Support Ribs (typ)
- F Workshops**
- 10 Electronics Workshop
- 11 Mechanical Workshop
- 12 Emplaced Equipment Rack (Typ)
- G Personnel Section**
- 13 Temporary Bunks
- 14 Elevator
- 15 Stairwell
- 16 Restroom
- 17 Off-duty Lounge
- 18 Security Room



TERRORIST CAMP

Val	Char	Cost	Notes
10	Size	20	80 x 40 x 40 meters; OCV+ 10
1	PD	0	
1	ED	-3	
1	BODY	-1	Total Characteristics Cost: 16

Cost Powers **END**15 **Location:** Distant, Deep Wilderness**Power Systems**7 **Generator:** Endurance Reserve (60 END; 6 REC) 0
OIF Immobile (-1¼)**Tactical Systems**13 **Sandbag Walls:** +5 PD, +9 ED, +5 BODY 0
Partial Coverage (-1)1 **Double Sandbag Wall:** +2 BODY 0
Partial Coverage (-2)**Total Abilities & Equipment Cost: 36****Total Base Cost: 52****Value Complications**10 **Hunted:** various governmental agencies (Infrequently, As Pow, Locate/Capture/Destroy)**Total Complications Points: 10****Total Cost: 52/5 = 10****WAREHOUSE ONE**

Val	Char	Cost	Notes
8	Size	16	50 x 25 x 25 meters; OCV+ 9
7	PD	7	
10	ED	14	
3	BODY	1	Total Characteristics Cost: 38

Cost Powers **END**0 **Location:** City**Total Abilities & Equipment Cost: 0****Total Base Cost: 38****Value Complications**

0 None

Total Complications Points: 0**Total Cost: 38/5 = 8****WAREHOUSE TWO**

Val	Char	Cost	Notes
8	Size	16	50 x 25 x 25 meters; OCV+ 9
7	PD	7	
10	ED	14	
3	BODY	1	Total Characteristics Cost: 38

Cost Powers **END**25 **Location:** City, Underground**Power Systems**19 **Generator:** Endurance Reserve (160 END, 20 REC) 0
OIF Immobile (-1½)8 **Backup Generator:** Endurance Reserve (60 END, 12 REC); 0
OIF Immobile (-1½)**Tactical Systems**4 **Reinforced Superbase Walls:** +3 PD 0
Partial Coverage (-½)6 **Secured Room Walls And Doors:** +7 PD, +4 ED 0
Partial Coverage (-2)19 **Pop-Out Security Blasters:** Blast 10d6 [60]
Autofire (3 shots; +¼), 60 Charges (+½);
IAF Immobile (-1½), Only Within Defined Area (-2)15 **Pop-Out Security Blasters:** seven more Blasters (total of 8) [60]11 **Security Cameras:** Clairsentience (Sight And Hearing Groups) 4
Multiple Perception Points (up to four at once); IAF Immobile (-1½), Affected As Radio Group As Well As Sight/Hearing Groups (-¼), Fixed Perception Points (-1)15 **Hidden Entrances:** Concealment 15-**Operations Systems**3 **Communications Systems:** HRRP 1
OAF Immobile (-2), Affected As Sight And Hearing Group As Well As Radio Group (-½), Costs Endurance (-½)13 **Laboratories:** Computer Programming 14-13 **Laboratories:** Electronics 14-5 **Laboratories:** SS: Biology 14-5 **Laboratories:** SS: Physics 14-7 **Laboratories:** SS: Super-Science 16-10 **High-Speed Internet Access:** KS: Everything 30- 0
OAF (computer terminal; -1)**Personnel Systems**11 **Infirmary:** Paramedics 13-**Total Abilities & Equipment Cost: 189****Total Base Cost: 227****Value Complications**10 **Hunted:** a superhero team (Infrequently, As Pow, Locate/Capture/Destroy)**Total Complications Points: 10****Total Cost: 227/5 = 45****OTHER FEATURES****Cost Power**4 **Elevators:** 4 elevators (see Chapter Five)

TERRORIST CAMP

Description: Located deep within the desert is a training camp for terrorists. There, far from prying eyes, terrorists can learn how to use firearms, practice paramilitary maneuvers, study demolitions, and plan their attacks on free societies and innocent civilians everywhere.

The camp is approximately 70m x 70m, laid out in a roughly square fashion. Key areas are protected by sandbag walls with firing ports in them (and the supply dump has a double sandbag wall). The extra PD/ED for the walls is listed on the character sheet, but the GM should keep common sense in mind when evaluating the effects of attacks — sandbag walls are great at absorbing most types of small arms fire (at least for awhile), but are easily torn down with an axe or smashed through with a moving vehicle.

Player Characters attacking the camp may find things there they can use against the terrorists. The Ammunition Dump and Armory Tent (#12) has plenty of guns and bullets; starting a fire here could lead to a massive explosion, or cause bullets to “cook off” and fire at random through the area (if this happens, roll 3d6 every Segment; on a 6 or less, someone [chosen randomly] is hit by an RKA 2d6, +1 STUN Multiplier). Throwing someone in one of the fire pits (#8, #10) causes him to take RKA 1d6 per Phase (SPD 3) until he gets out. Most dangerous of all is the fuel dump (#5). A full 55-gallon drum of gasoline can explode for up to 25d6 Normal Damage; a partly full one for up to 30d6 Normal Damage.

WAREHOUSE ONE

Description: *The Ultimate Base* includes two warehouse maps. The first one is a “realistic” warehouse, like the ones characters might encounter in a Dark Champions game or low-powered Champions game. It’s roughly 50m long and 30m wide, with a ceiling three stories above a poured cement floor. The exterior walls are made of reinforced brick.

There are two versions of the map. The first shows the warehouse in its ordinary form — an active, maintained, working warehouse used for the storage of goods. Pallets holding various crates, boxes, and other containers of goods are stacked up to 7m high in neat rows. There are special chain-link “cages” for secure storage of special items, another cage for equipment, and a block of four rooms for offices and a break room. With its plethora of cover and varying elevations it makes a great scene for a gunfight or superhero battle.

The second shows what happens when the warehouse is abandoned and gets taken over as the hideout for a gang, supervillain, or the like. The neat stacks of pallets are gone, replaced by leftover worthless goods and other trash. Some of the cages are now bedrooms for high-ranking members of the gang; the rest hold dogs (for security or dogfighting). Most of the gang beds down in a “living area” (#12) on various chairs and sofas they’ve scrounged up.

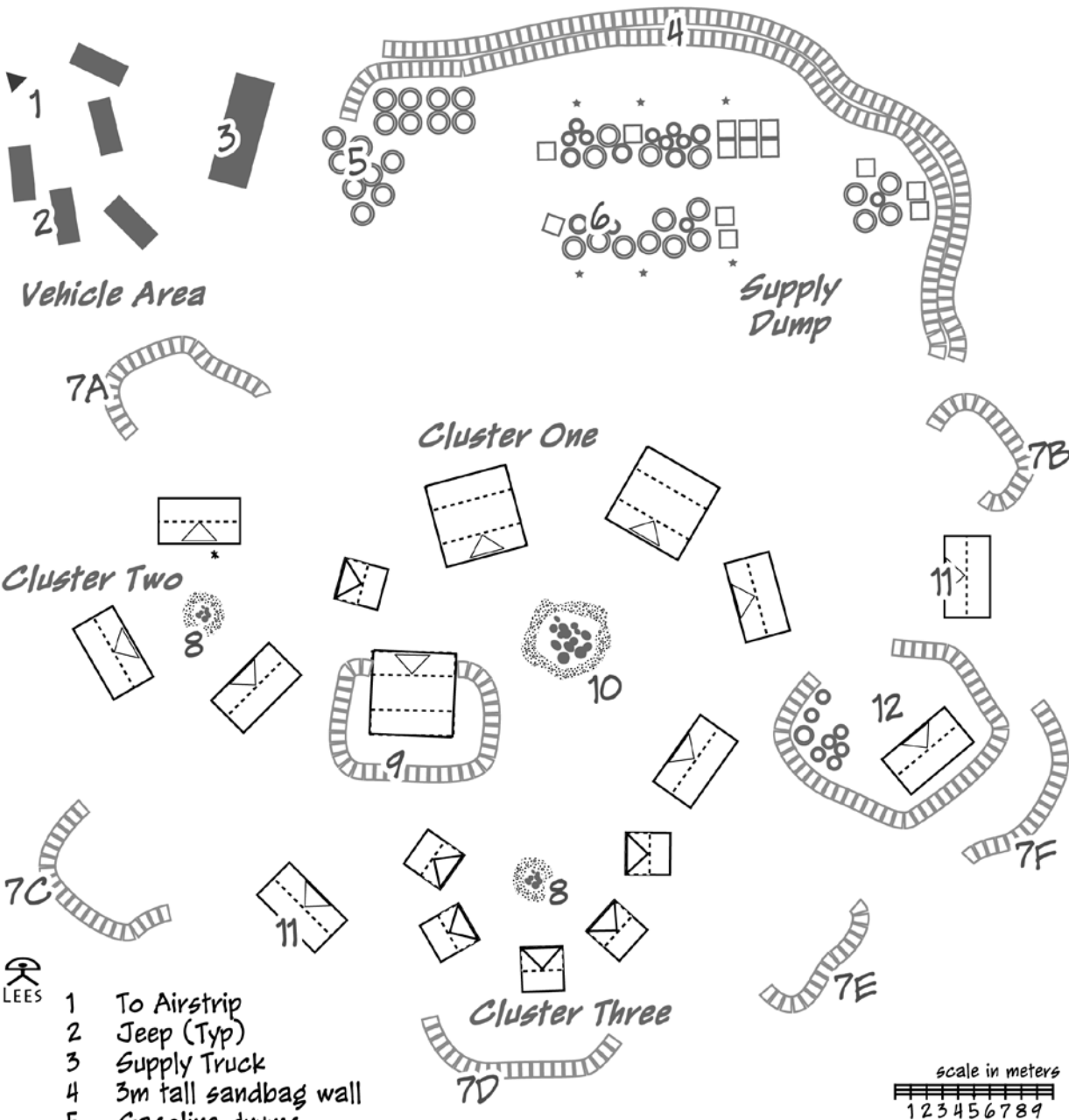
WAREHOUSE TWO

Description: The second warehouse again consists of two maps. The first shows the warehouse itself, which is a little smaller than the first one but similarly functional. It includes a small “loft” area, reached by stairs, for goods that need to be kept separate from the general mass.

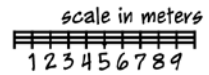
But this warehouse has a sinister secret — it’s really just “cover” for a supervillain’s high-tech lair! Which supervillain, or even villain team or group, is up to you, and may require you to adjust the Base accordingly. For example, if it’s Cybermind’s base, there should be more features devoted to computers and related matters; if it belongs to Zorran the Artificer, it needs a fantasy/mystic makeover, and the labs need to be switched from sciences to matters arcane.

Access to the Base is by one of three concealed entrances: a hatchway that leads into the city’s sewer system; and two concealed elevators that rise to the warehouse above. Major traffic comes through the sewer entrance, which is larger, but henchmen frequently use the elevators. Except for the warehouse manager (who’s a loyal minion), none of the warehouse employees are aware of the hidden headquarters, though they know “something fishy” is going on in the warehouse and that one of the reasons they’re paid more than typical warehouse employees is to ignore unusual events and keep their mouths shut.

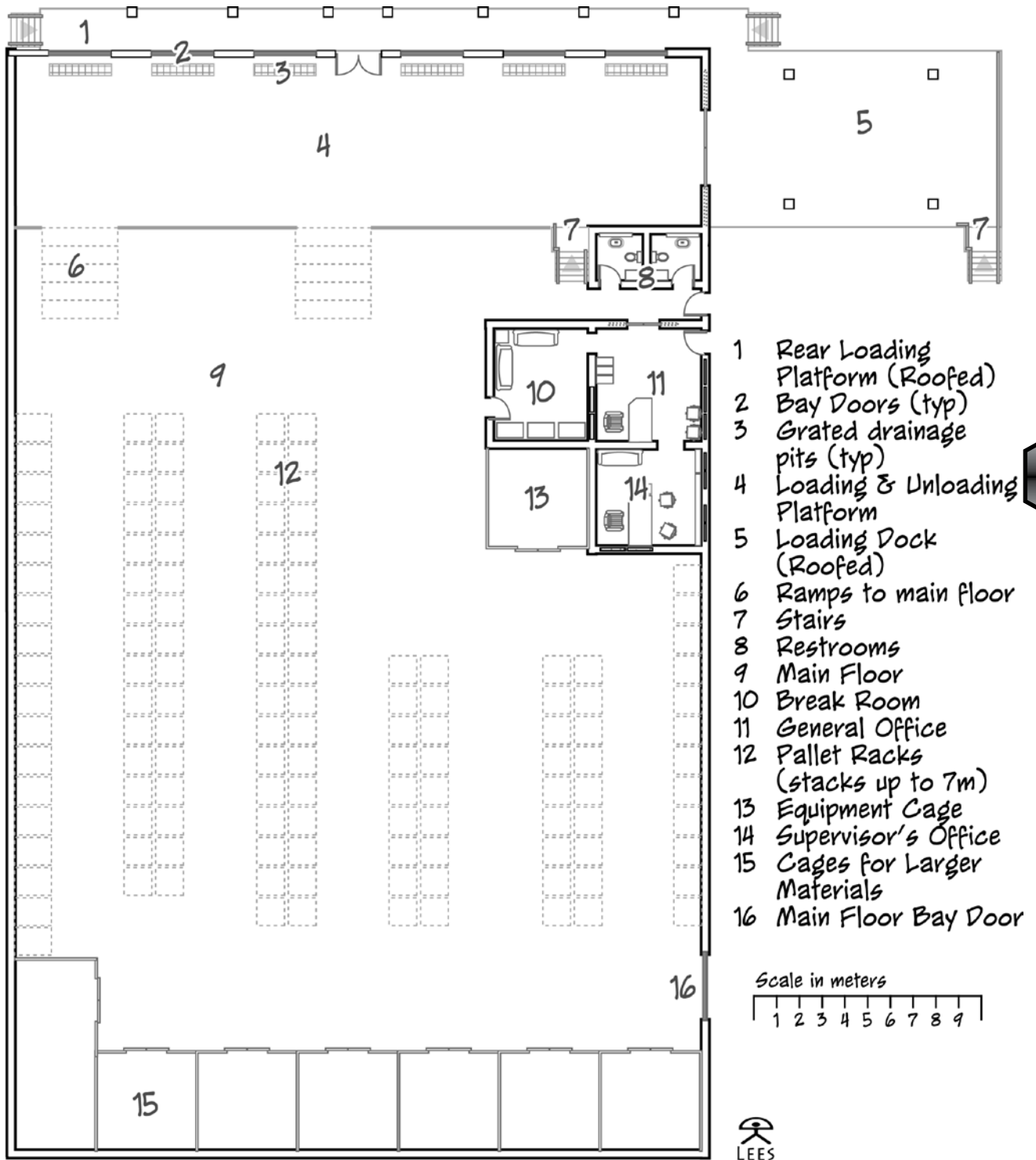
The hidden lair has many features common to super-bases: living quarters for the villain and his henchmen (not luxurious, but pretty comfortable); concealed security blasters that pop out at key locations to zap intruders (assume they have OCV 7 for this purpose; they should get a Surprise Move bonus the first few times, until the PCs learn what to look for); laboratories for fiendish super-science experiments; and so on. It has two generators, a standard and a backup, to supply its power needs so meddling heroes can’t find it by tracing its drain on the local power grid.



- 1 To Airstrip
 - 2 Jeep (Typ)
 - 3 Supply Truck
 - 4 3m tall sandbag wall
 - 5 Gasoline drums
 - 6 Tarp-Covered Supplies (stake points marked)
 - 7 ~2m tall Sandbag Embankment (w/ ports for wide-angle firing)
 - 8 Small Firepit
 - 9 Fortified Tent*
 - 10 Large Firepit
 - 11 Latrine Tents*
 - 12 Ammunition Dump & Armory Tent*
- *Triangles on all Tents used denote main opening



Terrorist Camp



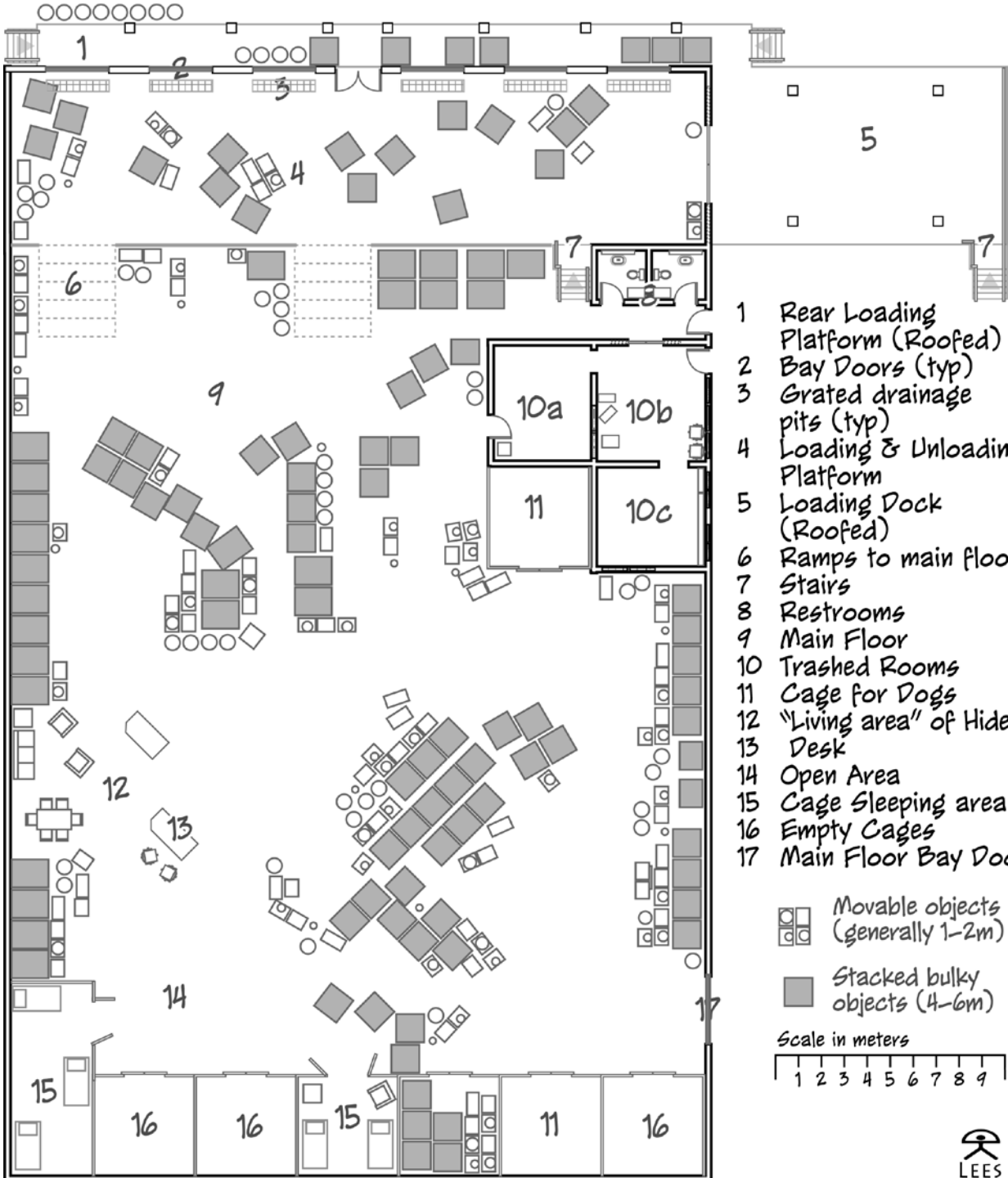
Warehouse One

Active

Warehouse One

Abandoned

3

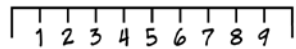


- 1 Rear Loading Platform (Roofed)
- 2 Bay Doors (typ)
- 3 Grated drainage pits (typ)
- 4 Loading & Unloading Platform
- 5 Loading Dock (Roofed)
- 6 Ramps to main floor
- 7 Stairs
- 8 Restrooms
- 9 Main Floor
- 10 Trashed Rooms
- 11 Cage for Dogs
- 12 "Living area" of Hideout
- 13 Desk
- 14 Open Area
- 15 Cage Sleeping area
- 16 Empty Cages
- 17 Main Floor Bay Door

Movable objects (generally 1-2m)

Stacked bulky objects (4-6m)


Scale in meters



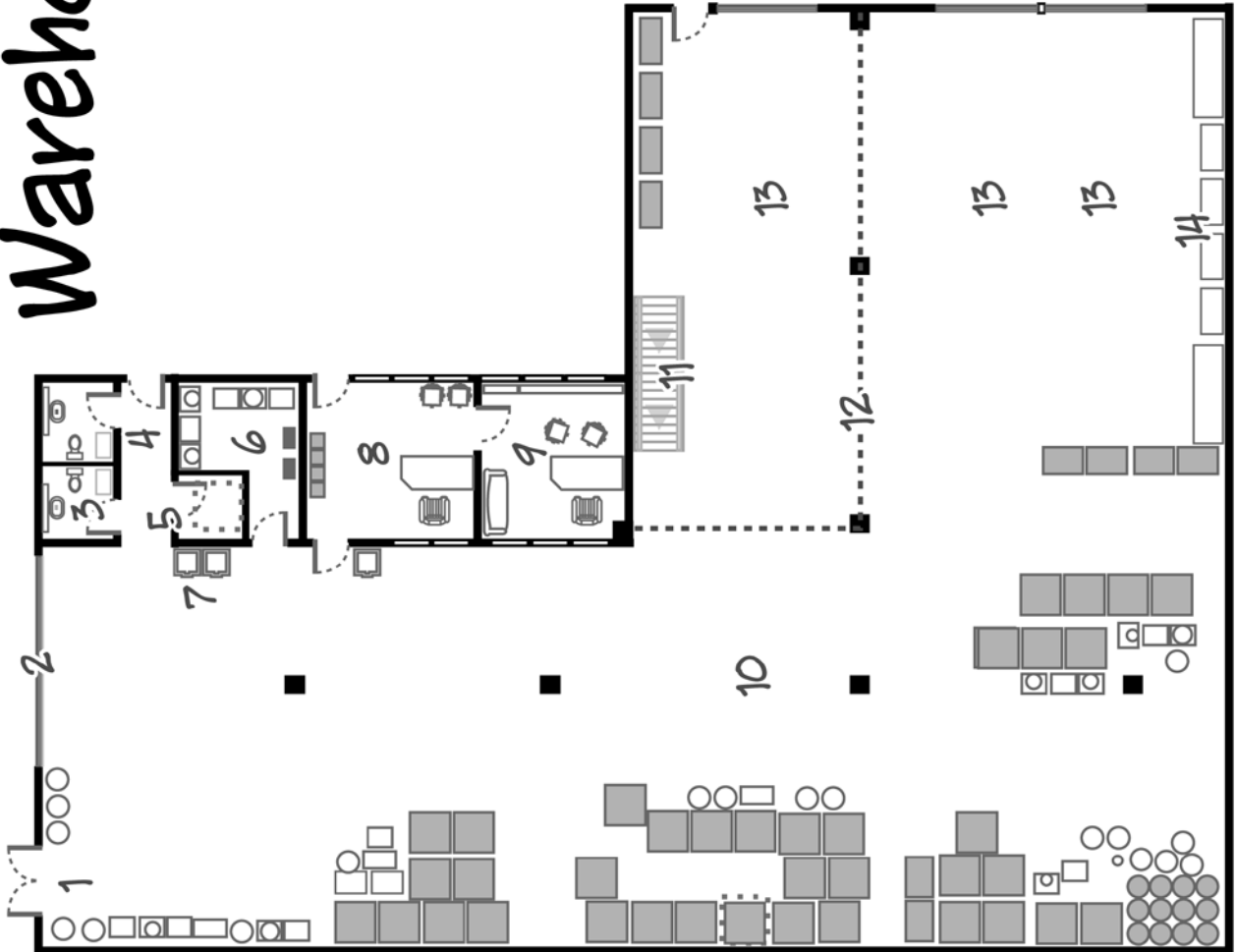
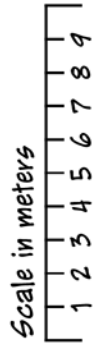
Warehouse Two

- 1 Rear Exit
- 2 Bay Doors (typ)
- 3 Restrooms
- 4 Side Door
- 5 Maintenance Closet
- 6 Storeroom
- 7 Vending Machines
- 8 Office
- 9 Supervisor's Office
- 10 Main Floor
- 11 Stairs to Loft
- 12 Edge of Storage Loft
- 13 Vehicle Bays
- 14 Tool Area

 Movable objects (generally 1-2m)

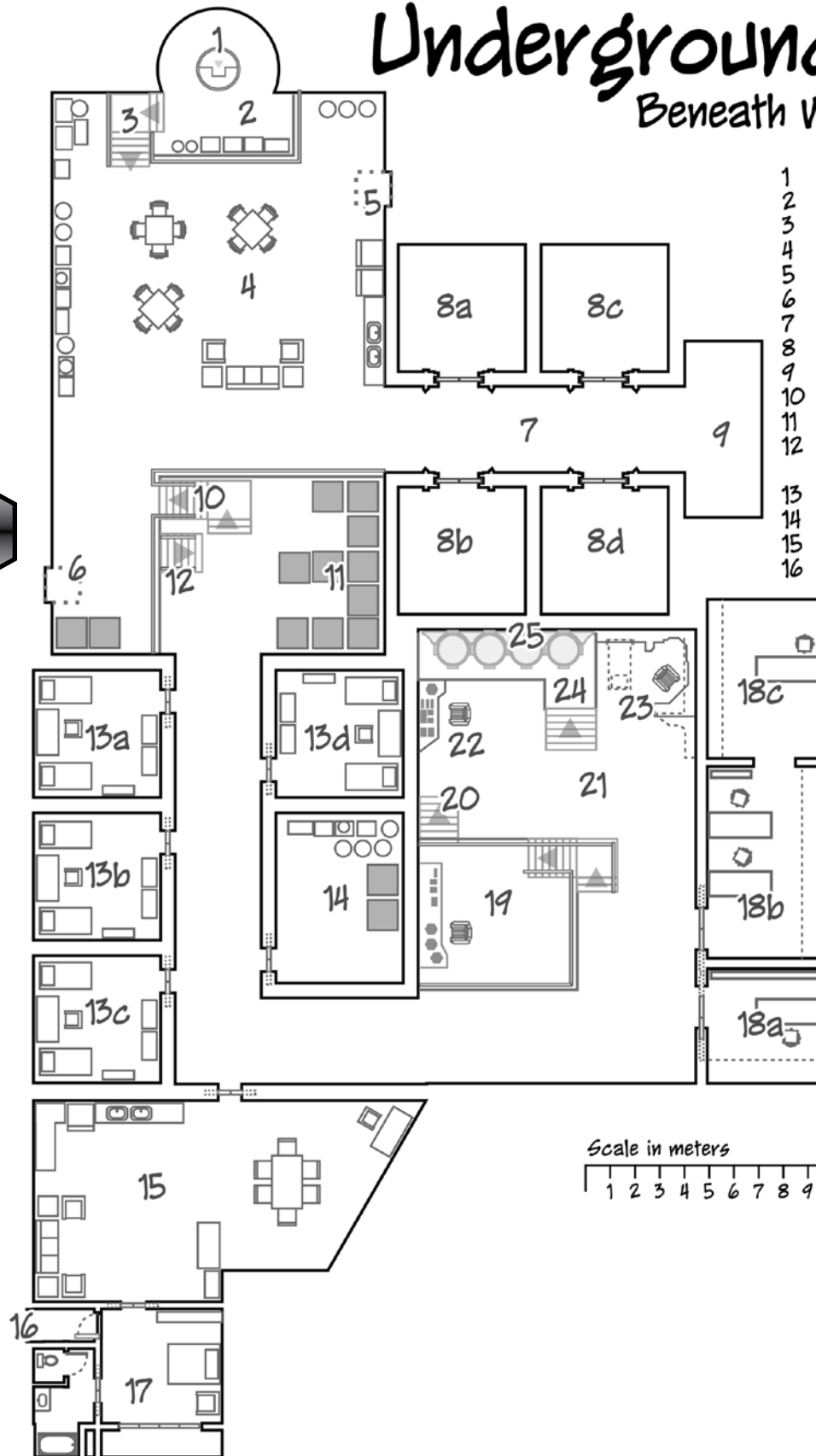
 Stacked bulky objects (4-6m)

 Concealed Elevator



Underground Lair

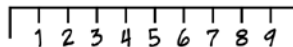
Beneath Warehouse Two

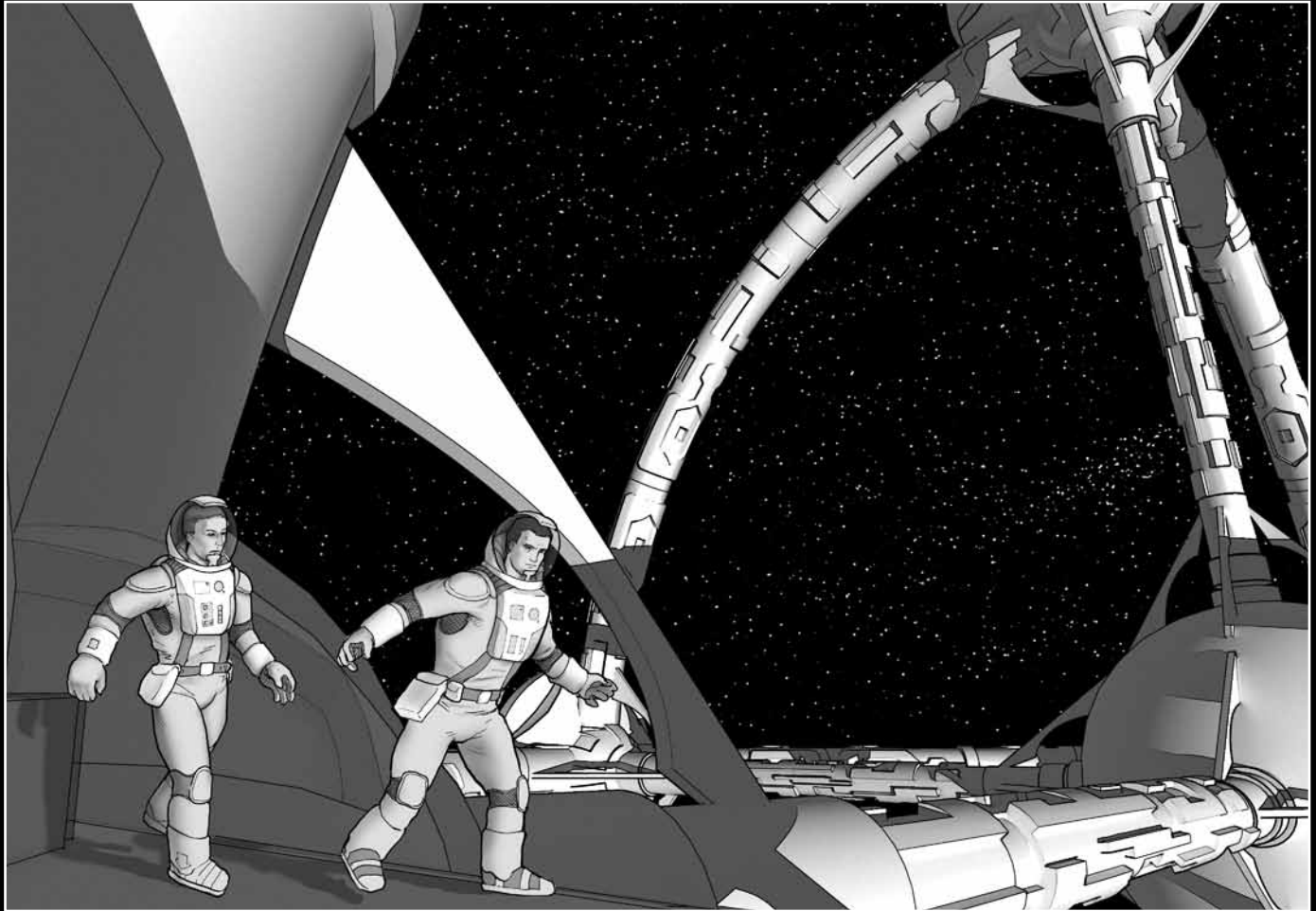


- 1 Access to Sewers
- 2 Sewer Access Pit
- 3 Stairs up (+2m)
- 4 Recreation Area
- 5 Elevator from Closet
- 6 Elevator from Fake Cargo
- 7 Corridor
- 8 Secured Rooms (A-D)
- 9 Storage Area
- 10 Stairs down (-2m)
- 11 Storage Area
- 12 Stairs to Restrooms (underneath, not shown)
- 13 Henchmen Barracks (A-D)
- 14 Storage Area
- 15 Villain's Living Quarters
- 16 Secret Passage
- 17 Villain's Sleeping Area
- 18 Labs (A-C)
- 19 Power Platform (+2m)
- 20 Stairs to Powercell Pit (-2m)
- 21 Experiment Area
- 22 Experiment Monitoring
- 23 Med-Station
- 24 Experiment Platform (+1.5m)
- 25 Bio-Tubes



Scale in meters





CHAPTER FOUR
SCIENCE FICTION
BASES



SCIENCE FICTION BASES

Of all the major genres, Science Fiction shows the widest diversity in the types, shapes, and configurations of Bases. Science Fiction characters have to cope with a vast number of environments, alien species, and astronomical phenomena — all of which can be dangerous to some degree. That creates a need for all sorts of bases: orbital defense stations around inhabited planets; scientific outposts on distant worlds; trading starports where spacelanes intersect; and countless other types.

BASE PURPOSE

The purposes of Science Fiction Bases are basically the same as those listed in the early part of Chapter Three for modern Bases. Military and Research and Development Bases are particularly common in Science Fiction adventures. One additional Base purpose frequently seen in Science Fiction stories is *Commercial*. In most genres matters of trade, manufacturing, and economics typically remain very much in the background, but they're an important aspect to many Science Fiction settings and tales. Space stations devoted primarily to commerce (and perhaps diplomacy), such as Babylon 5 and Deep Space 9 of television fame, become important locations in stories of starfaring adventure. They present all sorts of opportunities for clever and daring souls (such as Player Characters!) to earn a profit, become involved in intrigues, and of course get into all sorts of trouble. In fact, some Star Hero campaigns may be based primarily around the adventures of a group of wandering traders and merchants whose goals in life are to buy low, sell high, and avoid snooping customs officers who might want a closer look at what they're carrying in their starship's hold.

BASE CHARACTERISTICS

Here are some guidelines and suggestions regarding Characteristics for Science Fiction Bases.

SIZE

Bases in most campaigns rarely rise above Size 18-20 at most, and even that tends to be extreme. But in some Science Fiction campaigns, it's

possible for a character to buy as a Base an entire planet, ringworld, orbital, Dyson sphere, or other “megastructure,” which could easily range in Size from 40-80, or beyond (see the Size Comparisons table on page 8 for some examples).

BODY AND DEFENSES

As discussed on pages 13-14, the BODY and PD/ED of a Base typically depend on its average walls. In a Science Fiction campaign this can vary wildly, from the wooden palisade fortresses of the primitive lizard-people of Altair IX to the unobtainium hulls of the Galactic Empire's massive “Lifestar” space habitats. But in most Star Hero campaigns the typical Base will be a high-tech construct with walls made of advanced metals, plastics, ceramics, and similar materials. That typically means around PD 13, ED 20 for steel, and probably even more for more advanced metals.. The outer hull of a Base in outer space or on a planet with a hostile or corrosive environment could easily be a meter thick (BODY 17 for steel) or more, but the average interior wall is probably closer to 16-32mm thick (BODY 4-7 for steel).

As a form of “defense,” most Science Fiction Bases have Life Support. This ensures that the airless vacuum of space, the radiation from nearby stars, and the crushing atmospheres of Venus-like planets don't harm the Base's occupants.

LOCATION

Most Science Fiction Bases have one of two locations: Distant, Outer Space or Distant, Deep Wilderness. The former refers to any Base outside a planetary atmosphere, such as an orbital habitat, a star-fortress, or a “high port” for starship-based commerce. The latter is applicable to science outposts on frontier worlds and other planets that are far from the mainstream of galactic civilization. Some such Bases are Underground instead, for protection and/or concealment.

The GM may need to re-evaluate the cost structure for Base locations in light of the technology available in his campaign. For example, if a society has constant access to easily-used teleportation technology (such as the transporters in *Star Trek*), then many locations may just cost 0 points since they're so easy to reach. “Distant” takes on a whole new meaning when thousands or millions of miles can be crossed in the blink of an eye!

EXAMPLE SCIENCE FICTION BASES



Here are a few example Bases for use in your Science Fiction campaigns.

DETHRIDGE ORBITAL FORTRESS

Description: Named after a pioneer of interstellar flight, the Dethridge Orbital Fortress is one of several defensive Bases orbiting a valuable planet in the Galactic Empire. It's derived from a common design used on hundreds of worlds throughout the Empire, and thus is fairly typical of the sort of defenses the Empire's enemies can expect to encounter during an invasion.

Although it's not uncommon for orbital defense Bases to be fairly small, Dethridge is one of the linchpins of its planet's defense framework and thus quite large. The "dome" on top is nearly 500m in diameter about 170m tall, while the docking "stalk" below it is over 120m long (including the spars at the bottom) and 230m in diameter at its widest point.

Dethridge was manufactured in orbit primarily by robots, though the most important work was done by skilled human laborers. Its interior walls are a 30mm thick neutronium steel and blast plastic composite; the hull is half a meter thick and made of the same material. The station's overall shape is often compared to a mushroom. The top part is a sort of half-spherical "dome" with a beveled edge (which is known, appropriately enough, as "the Bevel"); it's topped with a group of communications towers and related structures known as "Gold City" due to its distinctive coloration. Below the dome is a sort of cylindrical structure where ships can dock. Vessels up to medium size can enter the Enclosed Docks section, which holds up to ten ships; larger vessels must use one of the five Asymmetrical Docking Spars at the very bottom of the station. (See illustration, page 28.)

The Fortress's energy needs are met by a large, though otherwise fairly standard, malion field power plant. A pulson generating system interacts with malion field towers to generate the enormous

amounts of "juice" needed to power the station's artificial gravity, life support, weapons, and military electronics. There's also a smaller backup power plant in the event of a problem with the first, but it can't generate enough energy to keep the station functioning for very long.

As a defensive starbase, Dethridge is equipped with many weapons and tactical systems. Its primary armament is the superheavy laser, with eight mounted on the Bevel and four on the dome itself. It also has eight dual-barrel turreted laser cannons (four on top of the dome, four below), each manned by a skilled tactical specialist during an attack. When energy weapons alone won't suffice, the station can launch Star-Torpedoes from any of six launchers. The torpedoes can be programmed (either before firing, or remotely while in flight) to avoid obstacles, strike targets from unusual angles, and the like.

If necessary, Dethridge can activate an energy shield to provide further protection; the station's tactical computers can open tiny, precisely-placed "windows" in the shield to let the station's attacks through without diminishment. The shield requires a lot of power to maintain, though, so it's not used unless the situation truly warrants it.

Dethridge also has several fighter bays from which it can launch small, agile fighters to counterattack its attackers. Fighter patrols make routine sweeps of the solar system every day to watch for threats (be they from enemies, meteors, or the like).

The fortress also features about two dozen cells, and supporting infrastructure, for prisoners. Typically about half of these cells are filled with soldiers who've been convicted of serious crimes at court-martial, or sometimes enemy personnel awaiting transport back home as part of a prisoner exchange.

Dethridge has a full-time crew of several dozen "soldiers" (actually Star Navy personnel) ranging from Commander Edward Seagraves down to the "wardens" who run the Detention area. Accommodations aren't expansive, but the fortress is regarded as a pretty comfortable posting overall. A food reconstitution/dispensing system allows each crewman to eat pretty much whatever he wants, and the video entertainment systems are first-rate.

DETHRIDGE ORBITAL FORTRESS

Val Char Cost Notes

20	Size	40	2 x 1 x 1 km; OCV+ 17
18	PD	24	
26	ED	36	
10	BODY	8	Total Characteristics Cost: 108

Cost Powers

35	Location:	Distant, Outer Space	END
6	Hull:	+8 BODY	0
		Partial Coverage (exterior walls only; -¼)	

Power Systems

282	Malion-Field Power Plant:	Endurance Reserve (1,000 END, 1,000 REC)	0
		OAF Immobile (-2), Only Powers Electrical Devices (-¼)	
5	Backup Malion Power System:	a second Endurance Reserve (750 END, 250 REC)	0

Tactical Systems

58	Bevel-Mounted Superheavy Lasers:	RKA 6d6	20
		Armor Piercing (+¼), MegaScale (1m = 1km; +1); OIF Immobile (-1½), Beam (-¼), Limited Arc Of Fire (120 Degrees; -½), Real Weapon (-¼)	
15	Bevel-Mounted Superheavy Lasers:	seven more Lasers (total of 8)	20
62	Dome-Mounted Superheavy Lasers:	RKA 6d6	20
		Armor Piercing (+¼), MegaScale (1m = 1km; +1); OIF Immobile (-1½), Beam (-¼), Limited Arc Of Fire (180 Degrees; -¼), Real Weapon (-¼)	
10	Dome-Mounted Superheavy Lasers:	three more Lasers (total of 4)	20
76	Turreted Laser Cannons:	RKA 6d6	24
		Armor Piercing (+¼), Autofire (4 shots; +½), MegaScale (1m = 1km; +1); OIF Immobile (-1½), Beam (-¼), Limited Arc Of Fire (180 Degrees; -¼), Real Weapon (-¼)	
15	Turreted Laser Cannons:	seven more Lasers (total of 8)	24
200	Star Torpedo Launchers:	RKA 10d6	[12]
		Area Of Effect (30m Radius Explosion; +½), Indirect (Source point is always the same, but Path changes from use to use; +½), MegaArea (1m = 1km wide, long, and deep; +1), MegaRange (1m = 1 km; +1); OIF Immobile (-1½), Real Weapon (-¼), 12 Charges (-¼)	
15	Star Torpedo Launchers:	five more Launchers (total of 6)	[12]
91	ECCM:	Suppress Electronic Warfare 8d6	34
		Expanded Effect (any two EW powers at once; +½), MegaRange (1m = 10 million km; +2¾); OAF Immobile (-2), Costs Endurance (to maintain; -½), Real Weapon (-¼)	
1,097	Energy Shield:	Barrier 18 PD/18 ED, 18 BODY (1,600m long, 400m tall, and ½m thick)	233
		One-Way Transparent (+1), Hardened (+¼); OAF Immobile (-2), Cannot Englobe (-¼), Costs Endurance (to maintain; -½), Restricted Shape (bubble around station; -¼)	

Operations Systems

133	Sensor And Communication Systems:	Variable Power Pool, 100 base + 50 control cost	var
		MegaScale (1 light-year per Active Point; +4¼); OAF Immobile (-2), Costs Endurance (-½), Only For Senses And Communications (-1)	
7	Long-Range Sensors:	+10 versus Range for Radio Group	0
		OAF Immobile (-2)	
3	Enhanced Sensors/Communications:	+4 to Systems Operation roll	0
		OAF Immobile (-2)	
10	Internal Monitors:	Clairsentience (Sight And Hearing Groups)	4
		Multiple Perception Points (up to eight at once); OAF Immobile (-2), Affected As Radio Group As Well As Sight/Hearing Groups (-¼), Fixed Perception Point (-1)	
46	Tractor Beams:	Telekinesis (100 STR)	15
		OIF Immobile (-1½), Affects Whole Object (-¼), Limited Arc Of Fire (60 Degrees forward; -½)	
15	Tractor Beams:	five more Tractor Beams (total of 6)	15

Personnel Systems

12	Life Support:	Life Support (Self-Contained Breathing; Safe Environments: High Radiation, Intense Cold, Intense Heat, Low Pressure/Vacuum)	2
		Costs Endurance (-½)	
5	Backup Life Support:	Life Support (Self-Contained Breathing; Safe Environments: High Radiation, Intense Cold, Intense Heat, Low Pressure/Vacuum)[1cc]	
		Only Within Defined Area (20m x 20m chamber; -2), 1 Continuing Fuel Charge (easily replaced from sources outside the Base; 1 Month [i.e., 1,800 man-days]; -0)	
15	Backup Life Support:	7 more Backup Life Support areas (total of 8)	[1cc]
3	Food Dispenser System:	Life Support (Diminished Eating: no need to eat)	[1cc]
		1 Continuing Fuel Charge (easily replaced from sources outside the Base; 1 Year [i.e., 60 man-years]; -0)	
15	Artificial Gravity:	Telekinesis (20 STR)	3
		Selective (+½); OIF Immobile (-1½), Only To Pull Objects Straight Down To The Floor (-1)	
2	Backup Artificial Gravity:	Telekinesis (5 STR); OIF Immobile (-1½), Only To Pull Objects Straight Down To The Floor (-1)	1
13	Medical Facilities:	Paramedics 14-	0
5	Medical Facilities:	SS: Medicine 14-	0





Skills/Laboratories

- 11 **Targeting Computer:** +8 with Base Weapons 4
OAF Immobile (-2), Costs Endurance (-½)
- 13 Computer Programming 14-
- 13 Cryptography 14-
- 13 Demolitions 14-
- 13 Electronics 14-
- 13 Mechanics 14-
- 13 Weaponsmith (Missiles & Rockets, Energy Weapons) 14-

Total Abilities & Equipment Cost: 2,340

Total Base Cost: 2,448

Value Complications

- 5 **Hunted:** its own military (Infrequently, As Pow, NCI, Watching)
- 15 **Hunted:** enemy militaries (Infrequently, As Pow, NCI, Capture/Destroy)

Total Complications Points: 20

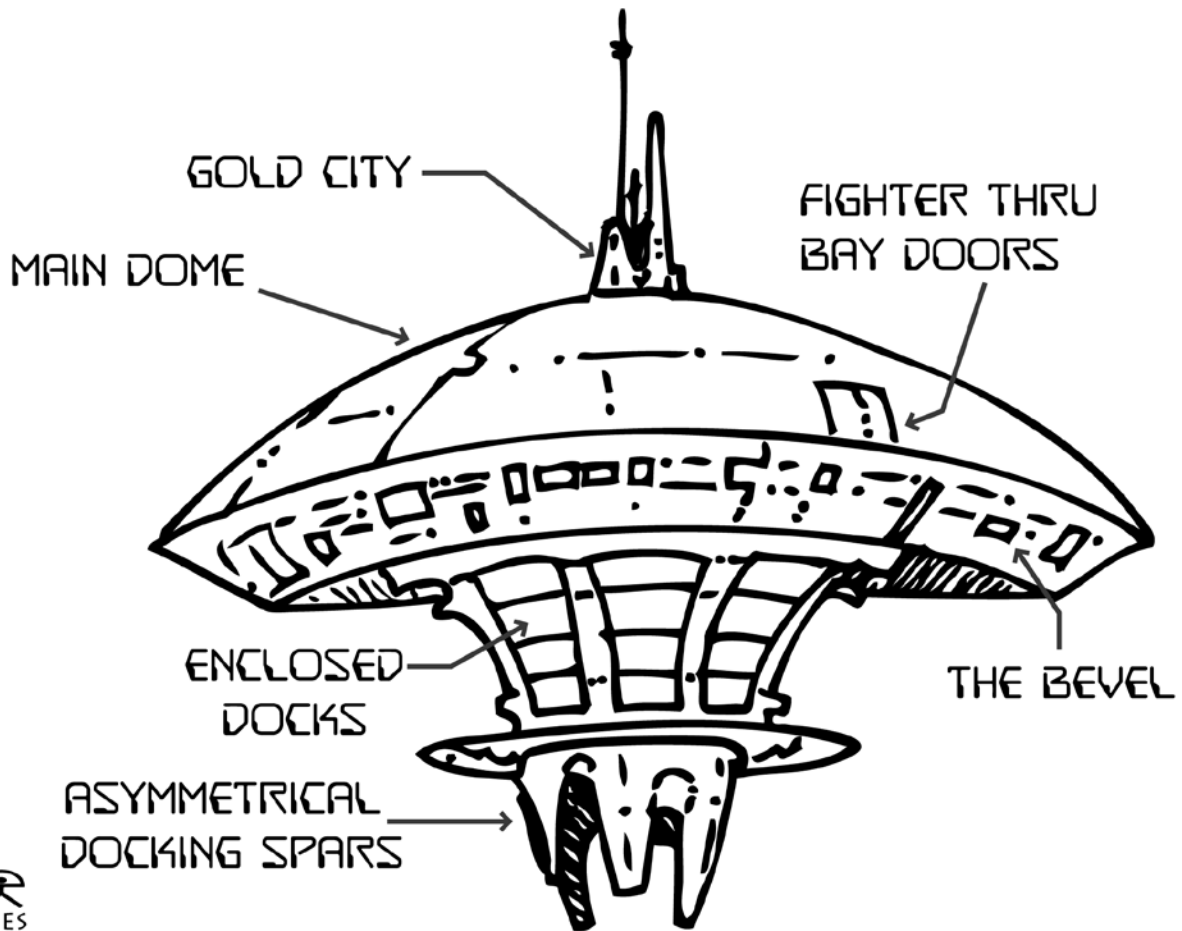
Total Cost: 2,448/5 = 490

OTHER EQUIPMENT

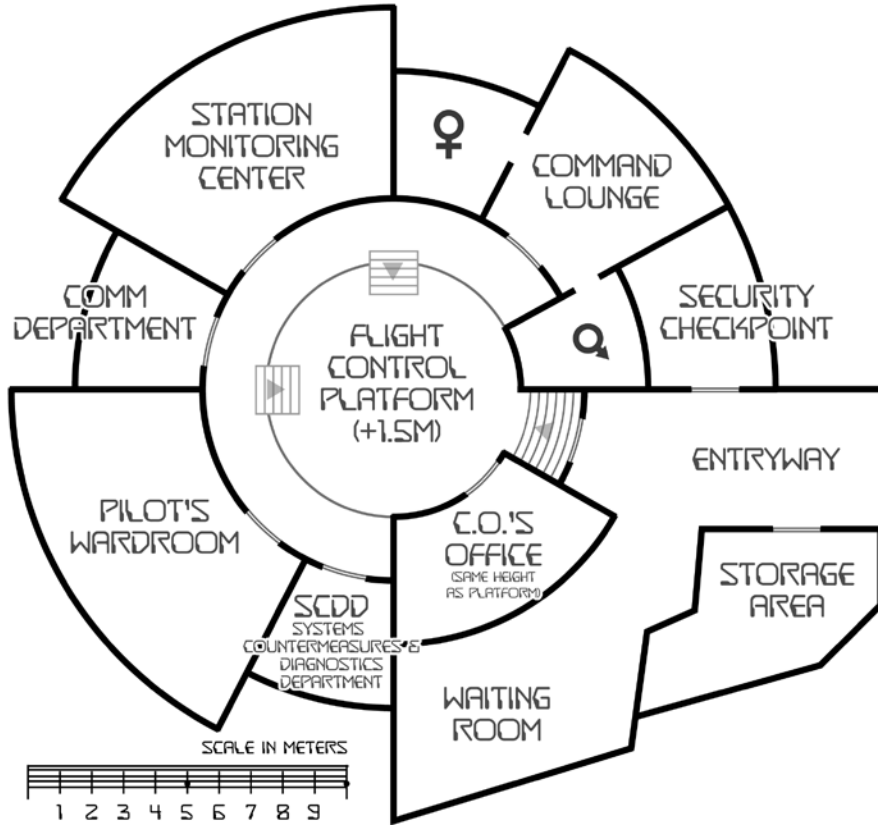
Cost Power

- 32 Military Base Computer (see Chapter Five)
- 13 Tactical Computers (see Chapter Five)
- 20 **Tactical Computers:** 15 more (total of 16)

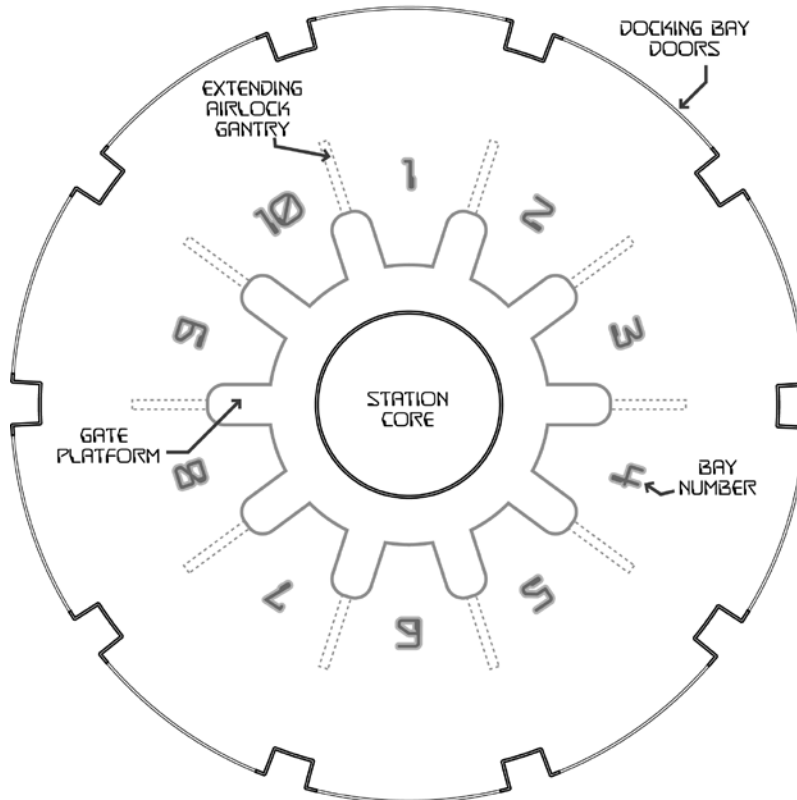
DETHRIDGE STATION



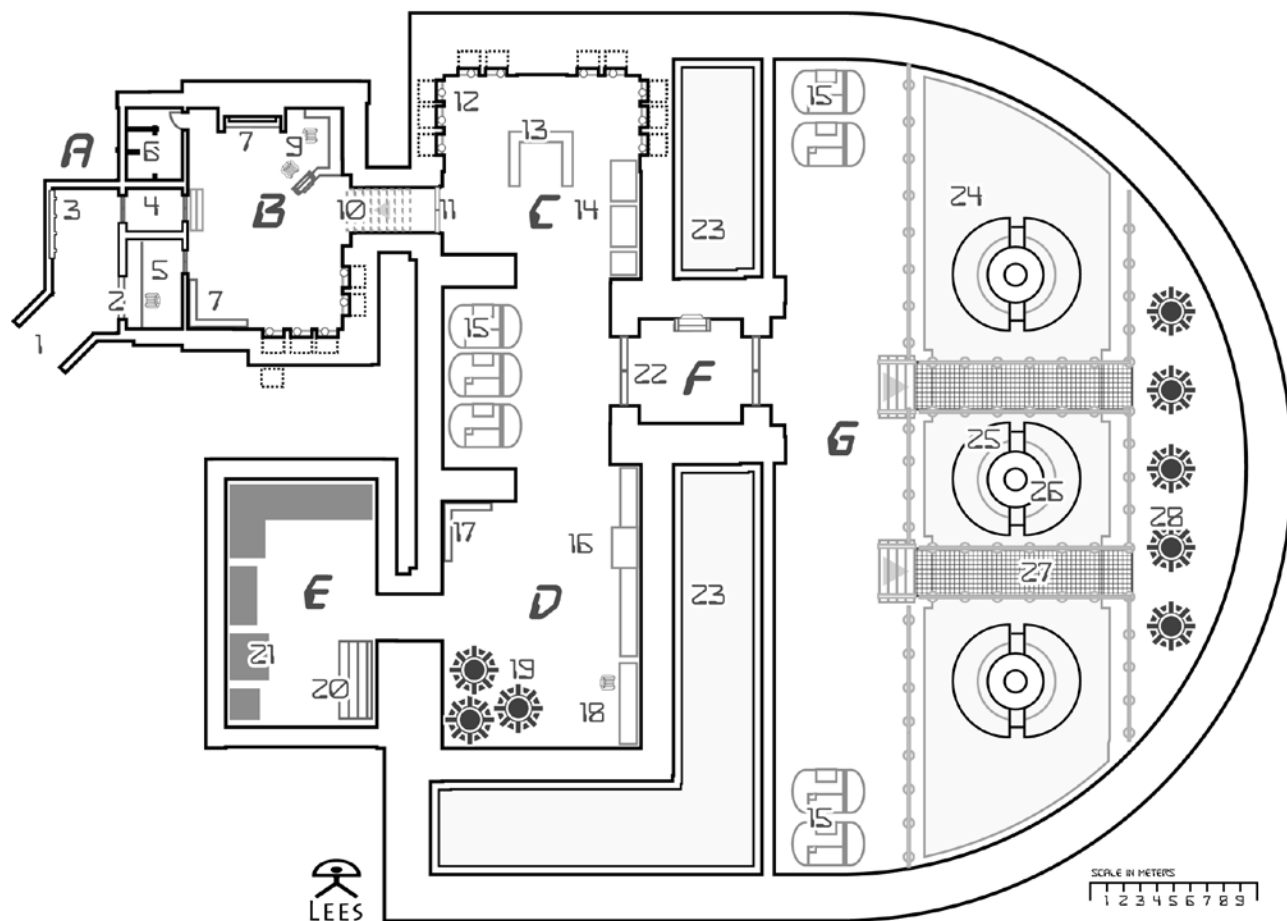
DETHRIDGE COMMAND CENTER



DETHRIDGE STATION ENCLOSED DOCKS



MALION-FIELD POWER PLANT



A: SECURITY ROOM

- 1 ENTRY TO HALLWAY
- 2 SECURITY WINDOW
- 3 ENERGY CAGE EMITTERS
- 4 SECURE ENTRYWAY
- 5 SECURITY OFFICER AREA
- 6 RESTROOM

B: POWERPLANT MONITORING

- 7 INDICATOR PANELS
- 8 BACKUP SUIT STORAGE
- 9 MAIN MONITORING STATION
- 10 RAMP (-1.6M)
- 11 REINFORCED SECURITY DOORS

C: SUITING CHAMBER

- 12 SUIT STORAGE
- 13 BENCHES
- 14 EQUIPMENT CABINETS
- 15 PRESSURIZED COOLANT TANKS

D: WATER PUMP ROOM

- 16 PUMP MASTER CONTROLS
- 17 SYSTEM DIAGNOSTIC PANELS
- 18 PUMP MONITORING STATION
- 19 DAMPENING ROD ASSEMBLY SPARES

E: ON-SITE WORKROOM

- 20 SPARE DAMPENING RODS
- 21 FABRICATION UNITS

F: INTERLOCK CHAMBER

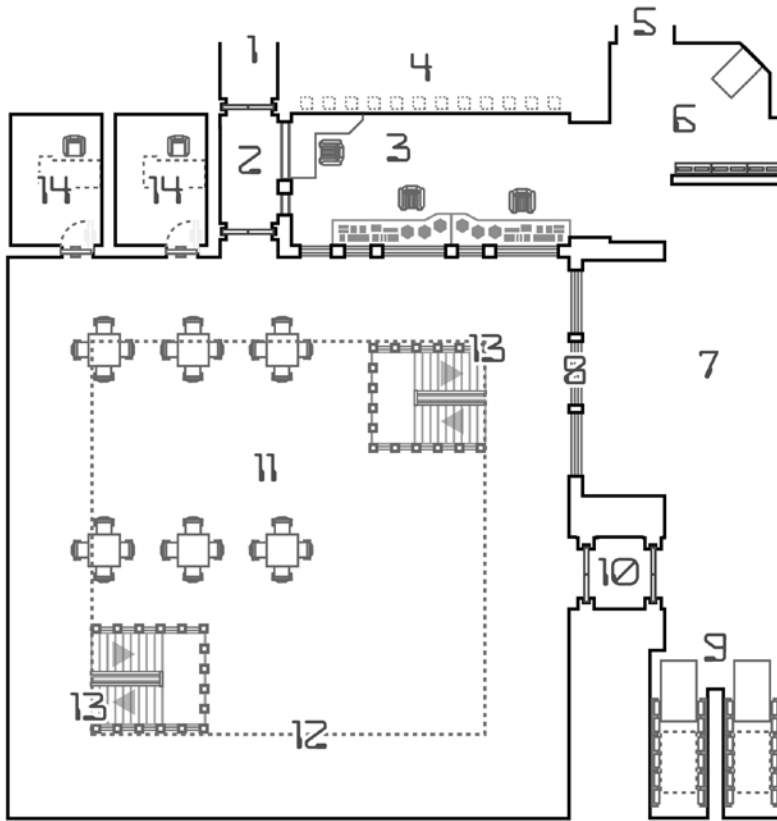
- 22 AIRLOCK CONTROL
- 23 WATERTANKS (EXTEND UNDERGROUND)

G: PULSION GENERATOR ROOM

- 24 PIT (6M DEEP, WATER 4M)
- 25 MALION TOWERS (BELOW WATER)
- 26 MALION CORE (ABOVE WATER)
- 27 CATWALK
- 28 DAMPENING ROD ASSEMBLIES

DETENTION AREA

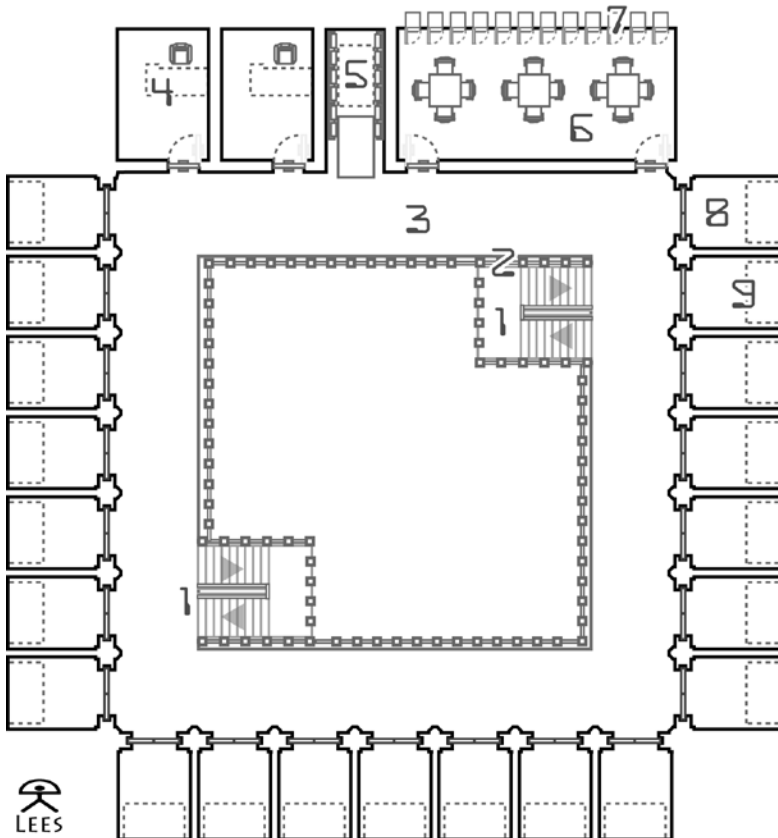
DETENTION FLOOR



- 1 PASSAGEWAY
- 2 SALLYPORT 1
- 3 MONITORING ROOM
- 4 FOOD DELIVERY SYSTEM (BEHIND WALLS)
- 5 PASSAGE TO LOCKER AREA
- 6 ARMORY
- 7 SORTIE/OBSERVATION AREA
- 8 ONE-WAY VISIPLATES
- 9 AUTODOC BAYS
- 10 SALLYPORT 2
- 11 PRISONER COMMON AREA
- 12 ROOFLINE
- 13 STAIRS
- 14 ISOLATION ROOM (W/EXTENDABLE TABLE)

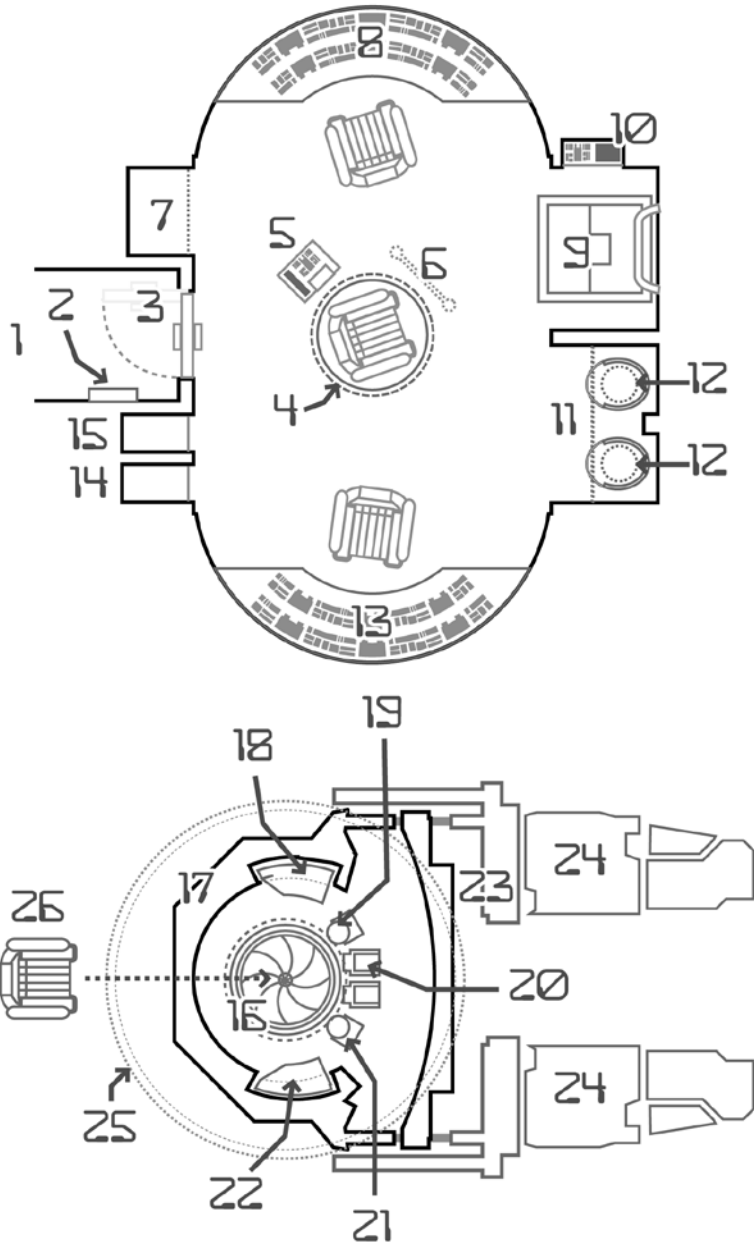


UPPER GALLERIES



- 1 STAIRWELLS
- 2 COVERED RAILINGS
- 3 CATWALK
- 4 ISOLATION ROOM
- 5 AUTODOC BAY
- 6 MESS ROOM
- 7 FOOD DISPENSERS
- 8 CELLS
- 9 EXTENDABLE BED (TYP)

GUNNERY TURRET



- 1 HALLWAY
- 2 ACCESS CONTROL PANEL
- 3 HATCH
- 4 TELESCOPING GUNNER SEAT (LOWERED POSITION)
- 5 TURRET ACCESS & MONITORING PANEL
- 6 TURRET EMERGENCY ACCESS LADDER (CEILING)
- 7 CUBBY ONE
- 8 POWER & HEAT DISTRIBUTION MONITORING
- 9 FLOOR HATCH TO UNDERBAY
- 10 UNDERBAY ACCESS & MONITORING PANEL
- 11 SPARE SUIT LOCKER
- 12 SPARE HELMETS (ON UPPER SHELF)
- 13 TRACKING & COMMUNICATIONS CONSOLE
- 14 CUBBY 2
- 15 CUBBY 3

- 16 TURRET ACCESS IRIS (FLOOR)
- 17 LOWER TURRET SHELL
- 18 WEAPON MONITORING PANEL
- 19 RIGHT STICK CONTROL
- 20 FIRING PEDALS
- 21 RIGHT STICK CONTROL
- 22 COMM PANEL
- 23 ELEVATION ARMATURE
- 24 GUNS
- 25 TRANSPARENT DOME
- 26 GUNNER'S SEAT (TURRET SHOWN IN THE "GUNNER DOWN" POSITION)



GALLE CRATER STATION

Description: Located near Galle Crater in the Argyre Planitia region of Mars, Galle Crater Station is a typical scientific outpost of the type found in many Low Science Fiction or more “realistic” Star Hero campaigns. You can easily transplant it to other locations if necessary.

Galle Crater Station was designed and built to support a small community of scientists indefinitely on a hostile planet (in this case Mars) so they could conduct research. Rather than being custom-built, it was assembled piecemeal from

modular units: large ones 12m x 15m; smaller ones 6m x 6m; and connecting hallways known to the residents as “gerbil trails.” The walls of the modules are made of metal and plastic, and are designed primarily to resist the environmental threats found on non-terrestrial worlds: fierce winds; dust- and sandstorms; corrosive atmospheres; and the like. The station also includes a greenhouse made of the same materials; some botanical research goes on there, but it’s mainly used to grow food crops for the crew.

GALLE CRATER STATION

Val Char Cost Notes

10	Size	20	80 x 40 x 40 meters; OCV+ 10
6	PD	6	
6	ED	6	
10	BODY	8	Total Characteristics Cost: 40

Cost Powers

15	Location:	Distant, Deep Wilderness	END
8	Outer Walls:	+8 PD and +8 ED	0
		Partial Coverage (-1), Only To Resist Environmental Effects (see text; -1)	

Power Systems

14	Generator:	Endurance Reserve (100 END; 30 REC)	0
		OAF Immobile (-2), Only Powers Electrical Devices (-¼)	

Operations Systems

45	Sensor And Communication Systems:	Variable Power Pool, 25 base + 30 control cost	var
		MegaScale (1 light-year per Active Point; +4¼); OAF Immobile (-2), Costs Endurance (-½), Only For Senses And Communications (-1)	
7	Long-Range Sensors:	+10 vs. Range for Radio Group	0
		OAF Immobile (-2)	
7	Internal Monitors:	Clairsentience (Sight And Hearing Groups)	3
		Multiple Perception Points (up to four at once); OAF Immobile (-2), Affected As Radio Group As Well As Sight/Hearing Groups (-¼), Fixed Perception Point (-1)	

Personnel Systems

12	Life Support:	Life Support (Self-Contained Breathing; Safe Environments: High Radiation, Intense Cold, Intense Heat, Low Pressure/Vacuum)	2
		Costs Endurance (-½)	
5	Backup Life Support:	Life Support (Self-Contained Breathing; Safe Environments: High Radiation, Intense Cold, Intense Heat, Low Pressure/Vacuum) [1cc] Only Within Defined Area (12m x 15m chamber; -2), 1 Continuing Fuel Charge (easily replaced from sources outside the Base; 1 Month [i.e., 1,800 man-days]; -0)	
7	Medical Facilities:	Paramedics 11-	0
2	Medical Facilities:	SS: Medicine 11-	0

Skills/Laboratories

7	Computer Programming 11-
7	Electronics 11-
7	Mechanics 11-
5	SS: Astronomy 14-
2	SS: Biology 11-
2	SS: Botany 11-
5	SS: Geology 14-
5	SS: Physics 14-

Total Abilities & Equipment Cost: 162

Total Base Cost: 202

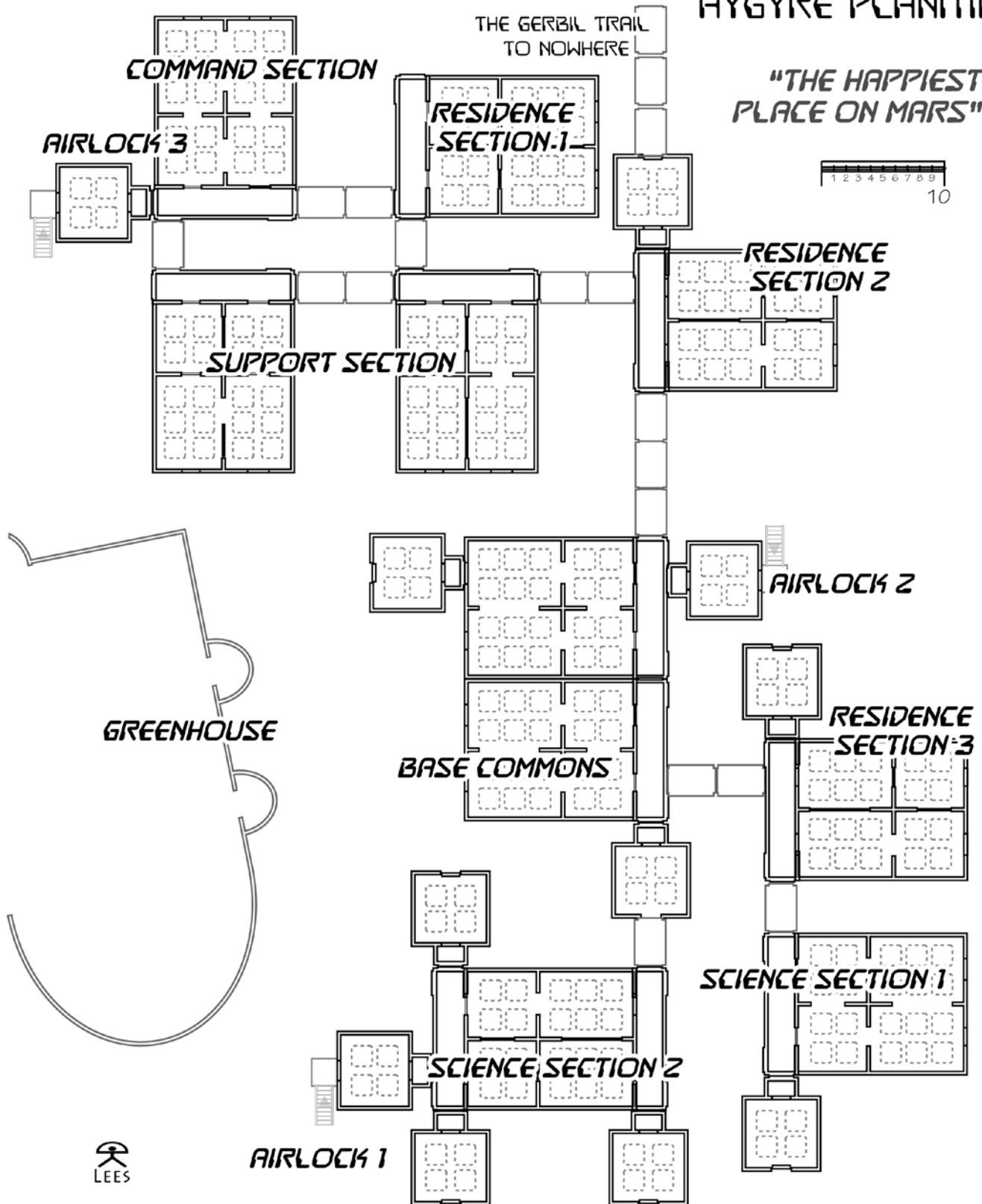
Value Complications

0	None
Total Complications Points: 0	
Total Cost: 2025 = 40	



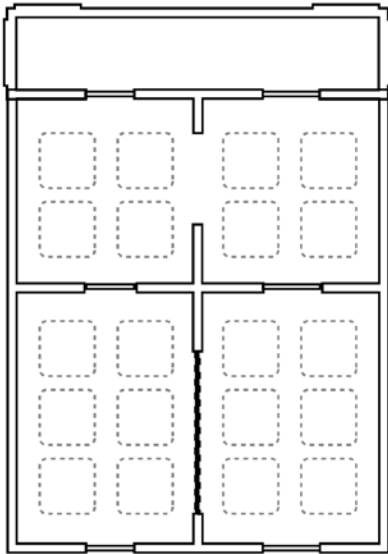
GALLE CRATER STATION

AYGYRE PLANITIA

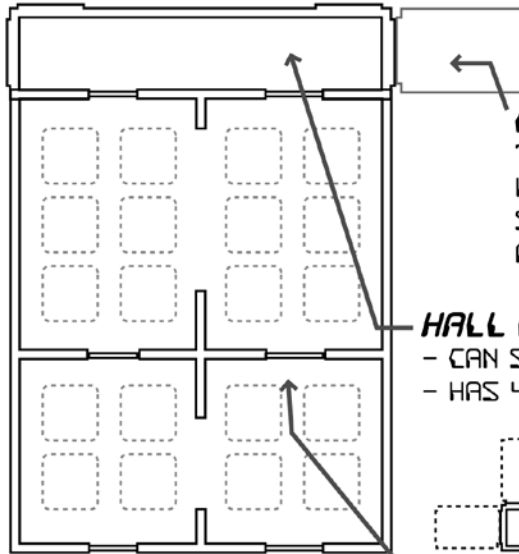


MODULAR STATION ELEMENTS

INTERIOR, STANDARD MODULES



"BOTTOM HEAVY"

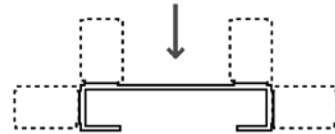


"TOP HEAVY"

THESE ARE IDENTICAL, SIMPLY PLACE CONNECTION ON OPPOSITE ENDS.

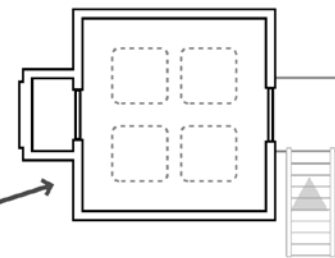
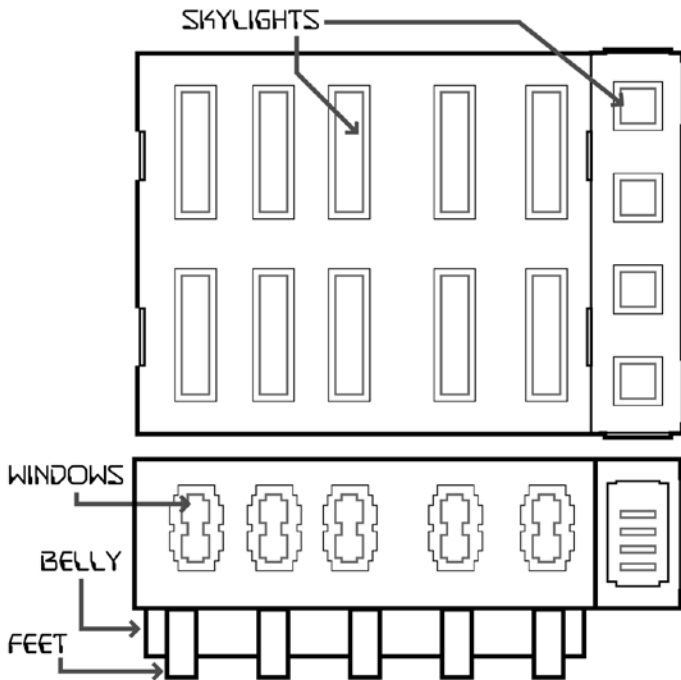
GERBIL TRAIL
THESE UNITS COME IN TRANSPARENT, SHUTTERED AND ARMORED VERSIONS

HALL CONNECTOR
- CAN SNAP ON EITHER END
- HAS 4 CONNECTOR POINTS



METAL PANELS
CAN BE USED IN WALL SECTIONS AND DOORWAYS AS NEEDED

STANDARD MODULE, EXTERIOR



MINI-MODULE
MINI-MODULES COME WITH THEIR OWN MINIGERBIL TRAIL AND CAN BE STAND-ALONE OR SPECIALIZED, LIKE THE AIRLOCK STYLE SHOWN ABOVE



TYPICAL MODULE LAYOUT

3 MODULE, 3 GERBIL TRAILS, 1 MINI-MODULE LAYOUT
 DESIGNED FOR 6-12-MAN TEAM



LEONDARIS STATION

Description: Leondaris Station, also known as Leondaris High Port, is a commercial station in deep space. Privately owned and beholden to no government, it occupies an enviable location at the intersection of two primary spacelanes in a border region between two large interstellar powers (the Terran Hegemony and the Orion Empire). Though it's not the safest of locales, Leondaris has become important enough to both legitimate and illegitimate traders that its safety is assured... more or less.

Leondaris began life as a fairly large nickel-iron asteroid. The builders, a consortium of investors with some governmental support, towed the asteroid into a stable position at the intersection of two spacelanes (at the time relatively minor ones, but the owners guessed, correctly, that they'd become much more important in time). They began carving it into the desired shape with cutting lasers. The detritus from the shaping was broken down into raw ore in processing plants built in the asteroid's heart, then used to build much of the framework for the station.

During the early stages of construction, a large "cave," known as "the Maw," was dug out of one side of the asteroid so ships would have a sheltered place to dock. By the time the upper parts of the station — the Crowns, Dome, and Ring — were largely complete, the Maw had opened up too much to provide much protection for docked ships, so the shaping of the lower half of the asteroid began. The result was the creation of the Docks, the Deck, and the Bays — the places where visiting space vessels "tie up" to the station and store cargo that's being transferred to another ship.

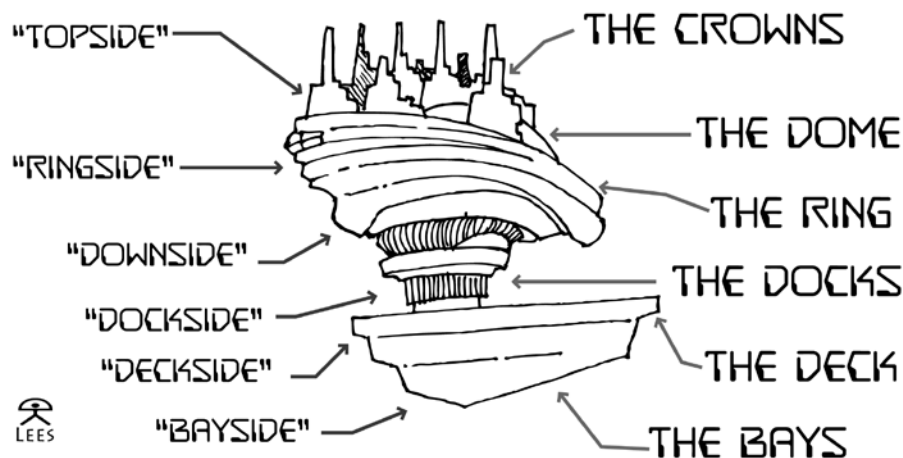
Layout

Due to the way it was constructed and the necessity of organizing specific station functions in an appropriate (and hopefully profitable) manner, Leondaris consists of a number of sections that become more prestigious (and expensive) the higher one goes. At the very top of the station is *the Crowns*, a cluster of buildings built on the asteroid's surface. The views are spectacular, the furnishings so lavish one often forgets that one is in a space station, and the expenses astronomical. Nothing on a deep space commercial station is exactly cheap, but rents and the cost of goods in the Crowns are so high that only the ultra-wealthy can afford to live here. And more than a few do; the station's location outside the jurisdiction and taxation power of any government is *very* attractive to certain individuals.

Immediately below the Crowns is *the Dome*, the large chunk of asteroidal rock that forms the main body of the station. The Dome is divided into two areas: *Topside* and *Ringside*. *Topside* is the very top of the Dome, just below the Crowns, and is only a little less expensive. *Topside* has been the center of the High Port's command and control structures and systems since the station's earliest days. Today much of it has been transformed into a park-like environment of growing trees and lush plants centered around *the Campus* — the area where the Project Coordinator/Port Coordinator/General Coordinator (the title changes depending on the timeframe) works, resides, and makes the decisions about the High Port's daily functioning.

Ringside is below *Topside*. It includes most of the station's stores and commercial facilities in a series of floors (see the Commercial Ring map for a typical example of the central, core area of one of floors; residential areas spread out around this ring). *Ringside* is a sort of "middle class" area, with features improving and expenses increasing the higher up one goes.

LEONDARIS STATION

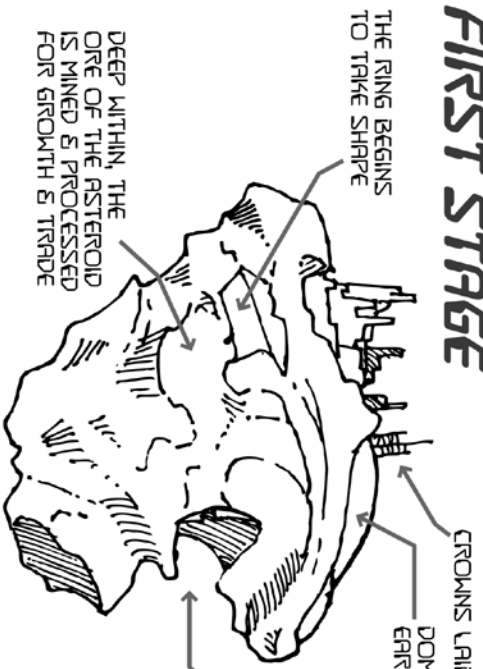


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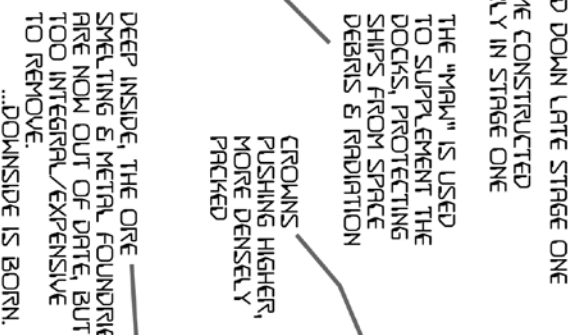
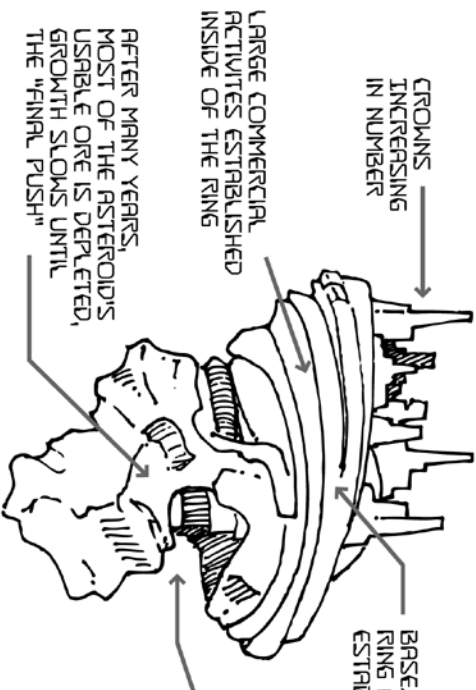
THE GROWTH OF LEONDRARIS STATION

A TALE OF THREE STAGES...

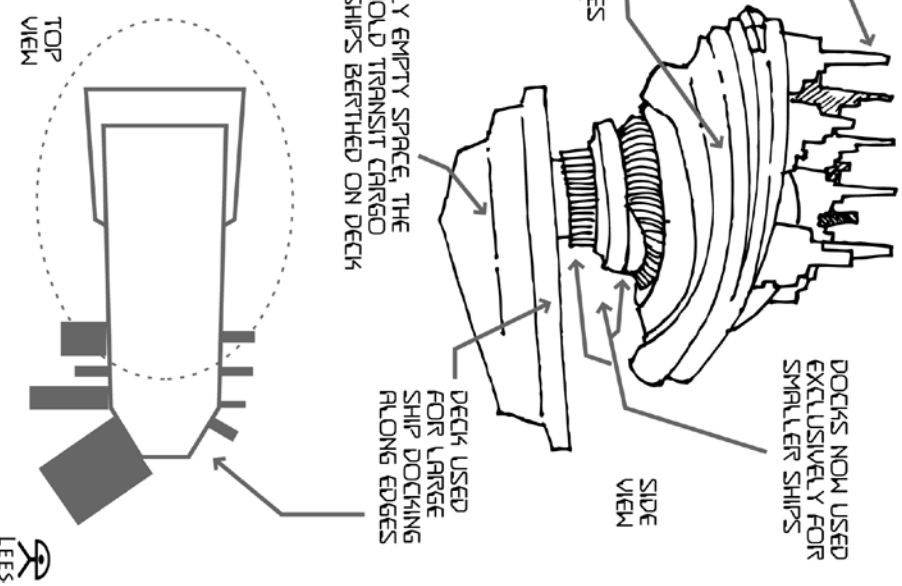
FIRST STAGE

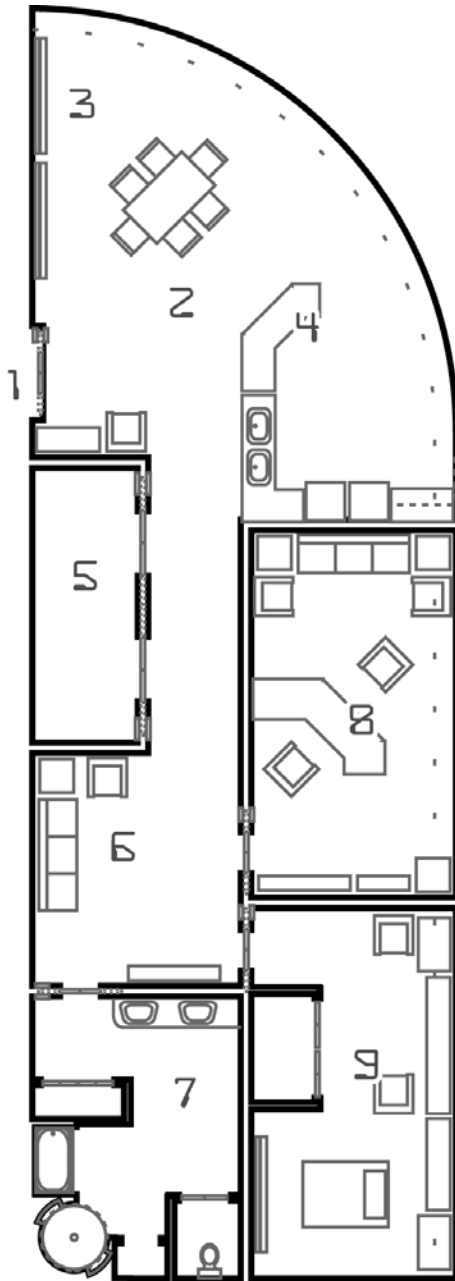


SECOND STAGE



THIRD STAGE





SCALE IN METERS



LUXURY SUITE

- 1 ENTRANCE
- 2 LIVING ROOM
- 3 VISIPLATES
- 4 KITCHEN
- 5 STORAGE AREA
- 6 ANTECHAMBER
- 7 BATH
- 8 OFFICE
- 9 BEDROOM



The “Luxury Suite” map shows the typical residential area found in Topside or the upper Ringside. The lower one goes below that, the smaller and less comfortable rooms become.

Below Ringside and above Dockside is *the Downside*, where most of the working-class residents of the station live. Much of this part of the station was originally the gigantic manufacturing facilities used by the High Port to slowly gobble up the asteroid. As the station was slowly completed, the need for the materials processing plants decreased. Over time these areas were decommissioned. For awhile they were used for other station purposes, but eventually the station owners sold them cheap, one at a time, to the Downsiders... and those who prey upon them. Overall it’s a dark, dank place where things often have a rough, kludged-together look. The average resident of the Crowns and Topside (and the upper parts of Ringside) thinks of the Downside with a sort of dread and never goes there if he can avoid it.

Dockside is the narrower “cylinder” below the main body of the station; it’s where small- and medium-sized ships dock to the station. A few dockworkers live in this part of the station, but most “commute” to work from the Downside. Below Dockside is *Decksides*, an open-to-space flat surface where large ships can dock, and *Bayside*, the mostly-hollow interior of Decksides where cargo is stored.

The station gets its energy from a Hyperonik Generator, a relatively safe power generation system. Due to the hyperonik radiation given off by the system, anyone working near the cores has to wear a “soft suit” (which provides Life Support (Safe Environment: High Radiation)). Even without the suit, though, it would take a long period of exposure for someone to suffer serious radiation poisoning. The founders of Leondaris chose hyperonik power because the generator consumes the fuel it runs on in the conversion process, leaving a minimum of waste material. What remains is stored in a special vault accessed from the generator roomn’s sublayer. Every two years the station hires a waste removal ship to pick the stuff up and dump it into the nearest sun.

LEONDARIS STATION

Val Char Cost Notes

25	Size	50	64 x 32 x 32 km; OCV+ 20
12	PD	15	
18	ED	24	
10	BODY	8	Total Characteristics Cost: 97

Cost Powers

		END
35	Location: Distant, Outer Space	
3	Hull: +4 BODY	0
	Partial Coverage (exterior walls only; -¼)	
1	Positioning Thrusters: Flight 5m	5
	OAF Immobile (-2), Extra Time (1 Turn; -1¼), Increased Endurance Cost (x5 END; -2)	

Power Systems

211	Hyperonik Power Generator: Endurance Reserve (750 END, 750 REC)	0
	OAF Immobile (-2), Only Powers Electrical Devices (-¼)	
5	Backup Hyperonik Generator: a second Endurance Reserve (800 END, 80 REC)	0

Tactical Systems

57	Defensive Lasers: RKA 5d6	19
	Armor Piercing (+¼), Autofire (2 shots; +¼), MegaScale (1m = 1km; +1); OIF Immobile (-1½), Beam (-¼), Limited Arc Of Fire (180 Degrees; -¼), Real Weapon (-¼)	
20	Defensive Lasers: fifteen more Lasers (total of 16)	19

Operations Systems

86	Sensor And Communication Systems: Variable Power Pool, 60 base + 40 control cost	var
	MegaScale (1 light-year per Active Point; +4¼); OAF Immobile (-2), Costs Endurance (-½), Only For Senses And Communications (-1)	
7	Long-Range Sensors: +10 versus Range for Radio Group	0
	OAF Immobile (-2)	
10	Internal Monitors: Clairsentience (Sight And Hearing Groups)	4
	Multiple Perception Points (up to eight at once); OAF Immobile (-2), Affected As Radio Group As Well As Sight/Hearing Groups (-¼), Fixed Perception Point (-1)	
46	Tractor Beams: Telekinesis (100 STR)	15
	OIF Immobile (-1½), Affects Whole Object (-¼), Limited Arc Of Fire (60 Degrees forward; -½)	
20	Tractor Beams: fifteen more Tractor Beams (total of 16)	15

Personnel Systems

12	Life Support: Life Support (Self-Contained Breathing; Safe Environments: High Radiation, Intense Cold, Intense Heat, Low Pressure/Vacuum)	2
	Costs Endurance (-½)	
5	Backup Life Support: Life Support (Self-Contained Breathing; Safe Environments: High Radiation, Intense Cold, Intense Heat, Low Pressure/Vacuum)	[1cc]
	Only Within Defined Area (20m x 20m chamber; -2), 1 Continuing Fuel Charge (easily replaced from sources outside the Base; 1 Month [i.e., 1,800 man- days]; -0)	
15	Backup Life Support: 7 more Backup Life Support areas (total of 8)	[1cc]
3	Food Dispenser System: Life Support (Diminished Eating: no need to eat)	[1cc]
	1 Continuing Fuel Charge (easily replaced from sources outside the Base; 1 Year [i.e., 60 man- years]; -0)	
15	Artificial Gravity: Telekinesis (20 STR)	3
	Selective (+½); OIF Immobile (-1½), Only To Pull Objects Straight Down To The Floor (-1)	
2	Backup Artificial Gravity: Telekinesis (5 STR); OIF Immobile (-1½), Only To Pull Objects Straight Down To The Floor (-1)	1
13	Medical Facilities: Paramedics 14-	0
5	Medical Facilities: SS: Medicine 14-	0

Total Abilities & Equipment Cost: 571

Total Base Cost: 668

Value Complications

0	None
Total Complications Points: 0	
Total Cost: 668/5 = 134	

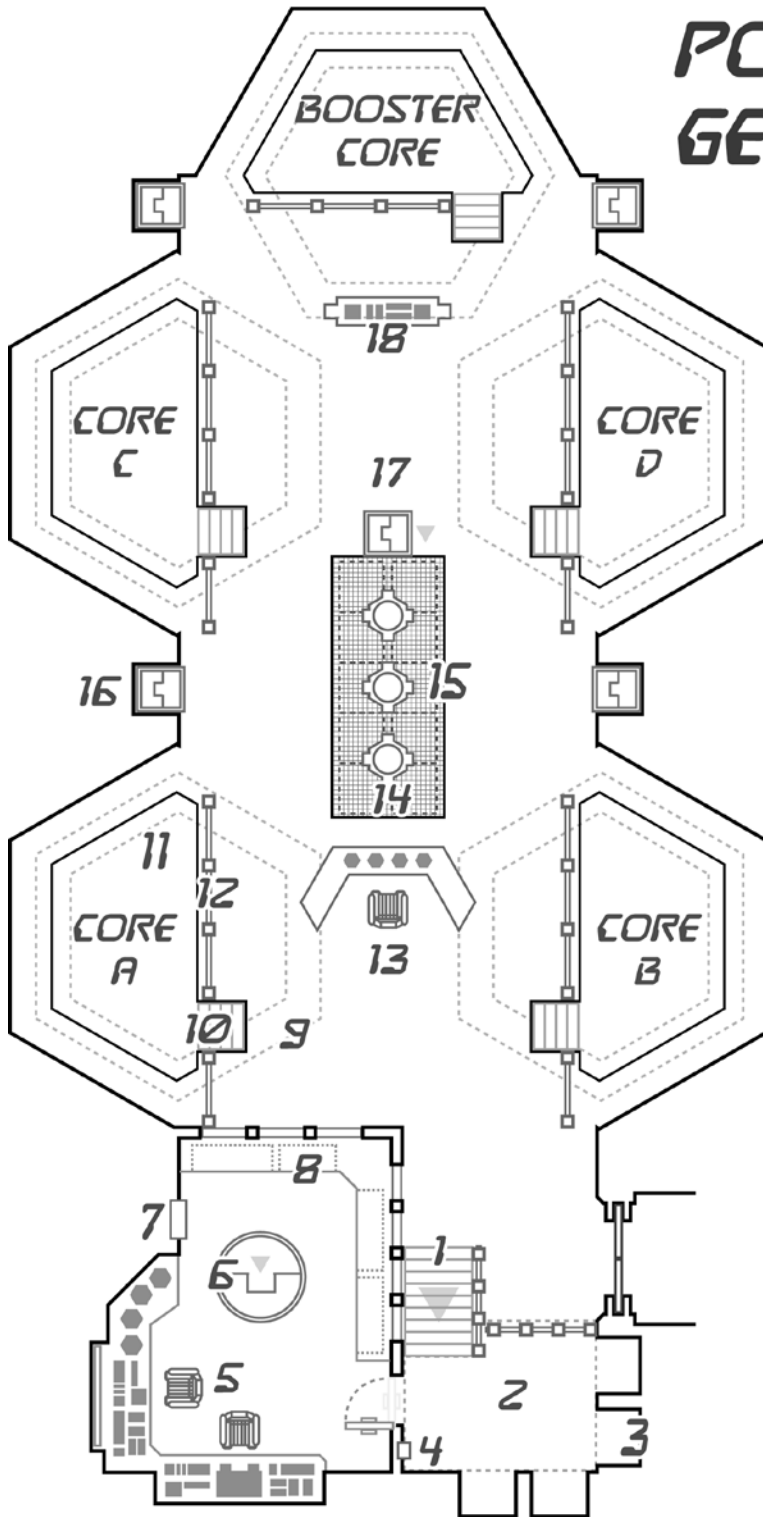
OTHER EQUIPMENT

Cost Power	
20	Elevators (20)



HYPERONIK POWER GENERATOR

4



OPERATIONS PLATFORM

1. STAIRS TO OPERATIONS PLATFORM
2. ELEVATED PLATFORM (OPEN)
3. PROTECTIVE SUIT NICHES
4. CONTROL ACCESS PAD
5. GENERATOR MONITORING & CONTROL STATIONS
6. MAINTENANCE HATCH
LEADS DOWN TO SUBLEVELS
7. PRIMARY BREAKERS
8. CORNER BENCH
W/ EQUIPMENT STORAGE SEATS

POWERPLANT FLOOR

9. CORE OUTLINE (NOT VISIBLE)
THE CORES ARE LOCATED IN SUBLEVEL
10. OPERATOR STAIRS TO
"CORE POOL" (TYP)
11. CORE POOL (TYP)
12. RAILING (TYP)
13. FLOOR MONITORING
& CONTROL CONSOLE
14. INTERMIX REACTION
CONTROL CYLINDER (TYP)
(APPROX 2M)
15. GRATED FLOOR
DARKER DOTTED LINES INDICATE
REMOVABLE SERVICE SECTIONS
OF THE GRATING
16. RECESSED HATCH
INTO SUBLAYER
17. INTERMIX CHAMBER
ACCESS HATCH
18. BOOSTER CORE CONTROL
& MONITORING CONSOLE

SCALE IN METERS



Specific Locations

Leondaris Station is a huge place, with so many stores, service providers, and other commercial enterprises that it's virtually impossible for any one person to keep track of them all. Here are closer looks at a few that PCs might find interesting. Their special features are noted and described, but not included on the station's character sheet because they're paid for by the owners/renters of these locations, not the overall station. (In effect you can think of these places as "sub-Bases" located within the overall Base of Leondaris Station.)

ASTRO SPROCKET'S

Located on one of the middle rings of Ringside, and thus equally accessible to upper-class residents in search of a fun, cheap meal and lower middle class Ringsiders looking for an affordable dinner, Astro Sprocket's is one of the most popular restaurants in Leondaris Station. Established as a small eatery early in the station's history, it's grown to become a full-fledged restaurant open 24 hours a day.

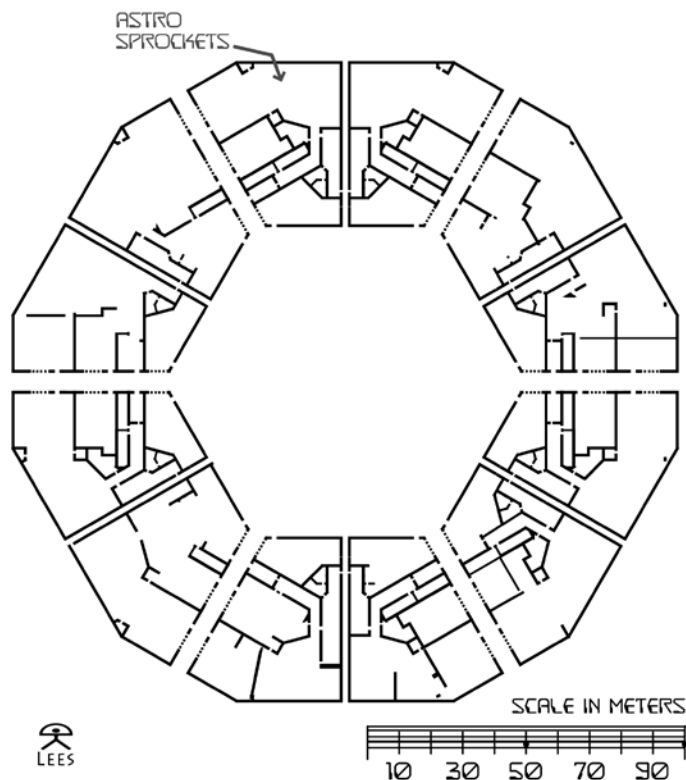
The founder and owner of the place is Allen "Astro" Chen. He came to Leondaris to work as a mechanic during the station's construction, but an unfortunate accident mangled one of his legs, leaving him unable to work. (He had it replaced with a robotic limb when he became wealthy; now he walks normally.) Desperate for a way to earn a living, he opened up a small café... and the rest, as they say, is history.

Today Astro (as he's known to one and all, from the Crowns to Docksides) is a wealthy resident of Topside (he refuses to move to the Crowns; he thinks people there are too snooty for their own good). He comes to work every day but mostly goofos around in his office and takes naps. The real day-to-day work of running the restaurant he leaves in the capable hands of his two chief employees, Jaine Tisbet (manager) and Jorge Rodriguez (head cook). Jaine and Jorge argue *constantly* about every little thing, but it's just their way of getting along; though neither would admit it, each of them likes and respects the other.

"Astro's" (as it's usually known around Leondaris) offers musical entertainment from its stage (#7). Usually a robotic band plays, but occasionally Astro hires a live band for a change of pace. Holidays and special occasions (such as Founder's Day, the annual celebration of the official opening of Leondaris) always merit a living band. The immensely popular band Crab Nebula was "discovered" here by a recording executive, and rumor has it the band sometimes comes back in disguise to play a laid-back gig as a way of paying Astro back for their "big break."

Astro also owns two other businesses located in rooms next to his restaurant. The first is *Rosie's Bot-tique*, which sells personal-use and small commercial robots — maid and butler androids, personal assistant bots, office work robots, and the like. The other is *The Spacely Scrounger*, a store that sells used and salvaged gear of the sort favored by spacers: clothing, tools, and the like (but no weapons).

COMMERCIAL RING LEONDARIS STATION

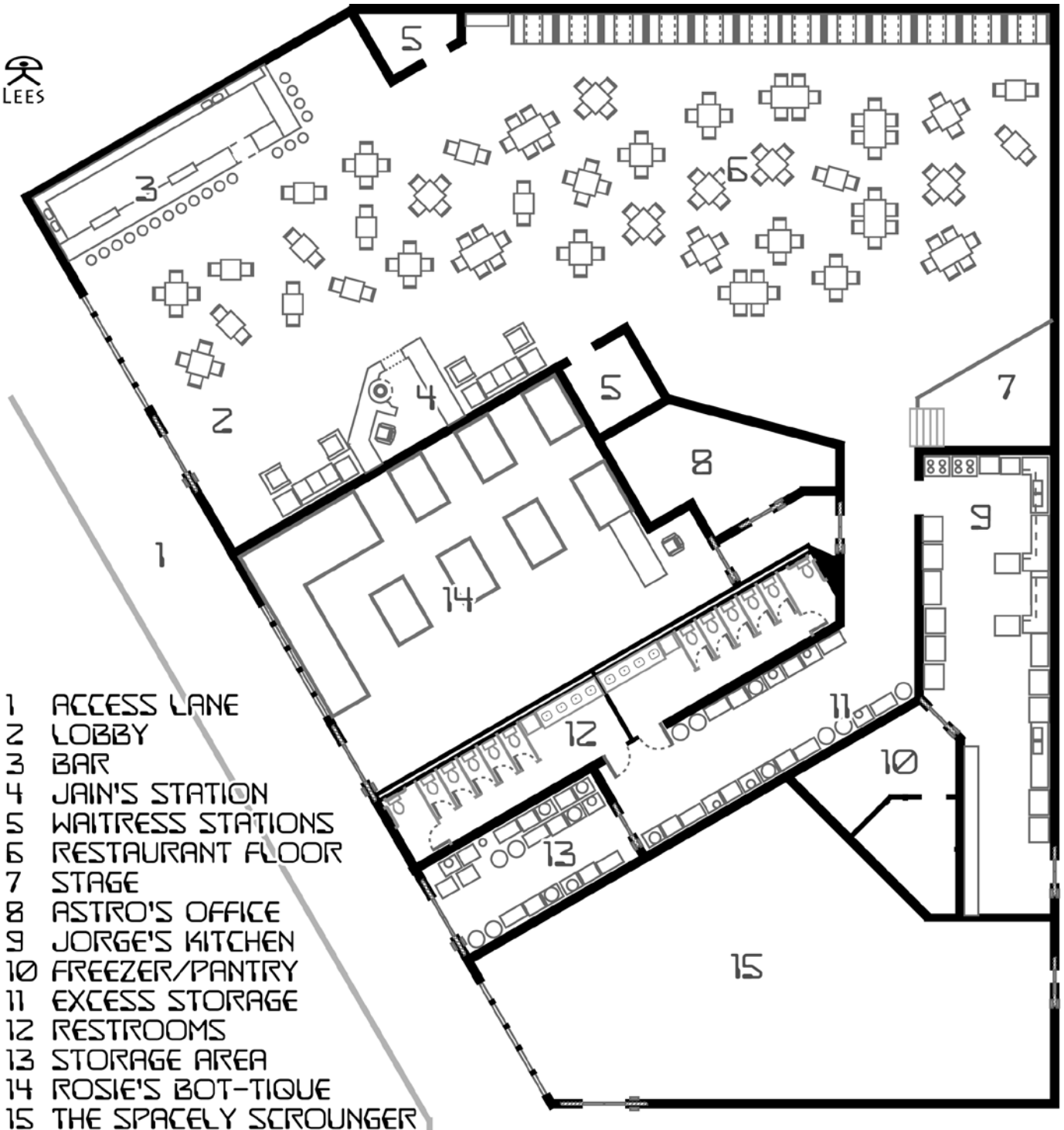


THE IMPERIAL BANK

It's said that the only institution in the Galaxy with a further reach than the Orion Empire is its main financial institution, the Imperial Bank. Perhaps Leondaris Station is proof, since it lies outside the boundaries of the Empire but still has an Imperial branch located about two-thirds of the way up Ringside.

The Leondaris Branch of the Bank is fairly typical. It includes a lobby, an area where customers can interact with tellers, lots of safety deposit boxes and secure rooms to examine their contents in, and offices for bank personnel. It has a vault (PD 20, ED 28, BODY 20 walls) with a sensorgrid in the floor to monitor the presence of anyone in it. In the vault, and at #23 outside, there are concealed auto-guns (RKA 2d6, +1 STUN Multiplier, Autofire (5); or Blast 3d6, Autofire (5)) that respond swiftly and with accuracy to robberies or other disturbances; they fire laser or stunner blasts depending on the situation.

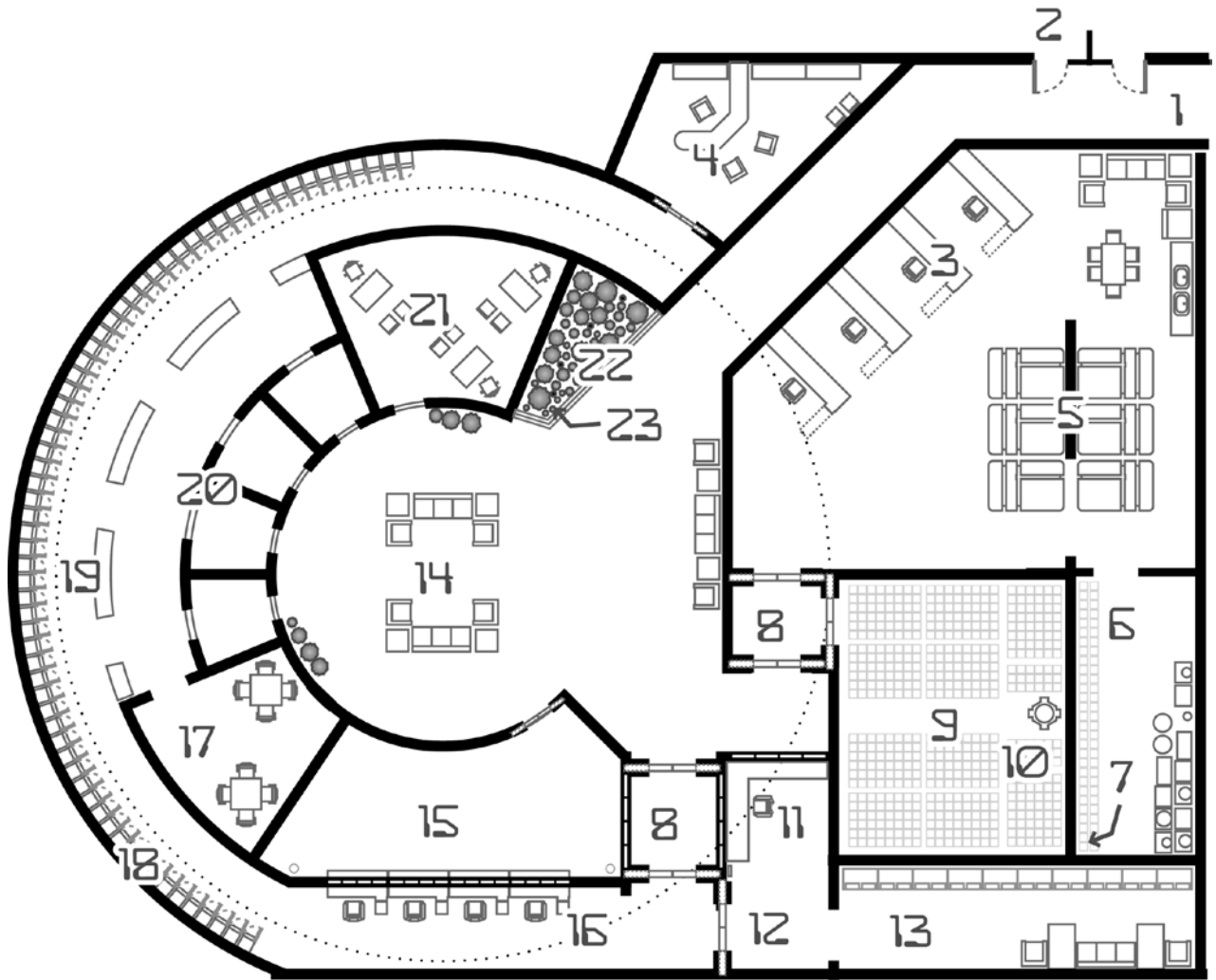




- 1 ACCESS LANE
- 2 LOBBY
- 3 BAR
- 4 JAIN'S STATION
- 5 WAITRESS STATIONS
- 6 RESTAURANT FLOOR
- 7 STAGE
- 8 ASTRO'S OFFICE
- 9 JORGE'S KITCHEN
- 10 FREEZER/PANTRY
- 11 EXCESS STORAGE
- 12 RESTROOMS
- 13 STORAGE AREA
- 14 ROSIE'S BOT-TIQUE
- 15 THE SPACELY SCROUNGER



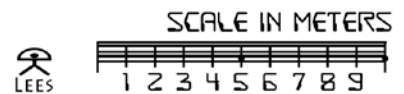
ASTRO SPROCKET'S



THE IMPERIAL BANK

LEONDARIS BRANCH

- | | | | |
|----|------------------------|----|-------------------------------|
| 1 | ENTRANCE HALLWAY | 14 | LOBBY |
| 2 | RESTROOMS (NOT SHOWN) | 15 | CUSTOMER SERVICE LOBBY |
| 3 | BRANCH MANAGERS OFFICE | 16 | CUSTOMER SERVICE STATIONS |
| 4 | ACCOUNTING AREA | 17 | SECURE LOUNGE |
| 5 | SECURED DATA STORAGE | 18 | DEPOSIT BOXES |
| 6 | STORE ROOM | 19 | CUSTOMER SERVICE WORKROOM |
| 7 | SENSORGRID SUB-FLOOR | 20 | DEPOSIT BOX EXAMINATION ROOMS |
| 8 | SECURE ENTRYWAYS | 21 | ACCOUNT ADVISING |
| 9 | THE MAIN VAULT | 22 | RAISED PLANTBOX |
| 10 | INTERIOR AUTOGUNS | 23 | DISGUISED AUTOGUNS |
| 11 | SECURITY STATION | | |
| 12 | SECURITY ENTRANCE | | |
| 13 | SECURITY LOCKER/LOUNGE | | |



THE BACKBLAST

The Downside is full of places where people can hang out in anonymity, transact business that's perhaps not so legal, or satisfy all sorts of strange, even illicit desires. The Backblast is a perfect example.

The Backblast is a bar where the desperate, the down-on-their-luck, and the hardcases spend time and credits. It was originally a section of one of the manufacturing facilities built inside the asteroid to help construct Leondaris. As a result the decor and feel of the place definitely look pieced together. The interior walls and floors are brushed steel plates from a former ore processor. The restroom was made from the processor's old firing chamber, outfitted with spare-part hatches from old ships for stall doors and a welded deckplate wall to separate the men from the ladies. Various niches have been drilled out of the walls here and there, such as the hidey holes used behind the bar to store real liquor (sometimes even in glass bottles) and the weapon lockers where the "hat" check girl takes patrons' guns and locks them away for everyone's security. (The owners and patrons think, accurately, that many visitors smuggle in

small weapons, but the "no guns" policy at least prevents major firepower from making its way into the bar.)

The furniture and decorations likewise show an eclectic mix of salvaged style. Many of the chairs are flight chairs that have been ripped from a variety of decommissioned vessels. Pictures of old, noble vessels line many of the walls, particularly the "Wall of Honor," which also features pictures of spacers who helped make Leondaris a blip on the screen, men like T-Sawt Radner and Stretch Estevan. Near the Wall stands the Drinking Piano, an honest-to-goodness old Earth standup piano that came from someplace called "Cleveland." Across the bar from the piano is a Sonic Whisperfield where two or three patrons can have a conversation without anyone overhearing them (Darkness to Hearing Group with a Hole In The Middle).

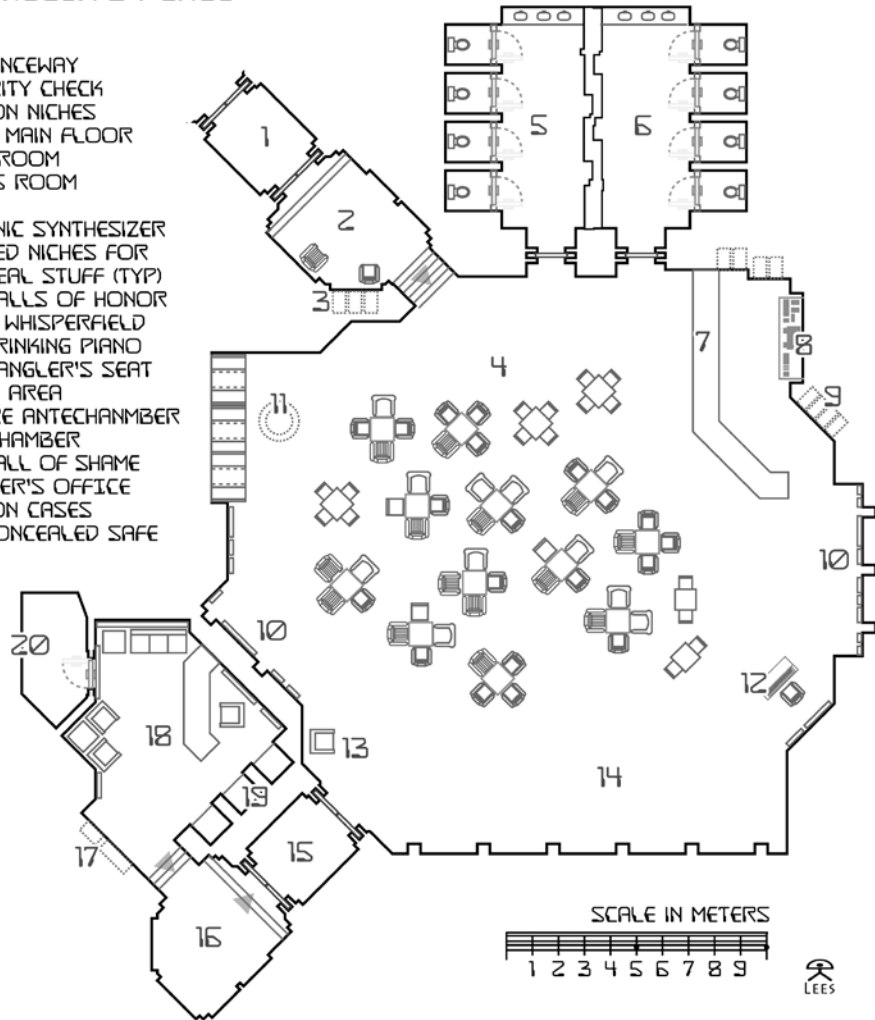
The owner of the Backblast is Arissa "Tangler" Moore, a one-time petty gunsel (and, some, people claim, now a major figure in the Leondaris underworld). Her literal former partner in crime, Jane "Mangler" Lewis, hangs out in the bar to provide some extra security and keep up with her favorite hobby, abusing her liver with alien alcohol.



THE BACKBLAST

AKA *TANGLER'S PLACE*

1. ENTRANCEWAY
2. SECURITY CHECK
3. WEAPON NICHES
4. BAR'S MAIN FLOOR
5. MENS ROOM
6. LADIES ROOM
7. BAR
8. ORGANIC SYNTHESIZER
9. DRILLED NICHES FOR THE REAL STUFF (TYP)
10. THE WALLS OF HONOR
11. SONIC WHISPERFIELD
12. THE DRINKING PIANO
13. THE MANGLER'S SEAT
14. DANCE AREA
15. SECURE ANTECHAMBER
16. ANTECHAMBER
17. THE WALL OF SHAME
18. TANGLER'S OFFICE
19. WEAPON CASES
20. THE CONCEALED SAFE



In the back, past the formidable Mangler Lewis, is a rabbit-warren of antechambers that wind down to Tangler's office, which is a much classier-looking place than one would expect... though it's still obviously a machinery module from some former ore-processing plant. Here she keeps not only the bar's books but a "Wall of Shame" with niches holding mementoes of her past career (the brass urn holding the remains of her former Boss is her favorite). She also has an impressive array of firepower and a concealed safe (Behind a painting of the King of Nashville from Old Earth); rumor claims she hides all sorts of treasures there.

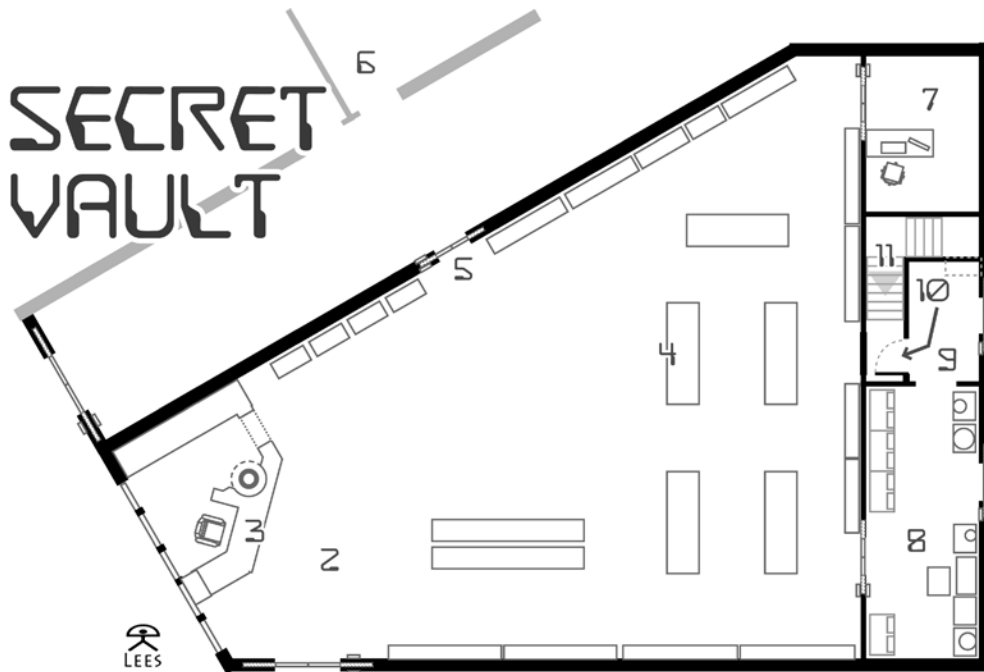
THE SECRET VAULT

On the lowest level of Ringside there's a liquor store. It doesn't have a name; everyone just calls it "Shorty's Liquors" after the name of its owner, a rather irascible alien who's never bothered to

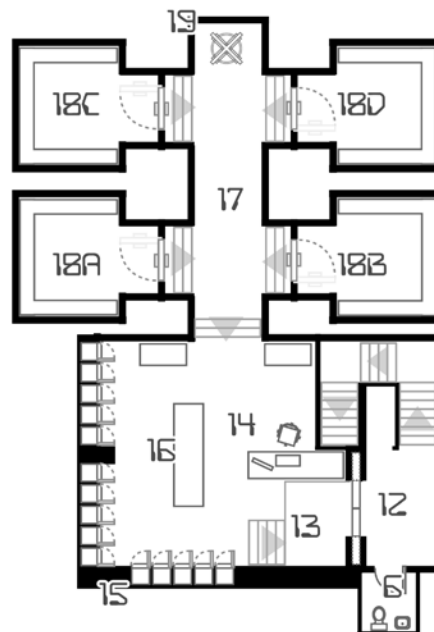
tell anyone his real name. The store isn't very well stocked, but its prices are pretty low for Leondaris, so business is often brisk.

But selling liquor isn't Shorty's real business. In truth he's a vital cog in the High Port's black market economy. The liquor store is a front — or perhaps more accurately, a top. Just below it, in what's technically the Downside, Shorty built a secret, high-security vault. He makes this vault available to people who have valuables to store but want to avoid dealing with banks, governments, or the like. His rental fees are steep, but the service has been, so far at least, impeccable.

To re-assure his customers that everything's being done to protect their goods, Shorty bought a top-of-the-line security robot to oversee the vault. In addition to providing administrative help when needed, the robot's heavily armored and has an arsenal's worth of built-in weaponry to use on would-be robbers.



- 1 ACCESS LANE
- 2 STORE ENTRANCE/CHECK-OUT
- 3 TRANSACTION COUNTER
- 4 PRODUCT SHELVING (TYP)
- 5 EXIT TO SERVICE AREA
- 6 RESTROOM FACILITIES
- 7 BACK OFFICE
- 8 STOREROOM
- 9 MAINTENANCE CLOSET
- 10 SECRET DOOR
- 11 STAIRS TO SUB-VAULT
- 12 SUBVAULT "LOBBY"
- 13 INTERIOR PLATFORM
- 14 SECURITY CONTROL AREA
- 15 WALL-MOUNTED DEPOSIT BOXES
- 16 TABLES (TYP)
- 17 MAIN VAULT PASSAGE
- 18 VAULTS, A-D
- 19 SECURITY ROBOT



SCIENCE BASE 34782

Description: If Galle Crater Station is a scientific research outpost appropriate to Low Science Fiction Campaigns, Science Base 34782 is its equivalent for High Science Fiction (or “Space Opera”) campaigns. But it has a strange secret that makes it more than just a science station.

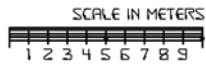
To all appearances, 34782 is an ordinary science station of the kind built by the thousands by the Science Ministry of the Galactic Commonwealth. It’s a two-story dome with an access hallway. The first floor includes the laboratories and aeroponics area (“the greenhouse,” as it’s known to the residents); the second floor features eight rooms for the Base’s personnel. The research performed at 34782 isn’t exactly groundbreaking, but it helps to expand the Commonwealth’s knowledge of the planets it controls and the physical laws underlying the structure of the Universe.

But 34782’s true purpose isn’t science. The planet it’s located on is relatively close to the territory of two of the Commonwealth’s rivals/enemies, the Hrodak Confederacy and the Zargandian Empire. The outpost was established not at the behest of the Science Ministry but pursuant to orders issued by the CIS, the Commonwealth Intelligence Service, because it serves as cover for a covert listening post. Not even the scientists working at 34782 know the Base’s real purpose; the espionage agents assigned to the secret “basement” don’t mingle with them and come and go by secret routes. The conditions are cramped and not entirely comfortable, but the agents know they’re performing work that’s vital to the safety and security of the Commonwealth, so they put up with the hardships and do their duty.

SCIENCE BASE 34782

FOR PUBLIC CONSUMPTION

4



4.5M CEILING LINE

2ND LEVEL BALCONY

LEVEL ONE

1ST LEVEL ACCESSWAY

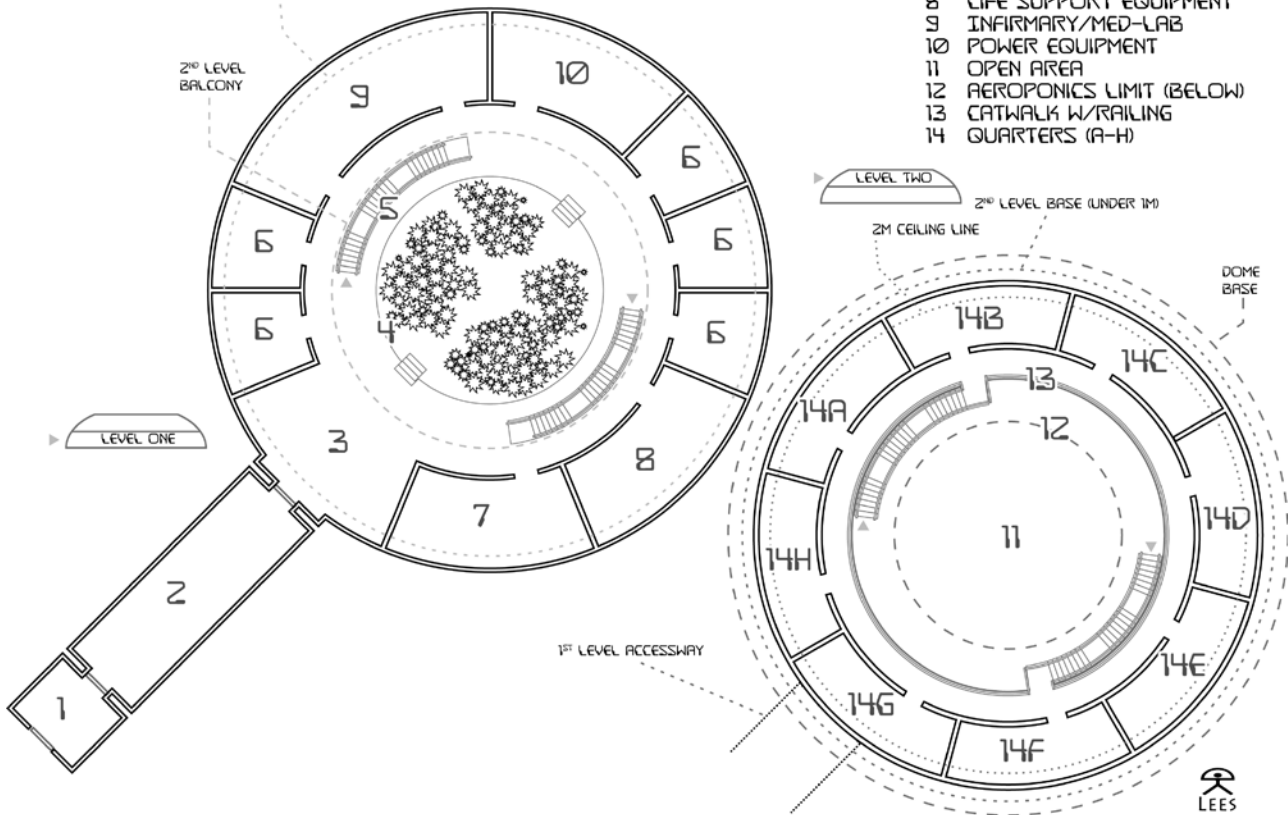
LEVEL TWO

2ND LEVEL BASE (UNDER 1M)

2M CEILING LINE

DOME BASE

- 1 ENTRANCE AIRLOCK
- 2 ACCESSWAY/STORAGE AREA
- 3 VESTIBULE & COMMON
- 4 SUNKEN AEROPONICS
- 5 WINDING STAIR (TYP)
- 6 LABORATORIES
- 7 KITCHEN/MESS AREA
- 8 LIFE SUPPORT EQUIPMENT
- 9 INFIRMARY/MED-LAB
- 10 POWER EQUIPMENT
- 11 OPEN AREA
- 12 AEROPONICS LIMIT (BELOW)
- 13 CATWALK W/RAILING
- 14 QUARTERS (A-H)



SCIENCE BASE 34782

Val Char Cost Notes

5	Size	10	25 x 12.5 x 12.5 meters; OCV+ 7
8	PD	9	
8	ED	9	
10	BODY	8	Total Characteristics Cost: 36

Cost Powers

15	Location:	Distant, Deep Wilderness	
8	Outer Walls:	+8 PD and +8 ED	0
		Partial Coverage (-1), Only To Resist Environmental Effects (-1)	
21	Hidden Espionage Base:	Concealment 18-	

Power Systems

44	Pulsion Power Generator:	Endurance Reserve (300 END, 100 REC)	0
		OAF Immobile (-2), Only Powers Electrical Devices (-¼)	
10	Backup Generators:	two additional Endurance Reserves (100 END, 25 REC)	0

Operations Systems

133	Sensor And Communication Systems:	Variable Power Pool, 100 base + 50 control cost	var
		MegaScale (1 light-year per Active Point; +4¼); OAF Immobile (-2), Costs Endurance (-½), Only For Senses And Communications (-1)	
7	Long-Range Sensors:	+10 versus Range for Radio Group	0
		OAF Immobile (-2)	
3	Enhanced Sensors/Communications:	+4 to Systems Operation roll	0
		OAF Immobile (-2)	
10	Internal Monitors:	Clairsentience (Sight And Hearing Groups)	4
		Multiple Perception Points (up to eight at once); OAF Immobile (-2), Affected As Radio Group As Well As Sight/Hearing Groups (-¼), Fixed Perception Point (-1)	

Personnel Systems

12	Life Support:	Life Support (Self-Contained Breathing; Safe Environments: High Radiation, Intense Cold, Intense Heat, Low Pressure/Vacuum)	2
		Costs Endurance (-½)	
5	Backup Life Support:	Life Support (Self-Contained Breathing; Safe Environments: High Radiation, Intense Cold, Intense Heat, Low Pressure/Vacuum)	[1cc]
		Only Within Defined Area (20m x 20m chamber; -2), 1 Continuing Fuel Charge (easily replaced from sources outside the Base; 1 Month [i.e., 1,800 man-days]; -0)	
10	Backup Life Support:	three more Backup Life Support areas (total of 4)	[1cc]
3	Food Dispenser System:	Life Support (Diminished Eating: no need to eat)	[1cc]
		1 Continuing Fuel Charge (easily replaced from sources outside the Base; 1 Year [i.e., 60 man-years]; -0)	
13	Medical Facilities:	Paramedics 14-	0
5	Medical Facilities:	SS: Medicine 14-	0
20	Galactic ComputerNet Access:	KS: Everything 50-	0
		OAF (computer terminal; -1)	

Skills/Laboratories

13	Computer Programming	14-
17	Cryptography	16-
13	Electronics	14-
7	Mechanics	11-
5	SS: Astronomy	14-
5	SS: Biology	14-
5	SS: Botany	14-
5	SS: Chemistry	14-
5	SS: Geology	14-
5	SS: Physics	14-
5	SS: Zoology	14-

Total Abilities & Equipment Cost: 404

Total Base Cost: 440

Value Complications

10	Hunted:	various enemy intelligence agencies (Infrequently, As Pow, Capture/Destroy)
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Total Complications Points: 10

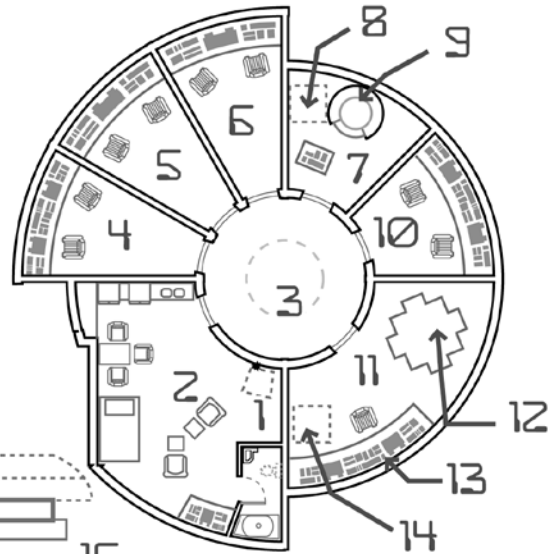
Total Cost: 440/5 = 88



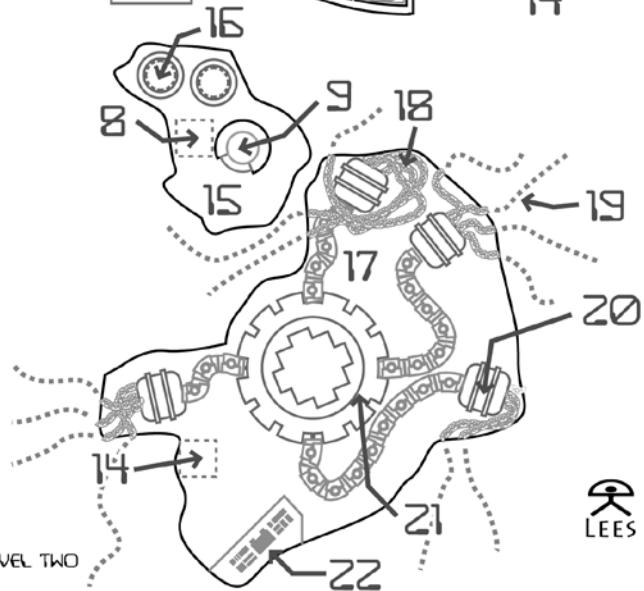
LISTENING POST 34782

4

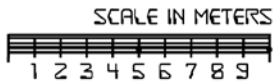
- 1 SECRET HATCHWAY INTO POST
- 2 SUPPLEMENTAL CREW LIVING AREA (TRIPLE OCCUPANCY)
- 3 CENTRAL ACCESS
- 4 ZONE ONE MONITORING STATION
- 5 ZONE TWO MONITORING STATION
- 6 ZONE THREE MONITORING STATION
- 7 SUPPLEMENTAL POWER/LIFE SUPPORT CHAMBER
- 8 FLOOR HATCH INTO POWER CORE SUBCHAMBER
- 9 POWER CORE
- 10 CRYPTOGRAPHY/INTELLIGENCE ANALYSIS
- 11 SIGNAL EQUIPMENT ROOM
- 12 SIGNAL MATRIX CRYSTAL
- 13 PRIMARY MATRIX CONSOLE
- 14 FLOOR HATCH TO SENSOR NEXUS SUBCHAMBER
- 15 POWER CORE SUBCHAMBER
- 16 SPARE POWER CORES
- 17 SENSOR NEXUS SUBCHAMBER
- 18 SENSOR INPUTS FROM REMOTE RECEIVER ARRAYS
- 19 SUBSURFACE CONDUITS LEADING TO ARRAYS
- 20 SENSOR SUBPROCESSOR
- 21 MATRIX CRYSTAL PROCESSOR
- 22 SECONDARY MATRIX CONSOLE



SUBLEVEL ONE



SUBLEVEL TWO





CHAPTER FIVE
FURNISHINGS
& FIREPOWER:
BASE EQUIPMENT



BASE EQUIPMENT RULES

Bases need all sorts of systems and equipment to make them function properly. This chapter describes, and provides dozens of examples for, other types of Base equipment: weapons, defenses, sensors, computers, and more. Using this chapter, you can quickly outfit a Base with all sorts of things to improve its performance and make it more fun in game play. If you don't like a system as it's presented, modifying it to suit yourself is an easy matter.

Any Base equipment must be self-powered; that is, it must normally cost no END, be bought to 0 END, use Charges, or have an Endurance Reserve. It's possible to have a single large Endurance Reserve for an entire Base; this would simulate the power plant or batteries possessed by many Bases. See *Power System*, page 175, for more discussion. For purposes of determining the END usage of Constant Powers and the like, assume all Bases have SPD 3.

BASE DESIGN AND FOCUS

Most equipment in a Base is built with the *Focus* Limitation (plus *Immobile*, as usual for Base equipment; see page 30). If the *Focus* is *Inaccessible*, that means it's not only difficult to move, but difficult to disable — just shutting it off at one point on the Base isn't necessarily going to stop it from functioning throughout the Base, because the Base has backup systems or some other method of maintaining that system even if a particular part of the Base gets damaged or disabled. It takes 1 Turn of effort to disable/break such a system throughout the Base. Typically the Base's PD/ED protects the system, but this may depend on special effects, the type of attack used, and so forth.

An *Accessible* system also probably isn't easy to move (though it may be, depending upon the nature of technology in the setting). However, it's easy to deprive the Base (and its occupants) of the use of that system, whether by reprogramming it, damaging it, or some other method. Depending on special effects and the circumstances, the system may or may not be protected by the Base's PD/ED (typically it's not). For example, a radio console may be easy to remove or destroy when you're inside the building (making it *Accessible*),

but would still get the benefit of the Base's PD/ED against attacks from outside the building.

Unless the GM prefers otherwise, Base equipment uses the standard rules for Durability on 6E1 378 to determine whether a particular attack stops a *Focus* from functioning. At the GM's option, characters may define a particular system as *Unbreakable*, with the special effect being not that it's totally undamageable, but that it's so diffused throughout the Base, has so many backup systems, or is otherwise so protected that only massive amounts of damage to the Base as a whole can destroy or disable it.

Base systems built without *Focus* are usually so diffuse (as described above), or so intrinsically a part of the Base, that they don't qualify for the *Limitation* — characters cannot normally destroy or disable them without doing the same to the entire Base. But don't forget the special effects involved; even without a *Focus* Limitation on a system, an invader or crazed resident may be able to damage or disable a system by attacking its access panels, causing it to overload, or the like.

Characters can apply the 5-point doubling rule (6E2 181) to Base equipment.

USE OF BASE EQUIPMENT

Since Bases don't have DEX or SPD and don't get to take Actions, Base equipment can only be used by the occupants of the Base, not the Base itself. However, "occupants" could include a Computer built into the Base and programmed to use the equipment (see page 182).

For example, a Base's cannons, radio, and artificial gravity field are all meaningless to it — they can only be used by the people in the Base. This is a natural and automatic function of Base equipment; it doesn't require the *Usable On Others* Advantage, even if the equipment could be used by multiple characters at once.

For some types of equipment, the Base's designer, perhaps with help from the GM, needs to decide whether only one occupant can use a piece of equipment at any given time, or multiple characters can use it (or, more appropriately in some situations, take advantage of the benefits it provides). For most types of equipment, the answer is fairly obvious based on common sense — if a Base only has a single radio, then only one



character at a time can use it. In other cases, a ruling from the GM may be required.

In some cases, a Base's equipment only affects its occupants, never the Base itself. For example, if the GM allowed a Base to buy Teleportation, then the Base could normally Teleport itself and anyone or anything inside it. But a Base might have a Teleportation Platform for use by its occupants. Obviously, this sort of system does *not* allow the Base itself to Teleport. In most cases GMs can control this situation through the simple application of common sense, but if necessary, they may require Base designers to apply a -0 Limitation, *Only Affects Occupants*, to any such equipment.

AREA-AFFECTING ABILITIES

Some Base powers or abilities are designed to affect the entire Base and/or its occupants. The most common examples are life support systems (Life Support) and artificial gravity (Telekinesis). In this case, the Base buys the appropriate Power for itself, and the ability then applies within the entire Base automatically — the *Area Of Effect Advantage* isn't required, unless the GM rules otherwise.

However, in the case of Powers with inherent area-affecting aspects (such as Darkness), if a Base wants the Power to affect the entire Base, it must buy it to a sufficient size to cover the Base's largest dimension (typically Length), with the Limitations *No Range* (-½) and *Self Only* (-½), if appropriate. In this case, the Power remains confined to the Base; the area doesn't expand outside the Base to fill its normal area.

If the Base wants an inherently area-affecting Power that doesn't apply to the entire Base (such as a small Darkness affect to make one room block radio signals), it just buys the Power to affect an area smaller than the entire Base; typically it cannot take a *Partial Coverage* Limitation for the Power.

DEFENSES VERSUS EXTERIOR EFFECTS

Some Base equipment is designed not to protect the Base itself, but to protect the occupants against external phenomena. A polarized window is the best example; it provides Sight Group Flash Defense for any Base occupant against a Sight Group Flash originating outside the Base... but it has no effect against a Sight Group Flash used within the Base. You can represent this by applying a Limitation, *Only Protects Versus Exterior [Effect] Against Interior Personnel* (-1), to the Defense Power (or, if appropriate, other powers).

If a Defense Power doesn't have that Limitation, or a similar one, typically it applies throughout the Base. For example, if a Base provides Mental Defense, and one character inside the Base attacks another with a Mental Blast, the Mental Defense protects the target, even if there's no obstacle or wall between him and his attacker. If appropriate, the GM should apply common sense, dramatic sense, and considerations of game balance when adjudicating these situations; even if the Mental Defense supposedly applies throughout the Base, it probably makes no sense to apply it to a victim who's standing right next to his attacker.

REDUNDANT AND BACKUP EQUIPMENT

Bases often have multiple “copies” of the same system or piece of equipment. Sometimes this is for safety reasons (as with life support), at other times for convenience.

You can represent redundant or “backup” equipment in several ways. The simplest is to apply the 5-point doubling rule from 6E2 181 — for every +5 points, a Base can have up to double the number of a particular piece of equipment. (If the piece of equipment costs less than 5 points, it may be cheaper for the Base to simply buy it multiple times at its regular cost.) The drawback to this is the additional items have to be identical to the original one purchased (or possibly, as in the case of Endurance Reserves, less powerful).

At the GM’s option, a Base can apply the +5 points method to create redundant systems for things it doesn’t ordinarily assign a point cost to. For example, for each +5 points, a Base could have up to double its standard number of lighting systems — that way, if one set of lights gets destroyed or turned off somehow, the backup lights switch on.

Second, a Base can buy extra BODY for a system with the *Partial Coverage* Limitation. The special effect in this case is that the extra BODY represents a reserve or backup system that activates as soon as the original system is destroyed.

Third, a Base can simply buy multiple versions of the same type of system. This is often done with, for example, power systems (Endurance Reserve). Bases using this method sometimes apply a *Trigger* Advantage to the secondary system, so that it activates automatically when a certain condition (typically the destruction or failure of the first system) occurs.

An additional benefit to the first and third methods is that they make more “spare parts” available for repairs. A Base that has just one Laser Cannon is in trouble if the Cannon’s destroyed. But if a Base has four Laser Cannons, each one badly damaged, a character with the right Skills and enough time may be able to take parts from all of them to build one or two functioning Cannons.

EQUIPMENT MASS AND VOLUME

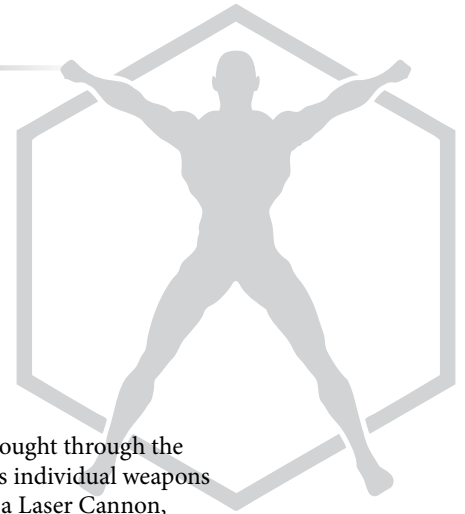
The *HERO System* rules make no provision for the mass or volume of equipment (Base or otherwise). In some genres or settings, the engine for a Base may occupy half of the Base’s interior space; in others, it takes up a single cubic meter. This is all just a matter of dramatic realism within the context of a game; it doesn’t involve any Advantages, Limitations, or other game elements. As long as a character’s equipment isn’t so “unrealistic” as to make the GM cry foul, everything’s fine.

However, some gamers want more precision than that. In that case, it’s up to the GM to devise a reasonable set of rules for calculating the mass and volume of equipment, based on the technological standards of his campaign. Many such rules use the Active Points the system is built with as a starting point. For example, perhaps you decide that weapons, defenses, and power systems all have a mass of 2 kg per Active Point and a volume of .25 cubic meters per 5 Active Points. On the other hand, sensors, communications systems, miscellaneous electronic devices, and the like have a mass of 1 kg per 5 Active Points, and a volume of .1 cubic meters per 5 Active Points.

Since Advantages often represent more advanced (and thus smaller and lighter weight) technology, and some Limitations (such as Activation Roll, Concentration, and Extra Time) reflect earlier, cruder, and bulkier technology, some mass and volume calculation systems reverse their role in the Active Point calculation — they multiply the Base Points in the Power by the *Limitations*, rather than the Advantages, then divide by the Advantages. That way two devices built with the same Power, but representing different levels of technological advancement, have different “Active Point” totals for purposes of determining their mass and volume.

The text in this book sometimes offers suggestions about the mass and volume of certain systems or types of equipment. These are just that — suggestions and guidelines, nothing more. Feel free to ignore or change them if you prefer other figures.

WEAPONS



In many campaigns, a Base's weapons are among the most important equipment in it. When characters are engaged in a war against a fearsome enemy, the size and number of the weapons built into their castle, secret headquarters, or space station can spell the difference between victory and defeat.

Many of the weapons in this section do not have the *Limited Arc Of Fire* Limitation, because it's possible to design them so they don't suffer from that restriction (for example, by putting a weapon in a rotating turret, or turning it by hand on some sort of pivot). However, it's often an appropriate Limitation, so you should add it if necessary.

If a weapon has Charges, typically the occupants can re-load it from inside the Base. If they must go outside to reload, and going outside is likely to be dangerous, the GM may allow an additional $-\frac{1}{4}$ Limitation for the Charges.

WEAPON MASS AND VOLUME

Typically weapons occupy a volume of 1-3 cubic meters per 5-10 Active Points, and have a mass of up to 2 kg per Active Point. As always, the GM may vary this as he sees fit; high-tech weapons tend to be much smaller than lower-tech ones, for example.

NUMBER OF WEAPONS

Since the *HERO System* has no hard-and-fast rules about equipment size or the like, technically a Base can mount as many weapons as its owner can pay for. Realistically, though, this often makes no sense, and GMs should forbid it. Many Bases are too oddly configured to mount many weapons, or built for non-military purposes, or the like. Only a Base deliberately designed for tactical/strategic reasons — such as most castles — is likely to be bristling with weaponry.

Gamemasters who want a rule of thumb for how many weapons a Base can have should use a Base's Size as a guideline. In some campaigns, maybe a Base can only mount one weapon per Size — or two weapons, or what have you. This may vary from Base type to Base type (for example, perhaps Bases on the ground can carry more weapons than one floating in air or water).

In any event, extra weapons bought through the 5-point doubling rule count as individual weapons — for example, if a Base buys a Laser Cannon, and then pays 15 points for a total of eight Laser Cannons, it has mounted a total of eight weapons. At the GM's option, a Base can up to double the number of weapons it can mount for +5 Character Points per doubling.

Accuracy Aids

Although not strictly weapons, these devices improve the accuracy of a Base's weaponry, making them *de facto* offensive systems.

Targeting Computer: This combat computer improves the accuracy of every weapon on the Base thanks to its dedicated target identification and tracking software.

Basic Targeting Computer: +2 with Ranged Combat (16 Active Points); OIF Immobile ($-1\frac{1}{2}$), Costs Endurance ($-\frac{1}{2}$). Total cost: 5 points.

Other Models:

- *Improved:* Increase to +3 (24 Active Points; total cost 8 points).
- *Advanced:* Increase to +4 (32 Active Points; total cost 11 points).
- *Enhanced:* Increase to +5 (40 Active Points; total cost 13 points).
- *Military-Grade:* Increase to +6 (48 Active Points; total cost 16 points).

Targeting Laser: This device is a small laser that attaches to (or is integrated with) a weapon. It "paints" the target with a laser dot, and its sensors then aim the weapon where the dot is. It uses its own battery rather than the Base's power; the battery has enough power for about an hour of continuous operation. It's subject to the same restrictions as laser weapons (see below).

Targeting Laser: +3 OCV with one Base Weapon (6 Active Points); 1 Continuing Fuel Charge (1 Hour, easily recharges; -0). Total cost: 6 points.

CONCEALING WEAPONS

Most weapons are built as Obvious Foci, since their presence and purpose are plain to anyone who perceives them. However, sometimes a Base doesn't want to have obvious weapons — perhaps the owner prefers to keep his military assets hidden so he can surprise attackers.

Concealing Base weapons usually means buying them as Inobvious Foci, rather than Obvious. This may involve hiding the weapon behind a moving panel, making it look like an ordinary object, or the like. A close inspection (and a successful Concealment roll) by a character usually reveals the weapon's presence, but in most cases the weapon can't be perceived until the Base's operator activates it.



Anti-Personnel Weapons

If a Base's designer expects that the Base may come under attack by persons that the staff doesn't want to harm (such as protestors who object to the Base's owners or purpose, or inmates/patients who might riot or try to escape), he can install weapons designed to stop the attackers without harming them.

Capturefoam Projector: This weapon sprays a thick stream of liquid that rapidly hardens, trapping anyone in the affected area.

Capturefoam Projector: Entangle 4d6, 4 PD/4 ED, Area Of Effect (8m Radius; +½), 30 Charges (+¼) (70 Active Points); OIF Immobile (-1½), Real Weapon (-¼), Limited Range (40m; -¼). Total cost: 23 points.

Capturefoam Grenade Launcher Option: Add Autofire (3 shots; +1¼), increase Charges to 60 (additional +¼) (130 Active Points), and remove Limited Range. Total cost: 47 points.

Knockout Gas Grenade Launcher: This weapon fires canister that release clouds of sleep-inducing gas when they contact the ground or any other hard surface.

Blast 5d6, NND (defense is Life Support [Self-Contained Breathing]; +1), Autofire (2 shots; +¼), 25 Charges lasting 1 Turn each (removed by winds or rain; +¾) (75 Active Points); OIF Immobile (-1½), Real Weapon (-¼). Total cost: 27 points.

Rapid-Fire Option: Increase Autofire to 4 shots (additional +¼) and Charges to 60 (additional +¼) (32 Active Points). Total cost: 39 points.

Net Cannon: This weapon shoots large nets made of nylon and/or steel mesh. Most models can only hold two net shells at a time.

Entangle 5d6, 5 PD/5 ED, Entangle And Character Both Take Damage (+¼), Area Of Effect (24m Radius; +1) (112 Active Points); OIF Immobile (-1½), Real Weapon (-¼), 2 clips of 2 Charges each (-1¼). Total cost: 28 points.

Expanded Clips Option: Change to 2 clips of 8 Charges each (-¼). Total cost: 37 points.

Sonic/Microwave Discomfitter: These weapons disperse crowds by making people uncomfortable or sick. The sonic version uses infrasound and ultrasound to induce feelings of vertigo and illness; lengthy exposure may cause victims to vomit or lose control of their bowels. The microwave version heats the victim's skin to the point where he's extremely uncomfortable, but not burned (though extended exposure may result in mild tissue burns).

Sonic Discomfitter: Drain CON 1d6, Area Of Effect (24m Radius; +1), Constant (+½) (25 Active Points); OIF Immobile (-1½), Real Weapon (-¼) (total cost: 9 points) plus Drain DEX 1 point, Area Of Effect (24m Radius; +1), Constant (+½) (7 Active Points); OIF Immobile (-1½), Real Weapon (-¼) (total cost: 2 points). Total cost: 11 points.

Microwave Discomfitter: Blast 1 point, NND (defense is resistant ED covering entire body; +1), Area Of Effect (32m Radius; +1), Constant (+½) (10 Active Points); OIF Immobile (-1½), Real Weapon (-¼). Total cost: 4 points.

Tear Gas Grenade Launcher: This weapon fires canister of gas that blind people by causing intense tearing.

Sight Group Flash 4d6, Area Of Effect (16m Radius; +¾), Autofire (3 shots; +1¼), Delayed Recovery (each BODY rolled is 1 Turn of effect, see APG 99; +2), 30 Continuing Charges lasting 1 Turn each (removed by winds or rain; +¾) (115 Active Points); OIF Immobile (-1½), Real Weapon (-¼). Total cost: 42 points

Beam Weapons

Beam weapons tend to be the most common type of Base armament in many Science Fiction games and Superheroes campaigns because they're easy for gamers to use. In a setting using "rubber science," you can define them as just about any type of energy; most of the examples below assume some reasonable effort to be "realistic."

BLASTERS

"Blasters" are a popular Base weapon in many genres. They give the Base an energy weapon without the builder having to worry about defining what the energy actually is. (If you want to define a specific special effect, consider these plasma weapons; see below.)

By converting any of these blasters to IIFs instead of OIFs you can make concealed versions of them suitable for use as Base interior defense weapons, traps for unwary intruders, and the like.

Standard Blaster: A typical blaster suitable for just about any Base.

Light Standard Blaster: RKA 2d6 (30 Active Points); OIF Immobile (-1½), Real Weapon (-¼). Total cost: 11 points.

Other Models:

- *Medium:* RKA 3d6 (45 Active Points; total cost 16 points)
- *Heavy:* RKA 4d6 (90 Active Points; total cost 33 points)
- *Superheavy:* RKA 5d6 (112 Active Points; total cost 41 points)
- *Mega-Blaster:* This blaster's beam of intense energy causes a tremendous explosion when it hits the target.

Light Mega-Blaster: RKA 2d6, Area Of Effect (20m Radius Explosion; +½) (45 Active Points); OIF Immobile (-1½), Real Weapon (-¼). Total cost: 16 points.

Other Models:

- *Medium:* RKA 3d6 (67 Active Points; total cost 24 points)
- *Heavy:* RKA 4d6 (90 Active Points; total cost 33 points)
- *Superheavy:* RKA 5d6 (112 Active Points; total cost 41 points)

Pulse Blaster: Rather than firing a beam of energy, this blaster projects a series of intense energy bursts.

Light Pulse Blaster: RKA 2d6, Autofire (5 shots; +½) (45 Active Points); OIF Immobile (-1½), Real Weapon (-¼). Total cost: 16 points.

Other Models:

- *Medium:* RKA 3d6 (67 Active Points; total cost 24 points)
- *Heavy:* RKA 4d6 (90 Active Points; total cost 33 points)
- *Superheavy:* RKA 5d6 (112 Active Points; total cost 41 points)

LASERS

Lasers emit beams of coherent light, in which all the light waves are in phase with one another. They are perfectly straight, and remain tightly concentrated over long distances. Higher-powered lasers use more energetic photons, like ultraviolet light, x-rays, or gamma rays.

As weapons, lasers do damage by suddenly superheating the surface of whatever they hit. The energies are modest, but concentrated into so tiny an area that they cause significant damage. Solid materials melt and shatter, and living tissue burns. More powerful lasers pierce better, and x-rays do additional damage from radiation effects. In combat, lasers are useful because it's difficult to detect where they were fired from (they only show up in the air if smoke or other particulates render them visible), there is no recoil, and they can fire as long as the power holds out.

The main limitation for lasers (as with any directed-energy weapon) is power. Early optical lasers use chemical reactions for sudden bursts of energy; later ultraviolet ones are powered by advanced capacitors. Hand-held X-ray lasers depend on micro-fusion power cells (in other words, "rubber science" power). Most laser weapons have built-in laser sights, using a low-power beam to paint a spot on the target before firing.

In game terms, Base lasers are Killing Attacks, often with the *Beam* Limitation. Ultraviolet lasers are Armor Piercing, and X-Ray or Gamma-Ray lasers are Armor Piercing and Penetrating. Optical and ultraviolet lasers are blocked by smoke and steam (reflected by a Limitation, since these phenomena are common); X-ray and gamma ray lasers are not, but special anti-laser aerosols do interfere with them normally.

In many games, generic energy beam weapons are often called "lasers" even though they don't act like them. They're particularly common in Star Hero games, where Bases have lots of power and need attacks that can function over extremely long ranges.

Standard Laser: A typical laser weapon for use by non-space bases.

Light Standard Laser: RKA 2d6, Armor Piercing (+¼) (37 Active Points); OIF Immobile (-1½), Real Weapon (-¼), Blocked By Smoke Or Steam (-¼), Beam (-¼). Total cost: 11 points.

Other Models:

- *Medium:* RKA 3d6 (56 Active Points; total cost 17 points)
- *Heavy:* RKA 4d6 (75 Active Points; total cost 23 points)
- *Superheavy:* RKA 5d6 (94 Active Points; total cost 29 points)

Gatling Laser: A Standard Laser modified for automatic fire. It often comes equipped with its own battery due to its enormous power requirements.

Light Gatling Laser: RKA 2d6, Armor Piercing (+¼), Autofire (5 shots; +½) (52 Active Points); OIF Immobile (-1½), Real Weapon (-¼), Blocked By Smoke Or Steam (-¼), Beam (-¼). Total cost: 16 points.

Other Models:

- *Medium:* RKA 3d6 (79 Active Points; total cost 24 points)
- *Heavy:* RKA 4d6 (105 Active Points; total cost 32 points)
- *Superheavy:* RKA 5d6 (131 Active Points; total cost 40 points)

Broad-Beam Laser: A Standard Laser modified to fire a much wider beam, one capable of hitting multiple targets with a single shot in many situations.

Light Broad-Beam Laser: RKA 2d6, Armor Piercing (+¼), Area Of Effect (250m long, 4m wide Line; +1½) (82 Active Points); OIF Immobile (-1½), No Range (-½), Blocked By Smoke Or Steam (-¼), Real Weapon (-¼). Total cost: 23 points.

Other Models:

- *Medium:* RKA 3d6 (124 Active Points; total cost 35 points)
- *Heavy:* RKA 4d6 (165 Active Points; total cost 47 points)
- *Superheavy:* RKA 5d6 (206 Active Points; total cost 59 points)

Space Combat Laser: Designed to fend off heavily-protected starships in the vast distances of space. It doesn't get the *Blocked By Smoke Or Steam* Limitation, because those phenomena are so rare in space.

Standard Space Combat Laser: RKA 8d6, Armor Piercing (+¼), Autofire (5 shots; +½), MegaScale (1m = 10 km; +1¼) (360 Active Points); OIF Immobile (-1½), Real Weapon (-¼). Total cost: 131 points.

Heavy Space Combat Laser: RKA 10d6 (450 Active Points; total cost 164 points).



OTHER BEAMS

Other types of beam weapons suitable for Bases include:

Ion Cannon: Ion cannons fire a beam of ionized gas at the target, doing damage by heat, impact, and secondary electrical effects. In terms of special effects, they're close to the cinematic blasters seen in the *Star Wars* movies (among others) — the ionized beam glows brightly as it fires, and the bolts, while fast, do not travel at the speed of light. They bypass the armor mounted by most targets (*i.e.*, Vehicles and other Bases), but are useless against force-fields. Another disadvantage is that ion beams need both a supply of gas (usually argon or neon) to ionize and a power supply; most ion guns use special cartridges that aren't compatible with other energy weapons or electrical devices.

Ion Cannon: RKA 4d6, NND (defense is Resistant Protection that costs END defined as a force-field, or the like; +1), Does BODY (+1), MegaScale (1m = 1 km; +1) (240 Active Points); OIF Immobile (-1½), Real Weapon (-¼). Total cost: 87 points.

Plasma Cannon: Also known as a Fusion Beam, this Science Fiction weapon derives from fusion power technology. It generates a tiny fusion reaction which releases superhot plasma; the gun then directs this plasma at the target via magnetic fields. The plasma spreads quickly over a wide area, which gives it a large area effect but limits the

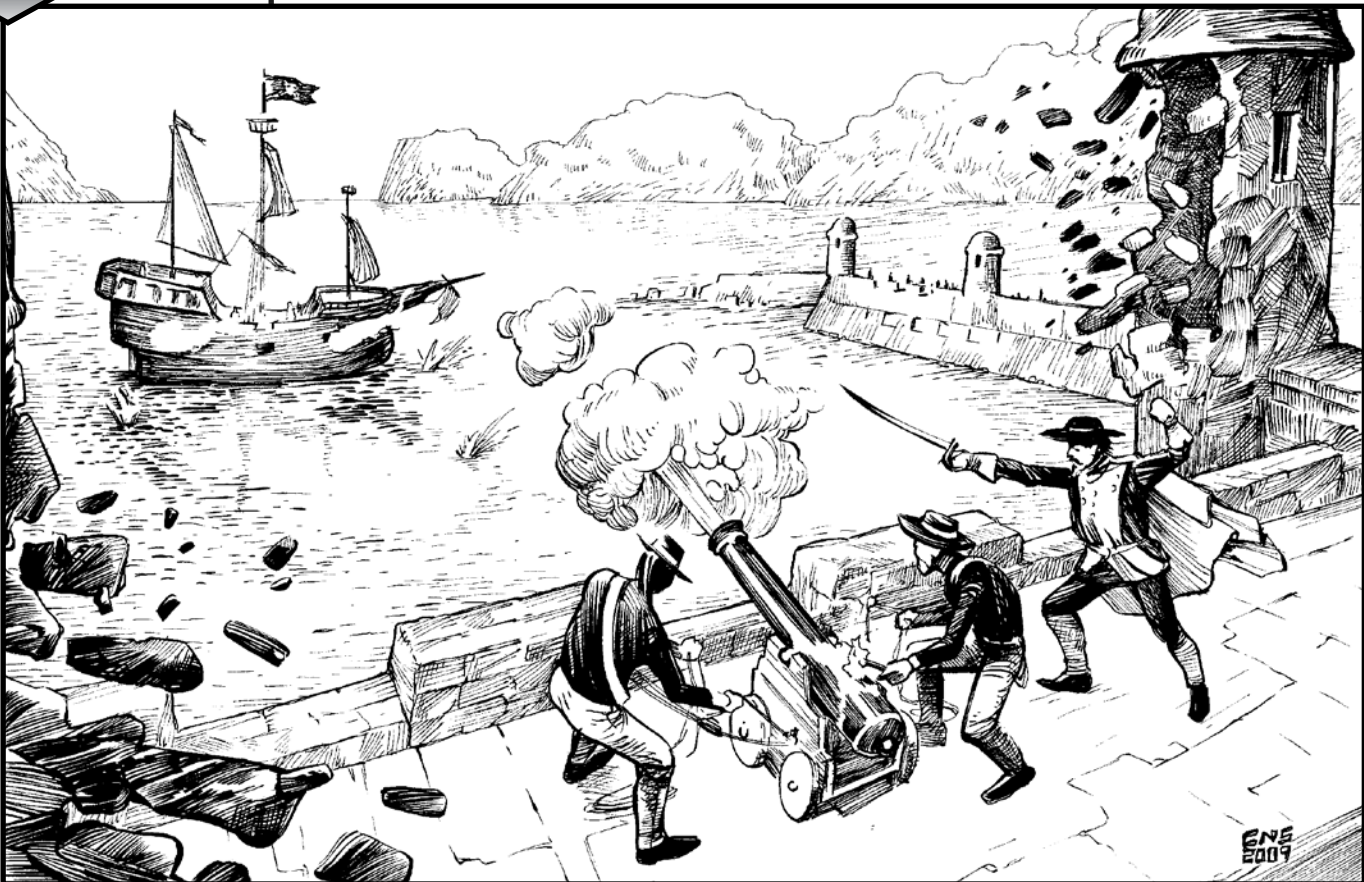
weapon's range. Plasma cannons use deuterium pellets, similar to those used in fusion rockets, as their fuel — in pre-fusion societies the weapons cannot be refueled. Assuming portable fusion generators are possible at all, plasma weapons don't involve any major violations of the laws of physics.

Plasma Cannon: RKA 5d6, MegaScale (1m = 1 km; +1) (150 Active Points); OIF Immobile (-1½), Real Weapon (-¼). Total cost: 54 points.

Cannons

Beginning around 1300 in Europe (and probably earlier in China), castles and fortifications armed themselves (and were attacked with) cannons — essentially, unrifled heavy metal tubes using gunpowder explosions to propel cannonballs at castle walls, enemy cannon, and similar targets. (In the mid-nineteenth century, cannons were made with rifled barrels, and cannonballs changed from spherical to a bullet shape.) Cannons had extensive range (though they weren't necessarily accurate at long distances), but took a long time to load and fire. They were rated in “pounds,” meaning the weight of the shot the gun fired. Thus, a twelve-pounder fires smaller cannonballs, and does less damage, than a 32-pounder. By the 1500s, castles were often designed (or renovated) specifically to take advantage of the defensive use of cannons and to counteract the use of cannons by besiegers.

5



Most field guns were on the small end of the scale — 6-12 pounders, with up to 32-pounders being somewhat less common. Heavier pieces were rare, due to the cost and difficulty of creating them, and how hard it was to move and operate them. Despite this, some truly massive cannon were created over the centuries, particularly by cities that used them for defense without having to move them. The Dulle Griet, manufactured in 1382 in Ghent, Belgium, fired a 700-pound stone ball. The Pumhart von Steyr, manufactured in Styria, Austria in the early 1400s, could fire a 1,500-pound stone ball a distance of 600 meters. Brunswick, Germany created the Faule Mette in 1411; according to reports it could fire a 750-pound ball approximately 2,500 meters. The Mons Meg of Edinburgh Castle fired 400-pound stone balls at the rate of 8-10 per day; some accounts describe the balls later being found up to two miles away. The largest traditional cannon ever made, Great Mortar of Moscow (*a.k.a.* the Tsar Cannon), built in 1586, fired a one-ton stone ball.

Cannonballs were originally shaped stone, but around the early 1400s cast-iron balls began to appear and by about 1500 had generally displaced stone for all but the heaviest cannon.

Cost Power

- 15 **1-6 Pound Cannon:** Multipower, 75-point reserve; all slots OIF Immobile (-1½), Extra Time (1 Minute to load and fire; -1½), Inaccurate (½ OCV; -¼), Real Weapon (-¼), Requires Multiple Users (cannon crew of 3 men; -½)
- 1f **1) Solid Shot Versus A Wall:** RKA 2d6; common Limitations
- 1f **2) Solid Shot Along The Ground:** RKA 2d6, Area Of Effect (500m Line, but Line is only as wide as the cannonball itself; +1½); common Limitations, No Range (-½)
- 1f **3) Exploding Ball/Shrapnel Ball:** RKA 2d6, Area Of Effect (20m Radius, Explosion; +½); common Limitations

Total cost: 18 points.

- 27 **7-12 Pound Cannon:** Multipower, 135-point reserve; all slots OIF Immobile (-1½), Extra Time (1 Minute to load and fire; -1½), Inaccurate (½ OCV; -¼), Real Weapon (-¼), Requires Multiple Users (cannon crew of 4 men; -½)
- 1f **1) Solid Shot Versus A Wall:** RKA 3d6, Increased Maximum Range (1,500m; +¼); common Limitations
- 2f **2) Solid Shot Along The Ground:** RKA 3d6, Area Of Effect (1,000m Line, but Line is only as wide as the cannonball itself; +2); common Limitations, No Range (-½)
- 2f **3) Exploding Ball/Shrapnel Ball:** RKA 3d6, Increased Maximum Range (1,500m; +¼), Area Of Effect (25m Radius, Explosion; +½); common Limitations

Total cost: 32 points.

Cost Power

- 37 **13-24 Pound Cannon:** Multipower, 195-point reserve; all slots OIF Immobile (-1½), Extra Time (1 Minute to load and fire; -1½), Inaccurate (½ OCV; -¼), Real Weapon (-¼), Requires Multiple Users (cannon crew of 5 men; -¾)
- 1f **1) Solid Shot Versus A Wall:** RKA 4d6, Increased Maximum Range (1,800m; +¼); common Limitations
- 3f **2) Solid Shot Along The Ground:** RKA 4d6, Area Of Effect (1,600m Line, but Line is only as wide as the cannonball itself; +2¼); common Limitations, No Range (-½)
- 2f **3) Exploding Ball/Shrapnel Ball:** RKA 4d6, Increased Maximum Range (1,800m; +¼), Area Of Effect (30m Radius, Explosion; +½); common Limitations

Total cost: 43 points.

- 42 **25-40 Pound Cannon:** Multipower, 244-point reserve; all slots OIF Immobile (-1½), Extra Time (2 Minutes to load and fire; -2), Inaccurate (½ OCV; -¼), Real Weapon (-¼), Requires Multiple Users (cannon crew of 6 men; -¾)
- 2f **1) Solid Shot Versus A Wall:** RKA 5d6, Increased Maximum Range (2,100m; +¼); common Limitations
- 4f **2) Solid Shot Along The Ground:** RKA 5d6, Area Of Effect (1,800m Line, but Line is only as wide as the cannonball itself; +2¼); common Limitations, No Range (-½)
- 2f **3) Exploding Ball/Shrapnel Ball:** RKA 5d6, Increased Maximum Range (2,100m; +¼), Area Of Effect (35m Radius, Explosion; +½); common Limitations

Total cost: 50 points.

- 55 **41-60 Pound Cannon:** Multipower, 315-point reserve; all slots OIF Immobile (-1½), Extra Time (5 Minutes to load and fire; -2), Inaccurate (½ OCV; -¼), Real Weapon (-¼), Requires Multiple Users (cannon crew of 6 men; -¾)
- 2f **1) Solid Shot Versus A Wall:** RKA 6d6, Increased Maximum Range (2,400m; +¼); common Limitations
- 5f **2) Solid Shot Along The Ground:** RKA 6d6, Area Of Effect (2,100m Line, but Line is only as wide as the cannonball itself; +2½); common Limitations, No Range (-½)
- 3f **3) Exploding Ball/Shrapnel Ball:** RKA 6d6, Increased Maximum Range (2,400m; +¼), Area Of Effect (40m Radius, Explosion; +½); common Limitations

Total cost: 64 points.

- 21 **Mega-Cannon:** RKA 10d6 (150 Active Points); OIF Immobile (-1½), Extra Time (1 Hour to load and fire; -3), Inaccurate (½ OCV; -¼), Real Weapon (-¼), Requires Multiple Users (cannon crew of 12 men; -1)

Advances in explosive technology eventually allowed for the development of explosive cannonballs (hollow iron balls filled with gunpowder and a fuse); in 1784 an improved form, the shrapnel shell, was invented (mainly for anti-personnel use). (Other types of shot, such as grapeshot or chain shot, weren't used against fortifications and so aren't discussed here; if necessary, use the "Shrapnel Ball" slot for grapeshot if the defenders of a Base fire grapeshot at their attackers.)

While cannons were often highly effective at damaging or destroying castle walls (which designers in turn shaped and thickened to better resist them), some types of materials were better at withstanding cannonfire than others. Earthen walls and some wooden walls, for example, can "absorb" cannonballs fired at them while suffering little damage... and perhaps even becoming stronger due to the metal balls now embedded in them! (This is one of the things represented by the *Real Weapon* Limitation.)

The cannons described here are written up as Multipowers, with one slot for firing a solid ball at a wall, one slot for a solid ball fired along the ground at personnel, and one slot for an exploding ball against either target. They have the *Inaccurate* Limitation to describe the difficulty their crews have aiming them; you may want to eliminate this on modern cannons. Medieval mega-cannons were generally intended for use against walls or similar large targets and so aren't built as Multipowers, but you can treat them as such in the event a PC gets creative when firing one. To create a mortar or howitzer version of a cannon, simply add the same slots but with the *Indirect* (allow the Path of the power to arc over intervening obstacles; +¼) Advantage. Cannons aren't built with Charges, since the number of balls a crew had and its ability to get resupplied could vary wildly. But you should treat them as having Charges so they don't cost END to fire; you can add that Limitation where it's appropriate in specific instances.

Unlike most Base equipment, cannon are considered Bulky Inaccessible Foci rather than Immobile. Most were difficult, even extraordinarily difficult, to move, but could be moved. You can create an Immobile cannon emplacement by changing the Limitation and recalculating a cannon's cost.

Electronic Warfare Systems

Electronic warfare refers to the practice of jamming, fooling, misdirecting, and otherwise interfering with an enemy's sensors and electronic signals. This inhibits his ability to communicate with his allies, control his probes, and locate targets. Of course, one Base's electronic countermeasures (ECM) can be neutralized by another's electronic counter-countermeasures (ECCM), and so on; see page 167.

In game terms, there are several ways to represent electronic warfare. The simplest is for occupants of both Bases to use their *Systems Operation* Skills in a Skill Versus Skill Contest, with the victor being the one who successfully neutralized (or avoided the neutralization attempted by) his opponent.

Bases desiring more advanced ECM systems can create them with Powers. To generate an area of interference that hinders (but doesn't necessarily stop) sensing or communicating, use Change Environment (with combat effects that penalize Systems Operation). Creating an area of totally impenetrable interference requires Darkness, or perhaps Suppress. Fooling or confusing an enemy Base's sensors usually requires Images. Dispel, Drain, and Flash also work well for ECM. Bases sometimes apply the *Personal Immunity* Limitation so they can perceive through their own interference, but this should be rare; it can cause too many game balance problems in Base combat situations.

Anti-Sensor EMP Generator: This weapon projects an intense electromagnetic pulse specifically attuned to destroy sensors and communication systems.

Dispel Sensors/Communications 20d6, Expanded Effect (all Sensor/Communications powers simultaneously; +4), Area Of Effect (500m Radius; +2), Increased Maximum Range (9,600m, or about 6 miles; +1) (480 Active Points); OAF Immobile (-2). Total cost: 160 points.

Space Base Option: Add Area Of Effect (30m Radius; +1) and MegaArea (1m = 1 km; +1). 600 Active Points; total cost 200 points.

Chaff Generator: This weapon fires a shell which scatters reflective particles through a large area, blocking sight and radar in that region.

Darkness to Sight and Radio Groups 1m radius, MegaArea (1m = 100m; +1) (30 Active Points); OIF Immobile (-1½), Real Weapon (-¼), 12 Charges (-¼). Total cost: 10 points.

Space Base Option: Increase Darkness to 3m radius, and MegaArea to 1m = 1 km, and add MegaRange (1m = 1 km; +1). 75 Active Points; total cost 25 points.

Interferiation Field: A space Base with this technology can generate an energy field that inhibits the use of sensors and communications.

Change Environment, -4 to Systems Operation rolls, Area Of Effect (32m Radius; +1), MegaArea (each 1m = 1 million km wide, broad, and deep; +2½), MegaRange (1m = 10 million km; +2¾) (87 Active Points); OAF Immobile (-2). Total cost: 29 points.

Intense Interferiation Field: This energy field is similar to the standard interferiation phenomenon, but is much stronger.

Darkness to Radio Group 10m radius, MegaArea (each 1m = 1 million km wide, broad, and deep; +2½), MegaRange (1m = 10 million km; +2¾) (312 Active Points); OAF Immobile (-2). Total cost: 104 points.

Radar Blinder: This device generates a pulse of energy that temporarily blinds enemy sensors and communications systems.

Radio Group Flash 10d6, Area Of Effect (250m Radius; +1¾), Increased Maximum Range (8,000m, or about 5 miles; +1) (187 Active Points); OAF Immobile (-2). Total cost: 62 points.

Space Base Option: Radio Group Flash 10d6, Area Of Effect (30m Radius; +1), MegaArea (each 1m = 1 million km wide, broad, and deep; +2½), MegaRange (1m = 10 million km; +2¾) (362 Active Points); OAF Immobile (-2). Total cost: 121 points.

Radar Jammer: This device blocks radar within a large region centered on the Base. The enemy can easily tell there's something there generating the jamming field, but it's impossible for him to locate/target with his radar. The downside is, the Base generating the field can't use its own radar, either.

Suppress Radar 8d6, Area Of Effect (15m Radius; +¾), MegaArea (1m = 1 km wide, broad, and deep; +1) (220 Active Points); OIF Immobile (-1½), Costs Endurance (to maintain; -½), No Range (-½). Total cost: 63 points.

Radar Spoofing: This system attempts to fool enemy radar by creating false images to confuse targeting systems. The Base's own radar systems know what's going on and compensate for the false images.

Radio Group Images, -5 to PER Rolls, Area Of Effect (1m Radius; +¾), MegaArea (1m = 1 km wide, broad, and deep; +1), Personal Immunity (+¼) (62 Active Points); OAF Immobile (-2), No Range (-½), Set Effect (false images of the Base, of other targets or attackers, and the like; -½), Limited Effect (Radar only; -¼). Total cost: 14 points.

Guns And Related Weapons

These weapons project a physical object directly at the target through some means, causing damage through kinetic impact, explosions, or the like. In addition to normal gunpowder-based guns, they include gauss guns, or *railguns*, which use magnetic force to hurl metal slugs long distances at tremendous speeds.

Guns typically fire solid metal slugs, sometimes shaped for extra armor-piercing effect. However, if they're large enough, or the technology is sophisticated enough, they could launch explosive shells, nuclear warheads, smart homing missiles, or anything else that can survive hundreds of Gs of acceleration.

These writeups assume the gun's in a turret or on a pivot and thus can fire in any direction. If that's not the case, apply the *Limited Arc Of Fire* Limitation.

Machine Guns: These are Base-mounted automatic-fire weapons with high rates of fire and high ammunition capacity.

Light Machine Gun (7.62mm): RKA 2d6+1, Autofire (5 shots; +½), +1 Increased STUN Multiplier (+¼), 500 Charges (+1) (96 Active Points); OAF Immobile (-2), Beam (-¼), Real Weapon (-¼). Total cost: 27 points.

AP Ammo Option: Add Armor Piercing (+¼). 105 Active Points; total cost 30 points.

Medium Machine Gun (12.7mm): RKA 3d6, Autofire (10 shots; +1), +1 Increased STUN Multiplier (+¼), 750 Charges (+1) (146 Active Points); OAF Immobile (-2), Beam (-¼), Real Weapon (-¼). Total cost: 42 points.

AP Ammo Option: Add Armor Piercing (+¼). 157 Active Points; total cost 45 points.

Heavy Machine Gun/Light Autocannon (20mm): RKA 4d6, Autofire (10 shots; +1), +1 Increased STUN Multiplier (+¼), 750 Charges (+1) (195 Active Points); OAF Immobile (-2), Beam (-¼), Real Weapon (-¼). Total cost: 56 points.

AP Ammo Option: Add Armor Piercing (+¼). 210 Active Points; total cost 60 points.

Very Heavy Machine Gun/Autocannon (25mm): RKA 4d6+1, Autofire (10 shots; +1), +1 Increased STUN Multiplier (+¼), 1,000 Charges (+1) (211 Active Points); OAF Immobile (-2), Beam (-¼), Real Weapon (-¼). Total cost: 60 points.

AP Ammo Option: Add Armor Piercing (+¼). 227 Active Points; total cost 65 points.

Railgun: This railgun could be mounted on a ground Base to shoot satellites and aircraft out of the sky, or on a Base in outer space to attack invaders from other star systems.

RKA 6d6, Armor Piercing (+¼), MegaScale (1m = 1 km; +1) (225 Active Points); OAF Immobile (-2), Beam (-¼), Real Weapon (-¼). Total cost: 64 points.

Autofire Option: Add Autofire (5 shots; +½). 247 Active Points; total cost 70 points.



Flamethrower: This is a typical Base-mounted flame projector — a terrifying weapon intended primarily for use against personnel.

Cost Power

- 24 **Light Flamethrower:** Multipower, 60-point reserve, 60 Charges for entire Multipower (+½); all OAF Immobility (-2), No Range (-½), Real Weapon (-¼)
- 1f **1) Line Mode:** RKA 2d6, Area Of Effect (30m Line; +½); common Limitations plus RKA 1 point, Constant (+½), Uncontrolled (last until flammable material affected by RKA 2d6 is consumed, or a Full Phase is spent putting out the flames; +½), Reduced Endurance (0 END; +½), Sticky (anyone or anything flammable touching the victim also catches on fire; +½); common Limitations plus Linked (-½)
- 1f **2) Cone Mode:** As Line Mode, but 15m Cone
- Total cost: 26 points.**

Other Models:

- **Medium:** Increase RKA to 3d6 and reserve to 82 points. Total cost: 37 points.
- **Heavy:** Increase RKA to 4d6 and reserve to 90 points. Total cost: 42 points.

Rockets And Missiles

Rockets and missiles are warheads that propel themselves into a target. The simplest missiles use nothing but the force of their impact to damage the foe, but most mount explosive warheads. In most cases Base rockets and missiles are long-range weapons intended to strike targets hundreds or thousands of miles away if necessary, but some might be short-range missiles intended to hit attacking aircraft, shoot down enemy missiles, or the like.

MISSILES AS RANGED KILLING ATTACKS

In *HERO System* terms, you can design missiles and rockets in two ways. The simplest is as RKAs with some or all of the following Power Modifiers:

- **Area Of Effect** (Radius Explosion and Radius Accurate are both useful for simulating many types of missiles)
- **Indirect** (to change the Path, since they don't necessarily have to travel to their target in a straight line)
- **Increased Maximum Range** or **MegaScale**, and possibly **No Range Modifier** as well (for missiles that have to hit distant targets)
- **Extra Time** (This represents how long it takes the missile to reach its target; this can range from an Extra Segment to several minutes depending on the distance to the target and the missile's speed. It's up to the GM whether to allow a Base that's launched an Extra Time missile to make other attacks while waiting for it to hit its target. Alternately, designers can simply not take the *Extra Time* Limitation, and assume for ease of game play that any missile reaches its target in the same Segment it's launched.)

Here are two examples of this sort of missile:

Rocket Pod: A twelve-chambered rocket pod, arranged four by three, designed for shooting down low-flying aircraft, airborne superheroes, and those pesky pigeons.

RKA 3d6, Area Of Effect (20m Radius Explosion; +½), Increased Maximum Range (3600m, or 2.23 miles; +¾), Indirect (attack originates at same point every time, but Path can change to strike target from any angle; +½), No Range Modifier (+½) (146 Active Points); OAF Immobility (-2), Extra Time (travels at the rate of 500m per Segment, taking a minimum of one Extra Segment to reach its target; -½), Real Weapon (-¼), 12 Charges (-¼). Total cost: 36 points.

Surface Attack Missile: Why wait for the enemy to get into machine gun range? Blow him up while his tanks and soldiers are still miles down the road!

RKA 4d6, Area Of Effect (40m Radius Explosion; +¾), Increased Maximum Range (4,800m, or about 3 miles; +¾), Indirect (Path always arcs up to strike target from above; +¼), No Range Modifier (+½) (195 Active Points); OAF Immobility (-2), Extra Time (travels at the rate of 250m per Segment, taking a minimum of one Extra Segment to reach its target; -½), Real Weapon (-¼), 4 Charges (-1). Total cost: 41 points.

MISSILES AS VEHICLES

The more complex, but more “realistic,” way to define a missile or rocket is to make it a small Vehicle (or Automaton). It's equipped with Flight engines, sensors, whatever other systems it needs, and a No Range attack with 1 Charge which Never Recovers (and destroys the Vehicle). Their guidance comes from a remote operator (which can be cut off with interference, a Physical Complication), or an onboard computer (which means the builder has to buy Senses for it). In most cases it's not necessary to buy the computer separately (just assume the missile has INT 10), but the most sophisticated missiles do need a separate computer. They have the Physical Complication *Can Be Missile Deflected By Vehicles/Bases* (Frequently, Greatly Impairing; 20 points), to reflect the fact that point defenses (see page 169) can destroy them before they impact their target. In some cases GMs may also allow characters to Missile Deflect them, based on special effects, game balance, and other considerations. They also have the Physical Complication *Costs Firing Base 10 END To Fire* (Frequently, Slightly Impairing; 15 points), to represent the END cost of launching them at a target.

Here are two examples of this sort of missile:

MIM-104 PATRIOT SAM

Description: The MIM-104 Patriot surface-to-air missile is the US Army's primary HIMAD (High to Medium Air Defense) and ABM (anti-ballistic missile) weapon system. It's the latest iteration of a system that began development in the mid-Sixties and was deployed in 1984. Initially it was an anti-aircraft system; today it's designed mainly

MIM-104 PATRIOT SAM

Val	Char	Cost	Notes
4	Size	20	5 x 2.5 x 2.5 m; -4 KB; OCV+ 2
20	STR	-10	Lift 400 kg; 4d6 HTH [0]
20	DEX	12	
12	OCV	45	
10	DCV	35	
6	SPD	40	Phases: 2, 4, 6, 8, 10, 12
4	PD	3	
4	ED	3	
14	BODY	0	Total Characteristics Cost: 148

Movement: Ground: 0m
Flight: 34m/3400m

Cost Powers **END**

Propulsion Systems

36	Engine: Flight 34m, x100 Noncombat	[1cc]
	1 Continuing Fuel Charge (easily-obtained fuel; 1 Minute; -¾)	
-12	Only Flies: Running -12m (0m total)	
-2	Only Flies: Swimming -4m (0m total)	

Tactical Systems

20	Explosive Warhead: RKA 5d6,	[1nr]
	Area Of Effect (20m Explosion; +½), No Range (-½), 1 Charge which Never Recovers (-4)	
10	Electronic Countermeasures: Radio Group	0
	Flash Defense (10 points)	
7	Electronic Countermeasures:	0
	Power Defense (15 points)	
	Only Versus Electronic Jamming (-1)	

Operations Systems

22	Targeting Radar: Radar (Radio Group), Discriminatory, Analyze, Telescopic (+12 versus Range)	0
	OIF Bulky (-1)	
5	Communications Systems: Radio Perception/Transmission (Radio Group)	0
	OIF Bulky (-1)	

Total Abilities & Equipment Cost: 86

Total Vehicle Cost: 234

Value Complications

20	Physical Complication: Can Be Missile Deflected (Frequently, Greatly Impairing)
15	Physical Complication: Costs Firing Base 10 END To Fire (Frequently, Slightly Impairing)
20	Physical Complication: Remote Guidance (enemy can interfere with or disable guidance system) (Infrequently, Fully Impairing)

Total Complications Points: 40

Total Cost: 234/5 = 47

NUCLEAR MISSILE

Val	Char	Cost	Notes
8	Size	40	12.5 x 6.4 x 6.4 m; -8 KB; OCV+ 5
30	STR	-20	Lift 1,600 kg; 6d6 HTH [0]
18	DEX	16	
8	OCV	25	
8	DCV	25	
6	SPD	0	Phases: 2, 4, 6, 8, 10, 12
2	PD	0	
2	ED	0	
18	BODY	0	Total Characteristics Cost: 86

Movement: Ground: 0m
Flight: 80m/80,000m

Cost Powers **END**

Propulsion Systems

74	Engine: Flight 80m, x1,000 Noncombat	[1cc]
	1 Continuing Fuel Charge (easily-obtained fuel; 1 Minute; -¾)	
-12	Only Flies: Running -12m (0m total)	
-2	Only Flies: Swimming -4m (0m total)	

Tactical Systems

136	Nuclear Warhead: RKA 20d6	[1nr]
	Area Of Effect (20m Radius Explosion; +½), MegaArea (1m = 1 km wide, deep, and tall; +1); No Range (-½), 1 Charge which Never Recovers (-4)	
15	Electronic Countermeasures: Radio Group	0
	Flash Defense (15 points)	
7	Electronic Countermeasures:	0
	Power Defense (15 points)	
	Only Versus Electronic Jamming (-1)	

Operations Systems

62	Radar Array: Multipower, 62-point reserve	
2f	1) Close-Range Radar: Radar (Radio Group), Discriminatory, Analyze	
6f	2) Far-Range Radar: Radar (Radio Group), Discriminatory, Analyze, MegaScale (1m = 100 km; +1½)	
18	Radar Enhancers: +12 versus Range for Radio Group	0
30	Communications Systems: HRRP (Radio Group)	0
	MegaScale (1m = 100 km; +1½)	

Total Abilities & Equipment Cost: 336

Total Vehicle Cost: 422

Value Complications

20	Physical Complication: Can Be Missile Deflected (Frequently, Greatly Impairing)
15	Physical Complication: Costs Firing Base 10 END To Fire (Frequently, Slightly Impairing)
20	Physical Complication: Remote Guidance (enemy can interfere with or disable guidance system) (Infrequently, Fully Impairing)

Total Complications Points: 40

Total Cost: 422/5 = 84



to take out enemy missiles in flight. Despite the fact that it's listed here as a Base weapon, one of its main advantages is that it's highly mobile; all of its components are truck- or trailer-mounted, and a missile crew can set up a new battery of Patriots in as little as one hour.

A Patriot is 5.8m long, with a diameter of 0.41m; it weighs 700 kg. Its top flight speed is Mach 5 (about 3,800 miles per hour); its operational range 160 km (approximately 100 miles). It mounts a 91 kg blast/fragmentation warhead that detonates via proximity fuse.

NUCLEAR MISSILE

Description: This character sheet represents a “generic” nuclear missile. It could be used by a mad scientist who's threatening to destroy the world from his hidden desert laboratory, a starship mounting nuke-tipped “space torpedoes,” or many other such combatants. Depending on the size and type of missile you want, you may need to increase the Size of the missile, its meters of Flight, or the number of RKA dice it has.

Siege Engines

During the Age of Castles, special techniques and weapons were developed for the specific purpose of attacking and reducing (destroying) castles. An attack on a castle was referred to as a *siege*. In a siege situation, typically the attacker significantly outnumbers the defender (otherwise, the defender could probably meet the attacker in open battle). Sieges were usually long, drawn-out affairs, sometimes lasting years, with periods of intense, highly dangerous activity punctuating long stretches of boredom. The defenders were often more likely to die from starvation or disease than the enemy's weapons... assuming the attacker didn't just give up and leave, or flee to escape from arriving reinforcements.

See *Sieges*, page 201, for more information on this subject.

TYPES OF SIEGE ENGINES

The weapons developed to attack castles were known collectively as *siege engines*. They can be organized into four categories:

WALL-APPROACHING DEVICES

Some “engines” weren't really engines at all, but rather devices designed to allow attackers to approach the walls safely so defenses could be breached or avoided.

A *cat* (also known as a mantlet, mouse, weasel, or sow) is a large, mobile, protective horizontal “shield” to protect sappers and rammers at the wall face from being hit with objects dropped from the battlements. A *tortoise* is a similar device on wheels, often equipped with a battering ram or a boarding-bridge.

A *siege tower*, or belfry, is a large wooden tower with several “stories” inside. At the bottom, there's often a battering ram attached to the wooden frame with chains, for use against the gates and wall, with the upper tower providing protection

to the soldiers working the ram. Mounted on a wheeled platform, the tower was pulled up to the edge of a castle while loaded with soldiers. (The upper levels could also contain mangonels, cross-bowmen, and the like.) The tower's purpose was less to knock the walls down than to get attackers to the top of the walls quickly, easily, and relatively safely.

Various types of *scaling ladders* were used to get up to the battlements as quickly as possible. Ordinary long wooden ladders raised by hand were the most common, but some besiegers used rope ladders or nets with hooks on the end. Others built heavier ladders on wheels, or folded ladders in wooden frameworks that could quickly be raised by pulling on a rope. Similar to a conventional ladder was a *sambuca*, a broad, heavy ladder with a covered tunnel built around it. In the front was a small platform that held four to ten soldiers. Their job was to fight off the defenders as the sambuca was being placed, then hold the battlements while other soldiers climbed up the sambuca. Unlike regular ladders, a sambuca could be long and sturdy enough to bridge a castle's moat.

MUSCLE-POWERED ENGINES

Muscle-powered siege engines used the brawn of several soldiers to wield them. Typically they're used against gates, windows, or other relatively vulnerable parts of a fortification, not against the walls themselves.

A *battering ram* is a large log, roughly sharpened on front (or sometimes with a shaped metal head). Four or more soldiers would grab it by handles on either side, run up to a castle gate with it, and attempt to smash the gate in. In the process they would come under attack from the castle's defenders. Sometimes they protected themselves with a wheeled cover called a tortoise (see above). In some cases the ram itself was attached to the cover via chains, making it easier to swing; attaching the ram to a “framework” like this also allowed combat engineers to make rams bigger than ones that had to be carried by soldiers. Other large rams were built with wheels.

A battering ram is the only siege engine that uses the STR Minimum rules (for which it receives a -1 Limitation). The GM should calculate a STR Minimum for the ram, taking into account not only its size and composition but the awkwardness of wielding it. Most rams have a STR Min of 30 or more; rams built into wheeled covers have a -10 STR Minimum (similar to a gun fired from a bipod). Next he should calculate the overall STR of the persons using it by adding up how much they can lift, then comparing that total to the Strength Table to derive a “group STR” score. If the group's STR exceeds (or does not equal) the STR Minimum for the ram, the ram does extra (or less) damage per the standard STR Minimum rules.

All characters wielding a battering ram must take their Phases on the same Segments (faster characters have to Hold their Actions if necessary, and may lose some Actions). They must use the same DEX to strike. This DEX determines the group's OCV; the group cannot apply any Combat



Skill Levels (unless every member of the group has CSLs with Battering Ram, in which case they can apply only as many Levels as the character with the fewest Levels has).

Similar to a battering ram in some respects was a *borer*, which drilled holes in a wall. While battering rams were most effective against gates or stone walls, borers were best for brick walls. The holes are filled with wooden props until they were all drilled, then the props set alight so that they burn away and the wall collapses.

SPRING- AND TORSION-POWERED ENGINES

These engines use simple mechanical force to hurl missiles. A spring engine uses a single spring, or sometimes a double spring (a bow) to “throw” a missile (usually an enlarged arrow or spear). A torsion engine, such as a catapult, uses a twisted skein of cord, animal hair, or rope to move an “arm” with great force, thus hurling the missile held at the end of the arm.

The *ballista* is a weapon something like a large, emplaced crossbow. First developed by the Romans following the design of the Greek *gastrophetes* (“belly bow”), it fires stones or javelin-like bolts weighing no more than about 10 pounds on a low trajectory. Unlike most siege engines, it was suited for use against personnel as well as castles; it could be turned fairly quickly and hit targets close to it. Some versions even fired multiple smaller missiles to make them more effective against personnel (in game terms, these function the same as normal ballistae, but have Reduced Penetration against fortifications). Estimated ranges for a large ballista firing a large missile are as much as 420m; ranges differ based on the size

of the ballista and the missile. Similar arrow-firing siege engines included the Greek *polybolos* (a repeating arrow-firer) and the Roman *scorpion* and *cheiromballistra*.

Similar to the ballista was the *espringal* (or *springald*), a wooden framework to which were mounted two long arms in torsion springs. They were often mounted on top of towers or over gates, to fire out at attackers.

The *spring engine* used a wooden bar drawn back against the tension of tightly-tied ropes or cords to project one or more arrow- or spear-like missiles over a range of no more than about 146m. The operators can adjust the frame to change the elevation and direction of fire.

The *catapult* is a torsion engine in which a twisted length of rope (or the like) fitted into a frame holds a large arm with a cup on the top end. The operating crew winches the arm all the way back, locks it in place, and puts a rock or similar missile in the cup. When the crew pulls the trigger, the tension in the cord moves the arm at great speed. The arm hits a crossbar and stops, but the missile flies a long distance. The largest catapults could fire missiles of up to 60 pounds as far as 365m. Smaller catapults and catapult-like engines, such as the *lithobolos*, *mangonel*, and the *onager*, had shorter ranges with lighter missiles.

Unlike the catapult, which relies on torsion, the *perrière* fires small stone balls using human muscle power. Four or five operators simultaneously pull on ropes to provide the power to fling the stone. On the other hand, the *einarm* used torsion; it had one resilient beam of wood with a cup on the end and a sling attached to it, so that it could fire two stone balls at once.

COUNTERWEIGHT ENGINES

The most powerful form of medieval siege engine — the *trebuchet* (or in Arabic, the *manjaniq*) — was a counterweight engine. It had a frame with a fulcrum, to which a swinging arm attached. One end of the arm held a counterweight — usually a wooden box filled with hundreds or thousands of pounds of earth and rock. On the other end of the arm was a sling-like attachment. To fire a trebuchet, its crew winched the arm down so that the counterweight was elevated, then loaded a missile into the sling. When someone pulled the trigger, the weight dropped quickly, flinging the missile with great force. The entire contraption could weigh upwards of fourteen thousand kilograms and hurl huge missiles weighing 500 pounds or more up to 277m — the heavier the counterweight, the further the distance. Some counterweights weighed as much as 14 tons!

DEFENDERS' SIEGE WEAPONS

In addition to being able to mount small siege engines like ballistae and mangonels on the battlements to fire at enemy engines or units, the defenders in a siege could simply drop heavy or dangerous substances on attackers near the wall face. These included boiling water, oil, or tar, and rocks and other heavy objects.

USING SIEGE ENGINES

For the most part, characters use siege engines as they would normal weapons, pitting OCV against DCV via an Attack Roll, taking the Range Modifier into account. Siege engines that fire large missiles attack against DCV 3. Characters must have an appropriate Weapon Familiarity to operate a siege engine, or they suffer the standard Unfamiliar Weapon penalty (-3 OCV).

Siege engines do their listed damage to the target... assuming the missiles are intended to cause damage. Sometimes armies use their engines for more insidious purposes. They could, for example, launch disease-laden, putrefying animal corpses over a city's walls in the hope of starting a plague to weaken the defenders, lob "beehive" missiles (big clay balls filled with cobblestones to create a shrapnel-spewing explosion when they land) into the midst of crowded areas, or fire containers of incendiaries in an effort to set the castle or town on fire. An army of Evil creatures might capture prisoners, then fire them from catapults as "living missiles." A necromancer-general could hurl undead warriors right inside a keep so they can attack the defenders without having to scale the walls.

DIRECT-FIRE SIEGE ENGINES

Ballistae are direct-fire weapons that project a missile straight at their target. They're usually mounted on a pivot or carriage so the firer can aim them with a reasonable degree of accuracy. There are no special rules for firing them.

INDIRECT-FIRE SIEGE ENGINES

Operating indirect-fire siege engines — catapults, mangonels, onagers, spring engines, and trebuchets — requires special rules. These weapons are too big and difficult to move to be aimed at a target any more specifically than simply pointing them in the right direction. The firer selects a target area (which must be at least half the engine's maximum range away from the engine) and rolls to hit it with OCV -20. Standard Range Modifiers (not adjusted for the battle scale) apply as well. Therefore, the early shots with an indirect-fire engine — "ranging shots," so to speak — usually miss, even taking into account the target's OCV+ modifier.

However, a crew can gradually fine-tune its attack if it pays attention to what it's doing. If a crew fires three or more shots at the same target and misses each time, any crew member with PS: Siege Engineer may make a roll (if more than one crewmember has this PS, the others can make a Complementary Skill Roll to help the one with the best roll). If he fails the roll, nothing happens (but the engine can go on firing). If he makes the roll, he gets a +1 to his OCV. He may make another roll every time the engine fires; for each roll that succeeds, he gets another cumulative +1 OCV bonus. Eventually, enough missed shots let the crew "zero in" on the target and hit it — after all, it's not as if it can move out of the way.

Just hitting the target isn't the end of the matter, though. As discussed in Chapter Two (particularly in the advanced rules for castle construction), castle walls tend to be thick and sturdy. A single hit usually isn't enough even to knock a hole all the way through a wall, much less smash the entire wall down... and only the best siege engine crews equipped with well-designed machines and missiles of uniform weight and shape can count on hitting the same exact spot on a wall again and again. (See the Hit Location rules in Chapter Six for more discussion of targeting a specific part of a Base.) Thus, siege warfare often consists of the attackers slowly trying to batter down the wall (or get over or under it) while the defenders try to hold them off, destroy their siege engines, rebuild damaged sections of wall, and the like.

SIEGE ENGINES VERSUS INDIVIDUALS

Due to the large size of their missiles and the awkwardness of firing them, armies almost always use siege engines against fortifications or other large targets, not personnel (ballistae and some smaller catapults are an exception, especially when used by defenders). Hitting an individual person with a siege engine is difficult at best: a siege engine other than a ballista has a -20 OCV penalty for purposes of targeting a single person; a ballista has a -5 OCV penalty.

The GM should, as always, apply common sense and dramatic sense when adjudicating the effects of siege engines against individuals. Even though in game terms they don't necessarily do significantly more damage than strong characters armed with large HTH weapons, their effects are obviously devastating in many situations.

They can smash through walls, heavy gates, and other objects characters can't cut through with weapons. The odds are that being smashed with a 50-500 pound object moving at high velocity will pulverize any PC, no matter how tough he thinks he is or how much BODY and defense he has.

SIERGE ENGINES IN HERO SYSTEM TERMS

In *HERO System* terms, siege engines are built as RKAs, reflecting their ability to smash through walls (or, in some cases, inflict horrific injuries, often to multiple soldiers at once). They're bought as OAFs with the *Immobile* modifier valued at just -¾ — most of them can be moved, but typically only by draft animals or large groups of men at a speed of no more than 1m per Phase. (Besiegers often build larger engines out of trees and lumber right on the spot, rather than towing them to the siege.) With the GM's permission you can apply the *Durable* and *Fragile* modifiers (both -0) to increase or decrease the engine's PD/ED and BODY, as appropriate.

Indirect-fire siege engines, such as catapults and trebuchets, have the Advantage *Indirect* (Path of the power arcs over intervening obstacles; +¼). That allows them to, for example, hurl an object over the walls into a castle's bailey (though the usual procedure is to aim the arc so the missile hits and damages a castle wall). A large missile fired by a catapult or trebuchet isn't bought as Area Of Effect, since the size is in effect represented by how walls take damage (see 6E2 173), but you may want to treat it as a 1-3m Radius Area Of Effect if the missile lands in the middle of a massed group of soldiers or other people.

Besides Focus, Limitations common to siege engines include Requires Multiple Users, Real Weapon, Extra Time, Cannot Fire At Nearby Targets (the minimum distance the weapon can fire is half its maximum range; -¼), and Inaccurate (½ OCV in addition to the "ranging shots" rules discussed in the text; -¼). Depending on the situation, the GM may interpret the *Real Weapon* Limitation as hindering the siege engine's usefulness. For example, a ballista bolt works fine against personnel or wooden walls, but should have little or no effect on stone or earthen walls; the same would apply to spring engines firing arrows, spears, or the like.

Changing the angle of fire on a small siege engine (like most ballistae) requires a Full Phase Action by the crew manning it; changing the angle of a larger one usually takes at least 1 Turn, possibly much longer.

Siege engines aren't built with Charges, since the number of bolts or balls a crew had and its ability to get resupplied could vary wildly. But you should treat them as having Charges so they don't cost END to fire; you can add that Limitation where it's appropriate in specific instances.

Battering Ram, Man-Carried: Blast 6d6 (30 Active Points); OAF Bulky (-1½), Extra Time (Full Phase; -½), No Range (-½), Requires Multiple Users (4; -½), Real Weapon (-¼), STR Minimum (users must have combined STR [6E1 41] of 30; -1). Total cost: 6 points.

Battering Ram, Mounted: Blast 8d6 (40 Active Points); OAF Immobile (-1¾), Extra Time (Full Phase; -½), No Range (-½), Requires Multiple Users (2; -¼), Real Weapon (-¼), STR Minimum (users must have combined STR [6E1 41] of 20; -½). Total cost: 8 points.

Borer: RKA 2½d6 (40 Active Points); OAF Immobile (-1¾), Extra Time (1 Turn; -1¼), No Range (-½), Requires Multiple Users (2; -¼), Real Weapon (-¼). Total cost: 8 points.

Scaling Ladder (various types): +6 to Climbing rolls (12 Active Points); OAF (-1). Total cost: 6 points. Characters can climb ladders at the rate of 4m per Phase, rather than the usual maximum of 2m per Phase for regular Climbing. Treat a ladder as having 3 PD, 3 ED, and 3 BODY per 2m long section; see page 201 for further information.

Cat/Mantlet/Tortoise: Barrier 6 PD/6 ED, 6 BODY (6m long, 4m wide, a few centimeters thick), Non-Anchored, Opaque, Mobile (1m per Phase; +¼), Reduced Endurance (0 END; +½), Persistent (+¼) (110 Active Points); OAF Bulky (-1½), Only Applies Against Dropped Attacks And Attacks From Certain Angles (-1). Total cost: 31 points.

Siege Tower: Siege towers are best built as very slow-moving Vehicles, using the Vehicle Size rules to determine how tall they are and giving them 5 PD/5 ED to represent their sturdy wooden construction. They can include battering rams (see above) on the lower levels, ramps and planks the soldiers in the tower can extend so they can access the castle battlements, and so forth. A siege tower should have about 3-5 BODY per 2m of height.

Ballista, Light: RKA 2d6 (range: 300m) (30 Active Points); OAF Immobile (-1¾), Extra Time (2 Phases to reload between shots; -¾), Inaccurate (½ OCV; -¼), Real Weapon (-¼). Total cost: 7 points.

Ballista, Heavy: RKA 3d6 (range: 450m) (45 Active Points); OAF Immobile (-1¾), Extra Time (1 Turn to reload between shots; -1¼), Inaccurate (½ OCV; -¼), Real Weapon (-¼), Requires Multiple Users (2; -¼). Total cost: 9 points.

Perrière (Light Muscle-Powered Catapult): RKA 2d6, Indirect (Path can arc over intervening obstacles; +¼) (37 Active Points); OAF Immobile (-1¾), Cannot Fire At Nearby Targets (the minimum distance the weapon can fire is half its maximum range; -¼), Extra Time (2 Phases to reload between shots; -¾), Inaccurate (½ OCV in addition to the "ranging shots" rules discussed in the text; -¼), Limited Range (about 150m; -¼), Real Weapon (-¼), Requires Multiple Users (4; -½). Total cost: 7 points.

Einarm: RKA 2d6, Autofire (2 shots; +¼), Indirect (Path can arc over intervening obstacles; +¼) (45 Active Points); OAF Immobile (-1¾), Cannot Fire At Nearby Targets (the minimum distance the weapon can fire is half its maximum range; -¼), Extra Time (2 Phases to reload between shots; -¾), Inaccurate (½ OCV in addition to the “ranging shots” rules discussed in the text; -¼), Limited Range (about 150m; -¼), Real Weapon (-¼), Requires Multiple Users (4; -½). Total cost: 9 points.

Onager, Mangonel (Light Catapult): RKA 2½d6, Indirect (Path can arc over intervening obstacles; +¼) (50 Active Points); OAF Immobile (-1¾), Cannot Fire At Nearby Targets (the minimum distance the weapon can fire is half its maximum range; -¼), Extra Time (1 Turn to reload between shots; -1¼), Inaccurate (½ OCV in addition to the “ranging shots” rules discussed in the text; -¼), Limited Range (about 320m; -¼), Real Weapon (-¼), Requires Multiple Users (2; -¼). Total cost: 9 points.

Catapult: RKA 3½d6, Indirect (Path can arc over intervening obstacles; +¼) (69 Active Points); OAF Immobile (-1¾), Cannot Fire At Nearby Targets (the minimum distance the weapon can fire is half its maximum range; -¼), Extra Time (1 Minute to reload between shots; -1½), Inaccurate (½ OCV in addition to the “ranging shots” rules discussed in the text; -¼), Limited Range (about 365m; -¼), Real Weapon (-¼), Requires Multiple Users (4; -½). Total cost: 12 points.

Trebuchet, Light: RKA 4d6+1, Indirect (Path can arc over intervening obstacles; +¼) (81 Active Points); OAF Immobile (-1¾), Cannot Fire At Nearby Targets (the minimum distance the weapon can fire is half its maximum range; -¼), Extra Time (30 Minutes to reload between shots; -2½), Inaccurate (½ OCV in addition to the “ranging shots” rules discussed in the text; -¼), Limited Range (about 250m; -¼), Real Weapon (-¼), Requires Multiple Users (6-8; -¾). Total cost: 11 points.

Trebuchet, Heavy: RKA 5d6, Indirect (Path can arc over intervening obstacles; +¼) (94 Active Points); OAF Immobile (-1¾), Cannot Fire At Nearby Targets (the minimum distance the weapon can fire is half its maximum range; -¼), Extra Time (30 Minutes to reload between shots; -2½), Inaccurate (½ OCV in addition to the “ranging shots” rules discussed in the text; -¼), Limited Range (about 274m; -¼), Real Weapon (-¼), Requires Multiple Users (10-12; -1). Total cost: 13 points.

Wet Hides: Besiegers sometimes protected their siege weapons from defenders’ fire-arrows and other incendiary missiles by covering them with hides soaked in water. You can buy this as Resistant Protection (+4 ED [6 Active Points]; OAF (-1); total cost +3 points) for a siege engine.

DEFENDERS’ WEAPONS

Besides simply dropping stones or other heavy objects onto attackers (see 6E2 141 for rules, and perhaps make the attack a small Area Of Effect if the dropped object’s particularly large), defenders had other tricks they could play on attackers at the wall face. The most common was to pour boiling water or heated sand onto the attackers to cause horrific burns. Boiling oil or tar could also be used, but were much rarer than water or sand due to their value; similarly, some defenders used quicklime. As vividly described by a number of ancient chroniclers, red-hot sand or boiling liquids were particularly effective because they could run over shields and under armor — there was no real protection against them.

Boiling Water/Oil/Tar/Sand: RKA 2d6, Area Of Effect (3m Radius Conforming Liquid; +¾), NND (defense is Resistant ED that costs END, defined as a force-field or the like; +1), Does BODY (+1) (112 Active Points); OAF Bulky (-1½), Dropped (-0), Real Weapon (-¼). Total cost: 41 points.

Tractor Beam

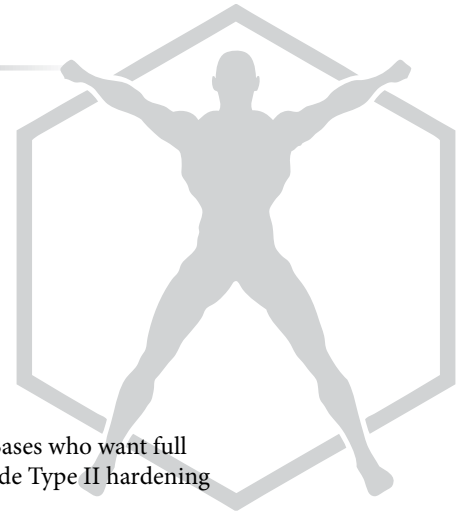
In Science Fiction settings where artificial gravity control technology exists, Bases often come equipped with *tractor beams* — generators able to project beams of gravitic force. Typically a Base uses its tractor beam as a tool (for example, to guide a docking vessel safely into its berth, or to move cargo from a storage area to a nearby ship). But it can become a potent weapon in combat, used to hurl objects at other bases, or “push” an enemy fighter into a collision with an obstacle. Tractor beams are built as Telekinesis, usually with a high level of STR and the *Affects Whole Object* Limitation.

Light Tractor Beam Projector: Telekinesis (20 STR) (30 Active Points); OAF Immobile (-2), Affects Whole Object (-¼). Total cost: 9 points.

Other Models:

- *Medium:* Telekinesis (40 STR) (60 Active Points; total cost 18 points).
- *Heavy:* Telekinesis (60 STR) (90 Active Points; total cost 28 points).
- *Superheavy:* Telekinesis (80 STR) (120 Active Points; total cost 37 points).

DEFENSES



Bases typically rely on their walls and related infrastructure for defense, but some have additional defensive systems.

DEFENSE MASS AND VOLUME

Typically defensive systems occupy a volume of 1-6 cubic meters per 5-10 Active Points, and have a mass of up to 3 kg per Active Point. As always, the GM may vary this as he sees fit.

Electronic Counter-Countermeasures

Bases can counter electronic warfare systems (page 158) with ECCM (electronic counter-countermeasures).

Basic Electronic Counter-Countermeasures:

When the enemy tries to jam your sensors or play other electronic tricks, you have the technology to counter his efforts.

Suppress Electronic Warfare 8d6, Variable Effect (any Electronic Warfare power, one at a time; +½), Increased Maximum Range (12,800m, or about 8 miles; +1), No Range Modifier (+½) (240 Active Points); OAF Immobile (-2), Costs Endurance (to maintain; -½). Total cost: 69 points.

Space Base Option: Add MegaRange (1m = 100 km; +1½). 360 Active Points; total cost 103 points.

System Hardening, Type I: The Base's systems have special protection against many forms of electronic warfare.

Weak System Hardening: Radio Group Flash Defense (5 points). Total cost: 5 points.

Other Models:

- *Standard:* Radio Group Flash Defense (10 points). Total cost: 10 points.
- *Strong:* Radio Group Flash Defense (15 points). Total cost: 15 points.
- *Extremely Strong:* Radio Group Flash Defense (20 points). Total cost: 20 points.

System Hardening, Type II: Bases who want full protection against ECM include Type II hardening as well as Type I.

Weak System Hardening: Power Defense (5 points) (5 Active Points); Only Versus Electronic Jamming (-1). Total cost: 2 points.

Other Models:

- *Standard:* Power Defense (10 points) (10 Active Points; total cost 5 points).
- *Strong:* Power Defense (15 points) (15 Active Points; total cost 7 points).
- *Extremely Strong:* Power Defense (20 points) (20 Active Points; total cost 10 points).

Energy Shields

In some Science Fiction settings, Bases don't just rely on their walls for protection — they use *energy shields*, also called *force shields*, to protect themselves from the powerful weapons mounted on enemy starships. From *Star Trek's* deflectors to the Langston Field of *The Mote In God's Eye*, Bases surrounded by bubbles of energy have been shrugging off attacks capable of reducing them to confetti for decades. (Energy shields sometimes appear in other genres, such as Superheroes.)

You can build a Base's energy shield in one of two ways. The simplest is to buy extra PD and ED that Cost Endurance. A more complex, but potentially more protective, way is to buy Barrier with Limitations like *Costs Endurance* (to maintain; -½), *No Range* (-½), and *Self Only* (-½). If you choose the latter method, a Base could buy one large Barrier to cover the whole Base, or two or more smaller Barriers each covering part of it, so that destruction of one Barrier won't leave the Base totally unprotected. Some Bases even have layered energy shields, one built as a Barrier and one as extra PD/ED.

A Base designer can make force shields Ablative. The shields in *Star Trek* work that way; attacks gradually wear them down until they "collapse." In this case, the -1 optional version of Ablative from 6E1 147 usually works best. Ordinarily, an Ablative defense that's lost can only be recovered at the end of an adventure. That works fine for physical defenses like armor, but doesn't make quite as much sense for a force shield — in Science Fiction, a Base can often re-create a "collapsed" shield, just not immediately after it collapses

(the shield-generating systems have to work back up to full charge, or the like). Gamemasters should allow a Base to re-activate a “destroyed” Ablative force shield after a defined period of time has passed (typically 1 Minute, or 5 Minutes, or an Hour — any of which are an eternity in battle), unless the shield-generating equipment itself is damaged or destroyed. (At the GM’s option, the value of Ablative may be ¼ less Limitation due to this change.) For Barriers without Ablative, you can simulate this same effect with the *Extra Time* Limitation.

Base Energy Shield, Type I: A basic force shield, tuned against both physical and energy attacks.

Weak Type I Energy Shield: +6 PD/+6 ED (18 Active Points); OIF Immobile (-1½), Costs Endurance (-½). Total cost: 6 points.

Other Models:

- *Standard:* +10 PD/+10 ED (30 Active Points; total cost 10 points).
- *Strong:* +14 PD/+14 ED (42 Active Points; total cost 14 points).
- *Extremely Strong:* +18 PD/+18 ED (54 Active Points; total cost 18 points).

Ablative Models (add Ablative (-1)):

- *Weak:* +6 PD/+6 ED (12 Active Points; total cost 3 points).
- *Standard:* +10 PD/+10 ED (30 Active Points; total cost 7 points).
- *Strong:* +14 PD/+14 ED (42 Active Points; total cost 10 points).
- *Extremely Strong:* +18 PD/+18 ED (54 Active Points; total cost 13 points).

Base Energy Shield, Type II: This shield offers an outer layer of protection surrounding a Base. It’s built to be big enough to cover the Dethridge Orbital Fortress (see Chapter Four) entirely; you should adjust the size to account for other Bases.

Weak Type II Energy Shield: Barrier 6 PD/6 ED, 6 BODY (1,600m long, 400m tall, and ½m thick), One-Way Transparent (+1), Reduced Endurance (½ END; +¼) (4,556 Active Points); OIF Immobile (-1½), Costs Endurance (to maintain; -½), No Range (-½), Restricted Shape (bubble around station; -¼), Self Only (-½). Total cost: 1,072 points.

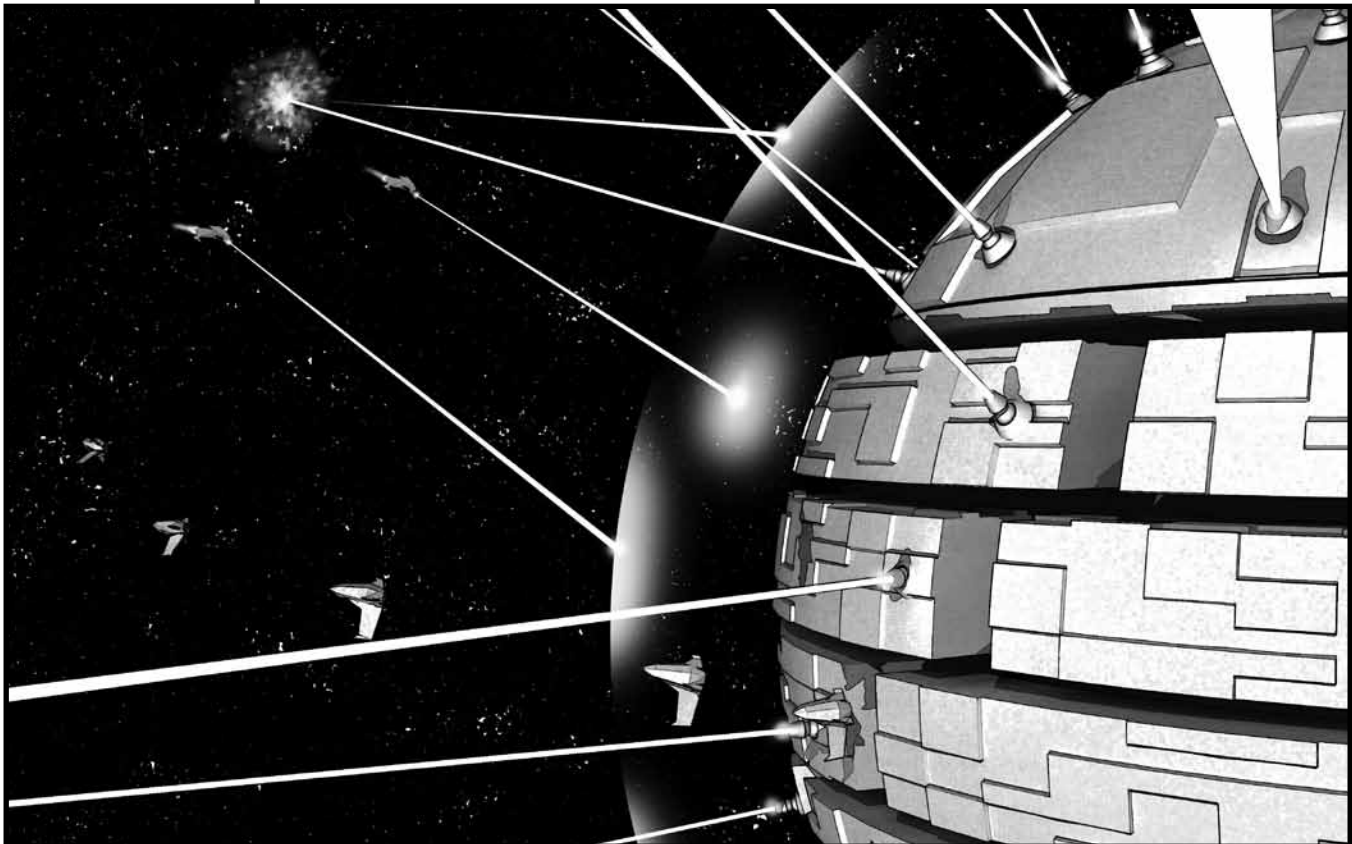
Other Models:

- *Standard:* 10 PD/10 ED, 10 BODY (4,592 Active Points; total cost 1,080 points).
- *Strong:* 14 PD/14 ED, 14 BODY (4,628 Active Points; total cost 1,089 points).
- *Extremely Strong:* 18 PD/18 ED, 18 BODY (4,664 Active Points; total cost 1,097 points).

Fire Safety Systems

Attacks that disrupt electrical systems, generate heat, or involve incendiary weapons often start fires aboard a Base. Here are some devices designed to cope with the problem.

Fire Extinguishing System: This system detects and then extinguishes fire. In small Bases, the operator knows when a fire occurs and activates the system himself. Larger Bases have automated fire detection devices, and multiple fire suppression systems to cover the whole Base.



Dispel Fire Powers 12d6, Expanded Effect (all Fire powers simultaneously; +4) (180 Active Points); OAF Immobile (-2), 8 Charges (-½). Total cost: 51 points.

Large Base Subsystem: Add Only Within Affected Area (40m x 40m zone; -2). Total cost: 33 points.

Automated Fire Detection System: Detect Fires (INT Roll +5, using Base's Computer, or 14- if no Computer) (8 Active Points); OAF Immobile (-2), Only Within Affected Area (40m x 40m zone; -2). Total cost: 2 points.

Fireproofing: The Base has been fireproofed throughout, thus diminishing the damage caused by fires and their potential to spread.

Energy Damage Reduction, Resistant, 25% (15 Active Points); Only Works Against Fire (-½). Total cost: 10 points.

Point Defenses

Point defenses stop incoming physical weapons (missiles and the like) before they damage the base. Most use dedicated light machine guns, rapid-firing lasers, railguns, or the like to destroy approaching missiles, but other special effects are possible (such as a “deflector field” energy screen surrounding a Base). Rather than engaging in a battle where the Base tries to do enough BODY damage to a missile to destroy it, it's best to define point defense systems as a form of Deflection (as noted on page 160, missiles have a Physical Complication that allows targets to Deflect them).

Base Point Defense System: Deflection (20 Active Points); OIF Immobile (-1½), Only Works Against Physical Projectiles (-¼). Total cost: 7 points.

Psychic Screen

This system, installed throughout a Base's exterior walls, generates a field of “psychic static” that makes it difficult for exterior mental assaults to affect the Base's occupants. However, the occupants can affect each other with Mental Powers normally... and if one of them tries to affect someone outside the Base, he has to punch through the Psychic Screen.

Weak Psychic Screen: Mental Defense (5 points) (5 Active Points); Only Protects Versus Exterior Mental Attacks Against Interior Personnel (-1). Total cost: 2 points.

Other Models:

- *Standard:* Mental Defense (10 points) (10 Active Points; total cost 5 points).
- *Strong:* Mental Defense (15 points) (15 Active Points; total cost 7 points).
- *Extremely Strong:* Mental Defense (20 points) (20 Active Points; total cost 10 points).

Security Systems

The following systems help ensure the security and safety of a Base's occupants.

STANDARD SECURITY

In general terms, Bases can represent their overall level of security by buying Security Systems using the *Skills* Power. If an intruder or thief fails to defeat the Base in a Skill Versus Skill Contest with Security Systems, alarms go off, security teams respond, and so forth.

- *Basic Security:* Security Systems 11-. Total cost: 7 points.
- *High Security:* Security Systems 14-. Total cost: 13 points.
- *Advanced Security:* Security Systems 17-. Total cost: 19 points.
- *Extremely Advanced Security:* Security Systems 20-. Total cost: 25 points.
- *Ultra-Advanced Security:* Security Systems 23-. Total cost: 31 points.

SPECIFIC SYSTEMS

Here are examples of a few specific types of security devices. For more, see *The Ultimate Skill*, pages 268-92.

CONFINEMENT TRAP

When a victim triggers this trap (usually by stepping on a concealed plate or panel in the floor, but occasionally by touching or pulling on something), it causes walls to slam down around him, confining him. It's usually placed in corridors so the corridor walls form two sides, and the confining panels drop down from the ceiling to cut off a section of the hallway. The writeup below assumes stone walls; vary the Entangle dice and defense to simulate other materials.

Characters can escape the trap by hacking through the walls or lifting the confining walls. The walls typically have STR equal to five times their BODY, but the GM may vary this as he sees fit.

A person trapped under a falling confinement trap wall takes a number of dice of Normal Damage equal to the wall's BODY and is then pinned to the floor by the wall's STR (see above).

Confinement Trap: Barrier 6 PD/10 ED, 8 BODY (blocks off a section of stone hallway 5m long, 3m wide, and 3m high; descending walls are ½m thick), Trigger (see text; +¼) (54 Active Points); IIF Immobile (-1¼), No Range (-½), 1 Recoverable Charge (-1¼). Total cost: 13 points.

FINGERPRINT ANALYZER

This biometric device is as much a lock as a security device — it's just that the “key” is one or more persons' fingerprints, rather than a physical object, electronic code, or the like. The user places his finger (usually thumb) on the device's pad, and it scans the print. If the print matches one in its database of authorized users, the device opens the door.

Tricking a fingerprint analyzer is difficult, but not impossible. Sometimes it can be done with molds or flat impressions of the print (such as a print the person left on a drinking glass or table) lifted using criminalistic methods. An even more extreme solution is simply to cut an authorized user's finger off and use that. However, none of these methods work on a *vitaprint analyzer*, which also checks to see if the print attempting to activate it comes from a live finger. If none of these methods are available, a character may have to use his Security Systems knowledge to short out, trick, or otherwise disable the scanner (Electronics is a Complementary Skill).

Some versions of this device scan the whole palm, rather than just a fingerprint. You can also use this write-up to simulate other biometric sensors, such as DNA scanners or retina scanners.

Fingerprint Analyzer: Detect Authorized Fingerprint 14- (Radio Group) (8 Active Points); OIF Immobile (-1½), No Range (-½). Total cost: 3 points.

MOTION DETECTOR

Motion detectors use ultrasonic sound (or sometimes microwaves or other forms of energy) to detect whether anything is moving in their field of "vision" (which extends for about 15m (50 feet) in front of them). When someone moves into the protected area, he disturbs the "field"; the device registers this and activates the alarm. They're best used in high-security areas with hard surfaces where no movement's expected (*i.e.*, where guards don't patrol, there are no pets or cuckoo clocks, and so on). Rooms with soft or absorbent surfaces (such as thick carpet or heavy drapes) absorb more sound, so ultrasonic motion detectors don't work well in them (reduce the device's PER Roll by -2 or more).

Ultrasonic versions of this alarm can only cover a single enclosed area (since the sound waves bounce off walls and other solid surfaces). However, a single microwave-based motion sensor may cover multiple rooms. Microwaves reflect off metal, but not off glass, wallboard, wood, and the like, so they can perceive through solid objects. That means they can be hidden behind a piece of furniture, a cover, or the like. On the other hand, this means a microwave-based motion detector might be triggered by innocuous movement outside the building it's installed in (such as a passing bird or car); fluorescent lights and radio transmissions can sometimes cause false alarms as well.

Some poor-quality motion detectors won't register objects moving slowly. In game terms, this usually means moving at no greater speed than 2m per Turn. This requires a Stealth roll (in addition, the GM may require characters to make EGO Rolls to force themselves to move that slowly). If the character succeeds with his Stealth roll exactly, the sensor suffers a -1 penalty to its PER Roll; each point by which the Stealth roll is made beyond that increases the penalty by another -1.

Better models can't be fooled by slow movement, and will even detect the presence of immobile objects that aren't normally in the area it covers.

Defeating motion sensors is difficult, at best. The easiest thing to do is avoid them, but if that's not possible, sometimes characters can overload or jam them with devices designed to broadcast the same frequency of sound (in game terms, that sort of device is a Change Environment that reduces the motion detector's PER Roll). Another possibility would be to wear garments made of sound-absorbent material (even thick cloth or fur might do); this, too, would be defined as a Change Environment that diminished the device's PER Roll. If characters can get to the device's receiver without triggering it, covering up the receive (say, with tape) may render it "blind" (or at least significantly reduce its PER Roll), though newer models have "anti-masking" features that trigger an alarm if anyone places an object too close to them.

Motion Detector: Detect Moving Persons/ Objects 15- (Radio Group) (11 Active Points); OIF Immobile (-1½), Only Within Defined Area (15m area "in front of" device; -2). Total cost: 2 points.

SECURITY CAMERA SYSTEMS

One of the easiest ways to maintain security on a large Base is simply to watch areas where trouble might arise, or people who might cause trouble. A camera monitoring system usually features closed-circuit TV (CCTV) technology that's controlled from a central security station, which dictates the maximum viewing range (though regardless of range, the system cannot create a perception point away from the Base — only inside it and on the exterior of the building).

Security Camera System: Clairsentience (Sight And Hearing Groups), Multiple Perception Points (up to eight at once), 8x Range (anywhere within the Base) (60 Active Points); OAF Immobile (-2), Affected As Radio Group As Well As Sight/Hearing Groups (-¼), Fixed Perception Points (-1). Total cost: 14 points.

Concealed Security Cameras: Change to IAF Immobile (the monitoring station itself is Obvious, but the cameras are concealed; -1½). Total cost: 16 points.

SECURITY WEAPONS

In some Bases, when a security device such as the ones described above detects an intruder, security personnel or computers can deploy automated weapons to deal with the unwanted visitors. Some examples include:

Pop-Down Machine Gun (or Laser Rifle): RKA 2d6, Autofire (5 shots; +½), 60 Charges (+½) (60 Active Points); IAF Immobile (-1½), Beam (-¼), Limited Arc Of Fire (only in the room below the ceiling it pops down from; -¼), Only Within Defined Area (-2), Real Weapon (-¼). Total cost: 11 points.

Pop-Down Blaster: Instead of RKA 2d6, substitute Blast 8d6 for those high-tech villains with a bit of a merciful streak. 80 Active Points; total cost 25 points.

Anaesthetic Gas Projector: This device releases a cloud of knockout gas to incapacitate intruders without causing permanent harm. Blast 6d6, Area Of Effect (8m Radius; +½), Constant (+½), NND (defense is Life Support [Self-Contained Breathing or appropriate Immunity]; +1) (90 Active Points); IAF Immobile (-1½), Only Within Defined Area (-2), 4 Continuing Charges lasting 1 Turn each (-½). Total cost: 18 points.

CELLS AND VAULTS

Some Bases need places to confine prisoners or securely store valuable items — in fact, this may be the *raison d'être* for some Bases, such as prisons or banks.

You can build a cell or vault by buying extra PD, ED, and/or BODY using the *Partial Coverage* Limitation. In campaigns where unusual powers or technologies are available, Base designers may want (or need) to apply unusual defenses or Advantages to the walls to hold unusual prisoners — Cannot Be Escaped With Teleportation to stop characters with Teleportation, Mental Defense to keep mentalists from using their powers effectively, Affects Desolidified to keep Desolidified characters from simply walking out, or Life Support (Self-Contained Breathing) so that it's airtight (meaning characters with Shrinking can't escape through the cracks). All of these Powers and Advantages can also take the *Partial Coverage* Limitation to reflect the size of the cell(s) or vault(s).

Here are some examples. These assume standard modern wood-and-plaster walls (PD 3, ED 3, BODY 4) throughout the Base generally, with reinforced concrete walls for the cells/vaults.

Standard Cell: +5 PD, +7 ED, and +6 BODY (24 Active Points); Partial Coverage (-2). Total cost: 4 points.

Anti-Intangibility Cell: Affects Desolidified (+½) for 8 PD/10 ED (13 Active Points); Partial Coverage (-2), Costs Endurance (-½). Total cost: 4 points.

Anti-Psionic Cell: Mental Defense (30 points) (30 Active Points); Partial Coverage (-2), Costs Endurance (-½). Total cost: 9 points.

Anti-Teleport Cell: Cannot Be Escaped With Teleportation (x2; +½) for 8 PD/10 ED (24 Active Points); Partial Coverage (-2), Costs Endurance (-½). Total cost: 4 points.

Reinforced Cell: +10 PD and +10 ED (30 Active Points); Partial Coverage (-2). Total cost: 10 points.

Weakness Cell: Suppress STR 6d6, Reduced Endurance (½ END; +¼) (75 Active Points); Only Within Defined Area (-2), Can't Reduce STR Below 10 (-0), Costs Endurance (to maintain; -½). Total cost: 21 points.

SELF-DESTRUCT SYSTEM

Many Bases, particularly military ones, contain valuable technology or information. Rather than allow these things to fall into an enemy's hands, the staff activates a self-destruct system to blow the entire Base to smithereens. In other, more fiendish, situations, a master villain with remote access to a Base might blow it up to keep the heroes from finding out about his plans — despite the fact that some of his minions are still on board.

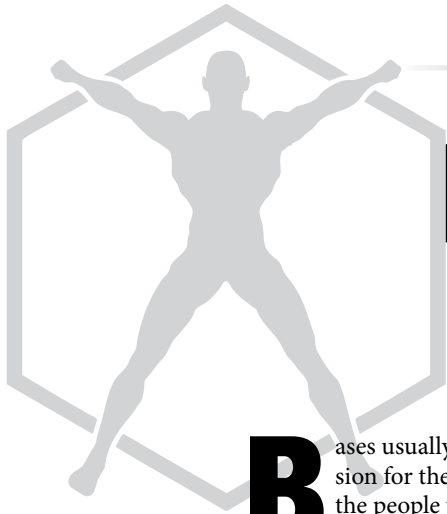
Self-destruct systems are built as Ranged Killing Attacks with the Advantage *Area Of Effect* (Radius Explosion) and the Limitations *No Range*, *Self Only*, and *1 Charge Which Never Recovers* (-4) Limitations. (Usually a self-destruct system does *not* take the *Focus* Limitation; that would make it too easy for an enemy to accidentally set it off.) You should buy enough DCs of RKA so that the average roll equals the BODY needed to destroy the Base (see page 13)... or at least to destroy the crucial areas where the explosives are placed, since the Explosion effect reduces damage as the blast spreads. (In the case of a multi-story structure, a properly-placed small self-destruct system may be enough to eliminate the ground floor, causing the rest of the building to collapse on its own.) A self-destruct device may take other Power Modifiers, such as Trigger (the ability to set the blast off instantly in a defined way), Extra Time, and the like.

In some cases, self-destruct systems are arranged so that even if their blast alone doesn't destroy the Base, it causes dangerous or volatile systems — stored fuel, chemicals, or the like — to detonate as well. The end result may be a massive explosion capable of damaging anyone or anything nearby; the GM determines the final outcome.

Self-Destruct System (On-Site Activation): RKA 14d6, Trigger (pressing a big red button after entering authorization codes; +¼) (262 Active Points); Extra Time (takes 1 Minute for activation procedure, and once activated, takes 1 Minute to arm and detonate; -1½), No Range (-½), Self Only (-½), Real Weapon (-¼), 1 Charge Which Never Recovers (-4). Total cost: 34 points.

Remote Detonation Option: Change Trigger to “when radio signal is sent and received” and remove Extra Time (-1½). 262 Active Points; total cost 42 points.





PERSONNEL SYSTEMS

Bases usually need to make some provision for the comfort and happiness of the people who live and work in them. In game terms a lot of this doesn't need to be defined with Character Points; if a character wants his secret headquarters to be especially luxurious or have numerous entertainment options, it's usually all right just to let it have those things (see pages 36-40). But a few personnel-related systems do require some rules definitions, since how they work may affect game play from time to time.

Gravity

Gravity is a consideration for Bases in outer space. In many cases, it's almost as important as life support — it's hard to get most jobs done, much less fight in a star-battle, if everyone inside's flailing around in zero-G!

There are two basic ways to generate gravity. The first is to spin the Base so that centrifugal force holds the contents and inhabitants of the Base against the floors and hull with the same force as planetary gravity. This is typically the only solution available in low-tech settings, and it dictates many features of space station design — long, symmetrical structures (cylinders or wheels, typically) are necessary.

The second is the “rubber science” method of artificial gravity generation, usually through special “plates” or “generators” built into each deck of a Base. This allows for any sort of starbase design. The occupants may also be able to selectively decrease (or perhaps increase) the gravity from place to place in the Base by controlling the gravity generators.

In either case, you can simulate gravity as Telekinesis with the Limitation *Only To Pull Objects Straight Down To The Floor* (-1) (this is a broader and more restrictive form of the *Affects Whole Object* Limitation). Normal Earth gravity (1 G) is equivalent to 5 STR Telekinesis, with every +5 STR equaling +1 G (10 STR is 2 G, 15 STR is 3 G, and so forth). This gravity applies throughout the Base; you do not have to add the *Area Of Effect*

Advantage to it. However, for artificial gravity generators, ships may, with the GM's permission, apply the *Selective* (+½) Advantage to the Telekinesis so they can give some areas stronger gravity, and some lighter gravity.

For general rules about gravity, see *Star Hero*.

Spinning Gravity (gravity generated by spinning the Base): Telekinesis (5 STR) (9 Active Points); Only To Pull Objects Straight Down To The Floor (-1), Must Maintain Spin (-¼). Total cost: 4 points.

Artificial Gravity: This represents a system that generates gravity artificially. It can go as high as STR 20 (4 G), though it's usually kept at STR 5 (1 G).

Telekinesis (20 STR), Selective (+½) (45 Active Points); OIF Immobile (-1½), Only To Pull Objects Straight Down To The Floor (-1). Total cost: 15 points.

Holographic Entertainment Suite

In some Science Fiction settings, characters on space stations can fulfill their need for entertainment and recreation in ultra-advanced holography chambers that use photons and inert raw materials to create any sort of “reality” or adventure they can imagine. It looks, sounds, and sometimes even feels real, but it's all just an elaborate illusion (at least until the controls malfunction and the holograms gain the ability to kill...). Here's how a “holographic entertainment room” might look in *HERO System* terms:

Sight, Hearing, and Touch Group Images, -3 to PER Rolls, Area Of Effect (30m Radius; +1) (58 Active Points); OIF Immobile (-1½), Only Within Defined Area (30m radius chamber; -2). Total cost: 13 points.

Life Support

Perhaps the most crucial systems on Bases built in hostile environments — a mad scientist's undersea laboratory, a science Base on a remote planet, any Base in outer space — are the *life support systems*, which keep the occupants alive. Space bases must provide the following sorts of Life Support: Self-Contained Breathing, Safe Environments (High Radiation, Intense Cold, Intense Heat, Low Pressure/Vacuum). Underwater Bases must provide Self-Contained Breathing and Safe Environments (High Pressure, Intense Cold).

Most environmental protection systems are just part of having an airtight, insulated exterior wall system, but breathing requires some complex equipment. Supplying oxygen (or other breathing gases, as appropriate to the species) to people in space is done in one of two ways: Consumable or Regenerative.

Consumable life support means just a big tank of air, which gets used up over time. You can simulate this with a Fuel Charge, or simply make it the special effect of having the Base's Life Support cost no END. The longer the voyage and the larger the crew, the more appropriate the "0 END" solution becomes.

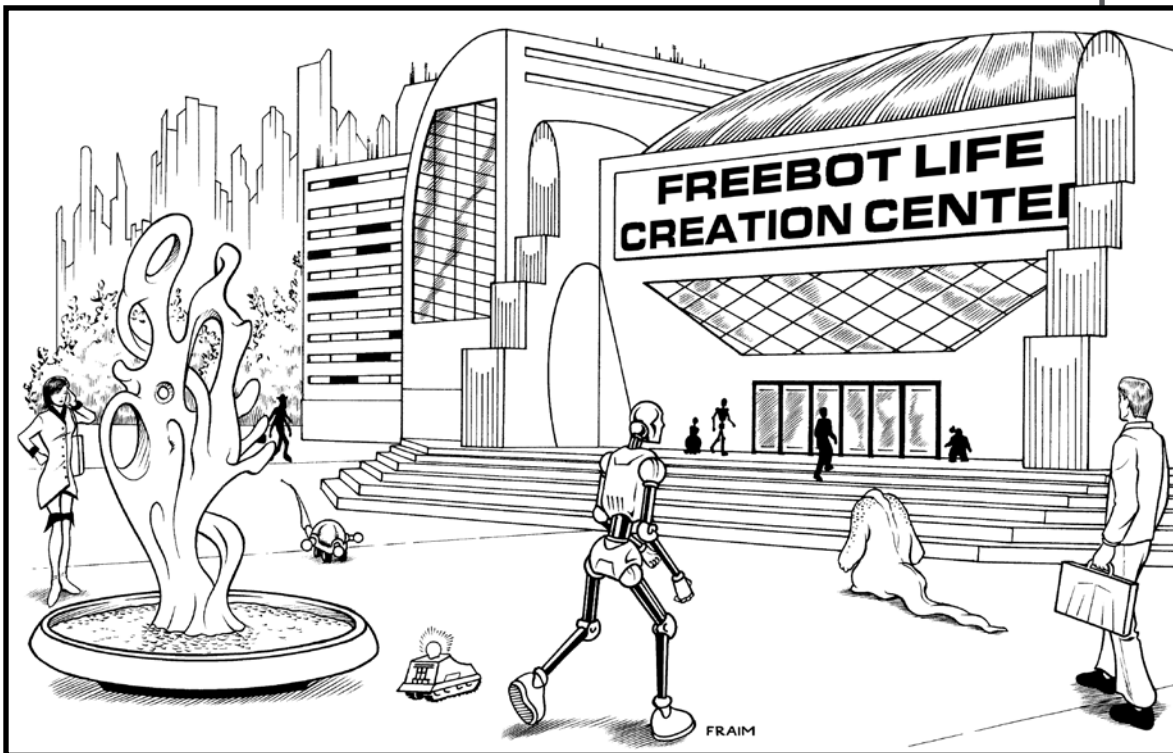
Regenerative breathing systems use greenhouses (at current and near-future technology), "atmospheric scrubbers," or nanotech systems to convert carbon dioxide back into oxygen for the crew to breathe. They can operate indefinitely as long as there's power, which means you should buy the Life Support as having an END cost. Greenhouses are fairly bulky — assume 1 cubic meter of greenhouses for every 4 people that can use the Base at once. Nanotech recyclers or air tanks are more compact, taking up 1 cubic meter for every 100 people.

In the game, a Base running out of oxygen presents the heroes with a serious problem to solve and lots of opportunities for suspense and adventure (see Arthur C. Clarke's short story "Breaking Strain," or many episodes of *Star Trek*, for some good examples). Despite the fact that most Bases' life support systems supposedly contain multiple redundant backups and other safeguards, somehow an accident or invader always seems to find a way to disable life support.

In some circumstances, life support includes providing enough food and water for the Base's occupants. (This is the case in a science Base on a distant, uninhabited planet, for example, but not on a large commercial space station where occupants have to buy their own food and drink.) You buy this as the *Diminished Eating* category of Life Support, with the special effect being that the Base "provides" consumables for the occupants. This may cost no END (representing stored preserved food which the crew can cook using minimal power), or have an END cost (representing the power needed to refrigerate and prepare the food). Fuel Charges may be an appropriate Limitation instead of Costs Endurance.

Starbase Main Life Support System: Life Support (Self-Contained Breathing; Safe Environments: High Radiation, Intense Cold, Intense Heat, Low Pressure/Vacuum) (18 Active Points); Costs Endurance (-½). Total cost: 12 points.

Starbase Backup Life Support System: Life Support (Self-Contained Breathing; Safe Environments: High Radiation, Intense Cold, Intense Heat, Low Pressure/Vacuum) (18 Active Points); Only Within Affected Area (5m x 5m x 3m chamber; -2), 1 Continuing Fuel Charge (easily replaced from sources outside the Base; 1 Month; -0). Total cost: 6 points.



Sealab Alpha-7's Life Support System: Life Support (Self-Contained Breathing; Safe Environments: High Pressure, Intense Cold) (14 Active Points); Costs Endurance (-½). Total cost: 9 points.

Food Supplies: Life Support (Diminished Eating; no need to eat) (3 Active Points); 1 Continuing Fuel Charge (easily replaced from sources outside the Base; 1 Month; -0). Total cost: 3 points.

Well: A good castle designer always tries to include at least one well within the walls so that defenders won't succumb to dehydration during a siege. Life Support (Diminished Eating; no need to eat) (3 Active Points); Only Applies To Drinking (-1). Total cost: 1 point.

Medical Systems

Many large Bases have their own medical facilities — infirmaries or sickbays, as they're sometimes called. Typically a Base's medical facilities are built as labs for Paramedics and various Science Skills (like Biology and Medicine), and occupy 1 cubic meter of space per ten people in the average occupancy, plus 1 cubic meter per doctor intended to work in the facility at once.

Some of the Base equipment characters might encounter in a medical facility include:

Autodoctor: A marvel of Science Fiction technology, this device is a small chamber on a pedestal. A person seals himself in, and the computers operating the Autodoctor go to work, using its built-in diagnostic systems and medical technology to repair injured bodies, cure illnesses, and otherwise restore the character to good health. This often takes a long time — a minimum of 1 Minute, but usually one hour to one day per BODY lost.

Simplified Healing 8d6 (80 Active Points); OAF Immobile (-2), Extra Time (see text; -1½), Requires A Paramedics Roll (-½). Total cost: 16 points.

Diagnostic Systems: The medical facility comes equipped with various sensors and scanners that can determine a character's illnesses and injuries with a high degree of precision.

Detect Health Status And Physical Integrity Of Patient 18- (Radio Group), Discriminatory, Analyze (29 Active Points); OAF Immobile (-2), Extra Time (take a minimum of 1 Turn, and perhaps as much as 1 Hour or more, to scan and analyze patient; -1¼), Costs Endurance (-½). Total cost: 7 points.

Improved Medical Facilities: The general quality of the equipment in the medical facility is so high, it makes the doctors' jobs easier.

Improved Medical Facilities: +2 with all Medical Skills (8 Active Points); OIF Immobile (-1½), Only Within Affected Area (sickbay itself; -2), Costs Endurance (-½). Total cost: 2 points.

Advanced Medical Facilities: Increase to +3 (12 Active Points; total cost 2 points).

Very Advanced Medical Facilities: Increase to +4 (16 Active Points; total cost 3 points).

Teleporters

In some Science Fiction settings, Bases often come equipped with teleportation devices that allow the occupants to get from the Base to a planet (or a ship, or another Base...) instantly and without having to enter a dangerous environment. Here's an example of one type of teleporter; for more information and examples, see *Star Hero*.

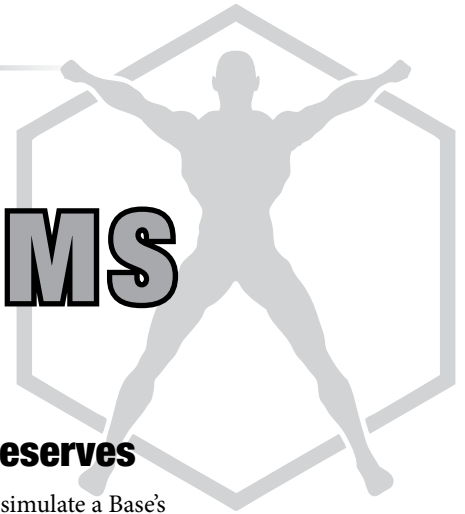
Quantum Displacement Transporter: A standard teleportation device found on starships, space stations, and developed worlds. It typically consists of a chamber containing one or more "teleportation pads" on which the users stand, while another character operates the controls. It's particularly handy for teleporting personnel and objects to and from a planet's surface. It requires similarly MegaScaled sensors to locate the destination (or the objects to be teleported to the device).

Cost Power

- 107 **Quantum Displacement Transporter:** Multi-power, 320-point reserve, all OIF Immobile (-1½), Extra Time (Full Phase; -½)
- 4f **1) Teleporting Away:** Teleportation 20m, x8 Increased Mass, Position Shift, MegaScale (1m = 100,000 km; +2¼); OIF Immobile (-1½), Extra Time (Full Phase; -½)
- 11f **2) Teleporting To:** Teleportation 20m, x8 Increased Mass, Position Shift, MegaScale (1m = 100,000 km; +2¼), Usable As Attack (+1), Ranged (+½), MegaRange (1m = 100,000 km; +2¼); OIF Immobile (-1½), Extra Time (Full Phase; -½)

Total cost: 122 points.

POWER SYSTEMS



Bases usually require a source of power to keep them (and their systems) running. There are three primary ways to power a Base in *HERO System* terms: power provided by an external source; equipment bought to cost no END; and Endurance Reserves.

External Power Sources

As noted on page 18, a Base can be hooked up to the local power grid for free (assuming there's one to hook up to, of course!). This can save a lot of Character Points, but it's not a good idea for every Base. For example, if a Base wants to remain hidden, it may prefer to have its own power supply so that its existence/location can't be discerned by analyzing the Base's drain on the local power system.

Additionally, some Base equipment uses *the operator's* END, not the END from an Endurance Reserve or any other source (this may involve applying the *Costs Endurance* Limitation to that piece of equipment). For example, some Base-mounted weapons might require their operators to exert themselves. Similarly, in some Cyberpunk or Science Fiction settings, it may be possible for characters to "jack in" to a Base directly and run the Base in part through expenditure of their own END.

Equipment That Does Not Cost Endurance

With the GM's permission characters can buy all the equipment on a Base as costing no END. This works particularly well for simple Bases, not as well for complex Modern and Science Fiction Bases. The advantage to this is it's simpler; it eliminates END bookkeeping. The drawbacks are that (a) it increases the expense of the Base, and (b) it removes the potential drama and fun of the Base running out of power in crucial situations. However, if the GM and players are willing to roleplay "we're runnin' outta power, Commander!" situations without regard for the rules, this option may work best for the campaign.

Endurance Reserves

The most common way to simulate a Base's power is for the Base to have an Endurance Reserve. Virtually every system on the Base, even basics like artificial gravity and life support, runs off this power. Therefore, when determining the END and REC of the Endurance Reserve, you need to take into account both the "basic" systems (things the Base needs to run all the time, like life support) and things that aren't always in use (defensive shields, weapons, and so forth). For story purposes, ideally the Base should have enough power to run its basic and a few military systems at normal strength without difficulty. But if it starts Pushing weapons, using lots of weapons, or the like, it has to dip into "power reserves" (smaller, backup Endurance Reserves), or conserve power, lest it risk running out of energy.

For "basics" that a Base maintains constantly (like gravity and life support), and which affect the entire Base (or a significant part of it), consider them the equivalent of Constant Area Of Effect attacks: they remain in existence on the Segments between the Base's Phases. However, the Base only pays END for them on its Phases (remember, Bases have SPD 3 for this purpose). For equipment not in constant use, like weapons and cloaking devices, END expenditure depends on the SPD of the Computer or character operating them.

Ordinarily, a character with an Endurance Reserve specifies whether a power uses personal END or Reserve END. A Base has no personal END, so it always uses Reserve END. If a Base has multiple Endurance Reserves (typically defined as "auxiliary" power or the like), it may draw END from any of them without paying for an Advantage or the like. (Sometimes, Limitations on the Reserve restrict which systems can draw END from it.)

The text below describes some examples of Endurance Reserve-based power systems. If none of those work for the Base you have in mind, you can easily use them as examples for designing your own.

“I NEED MORE POWER!”

A common trope in many stories is for characters to increase the power to a system on a Base to improve that system's performance — they boost the sensors to detect something at greater range, increase the strength of their Base's weapons to punch through an enemy's defenses, or enhance a force-field to withstand the effects of an attack.

In *HERO System* terms, increasing equipment performance by pumping in more power is best reflected by Pushing. Even in Heroic campaigns, GMs should normally allow at least 10 Character Points' worth of Pushing for Base equipment, with no need for an EGO Roll. However, the GM may require a Systems Operation roll to route the power successfully, and/or an Electronics or Mechanics roll to keep from damaging the system with the roll of extra power.

Gamemasters may even want to consider allowing characters to Push Base equipment for *more* than 10 points' worth of effect. There are several ways to approach this. First, GMs can require Bases to pay for the privilege — they buy extra points' worth of effect for their equipment, with the Limitations *Only When Pushing* (-1) and *Increased Endurance Cost* (x10 END; -4). However, that can get expensive, and clutters up the Base's character sheet. Second, GMs can simply increase the Pushing threshold — perhaps to 20 points, or maybe varying from system to system (“In this campaign, you can Push sensors for 10 points' worth of effect, weapons for 20 points, and defenses for 30 points, at the standard END cost for Pushing”). Alternately, the effect may depend on the appropriate roll: a character who makes the necessary Skill Roll (typically Systems Operation, Electronics, Mechanics, or Computer Programming) exactly can Push for 10 points of effect, with +5 points per point the roll is made by, to a predefined maximum. The exact parameters depend on the dramatic effect the GM wants to achieve — some campaigns benefit from the dramatic scenes where a character says, “More power to the lasers!”, others don't.

RESERVE AND AUXILIARY POWER

Many Bases have one or more backup power sources, usually referred to as reserve power, auxiliary power, batteries, or the like. Some also have specific power sources dedicated to one system or weapon, to keep it functioning when the rest of the Base's power has dwindled or been exhausted. In *HERO System* terms, these are just other Endurance Reserves, typically bought using the 5-point doubling rule but defined as having less END/REC than the main Reserve (and sometimes Limitations such as *Only Powers Specific System*, typically a -¼).

REAL WORLD POWER SUPPLIES

These sources of power actually exist in real life, or could plausibly be developed in the future.

STEAM ENGINES

Steam engines have been in common use (mainly for vehicles) since the early 1800s, though the principles behind them were known almost 2,000 years ago, and the first steam-powered ocean vessel, the *Gran Louis*, was launched in 1751. They consist of a boiler where a wood- or coal-fueled fire heats water until it becomes steam, and an engine into which the pressurized steam is released to work pistons. Early steam engines led to forced draft steam engines, and then to triple- and quadruple-expansion steam engines, both of which allowed for higher pressures and smoother working. It takes one minute to get a steam engine started (an *Extra Time* Limitation).

Using a steam engine to supply power to a Base is unlikely — after all, Bases in most of the steam era are unlikely to have much equipment that would need power — but it could be just the thing for, say, a Victorian steampunk sort of campaign.

Early Steam Engine: Endurance Reserve (16 END, 15 REC) (14 Active Points); OAF Immobile Fragile (-2¼), Extra Time (1 Minute to start; -¾). Total cost: 3 points.

Forced Draft Steam Engine: Endurance Reserve (20 END, 20 REC) (19 Active Points); OAF Immobile Fragile (-2¼), Extra Time (1 Minute to start; -¾). Total cost: 5 points.

Triple-Expansion Steam Engine: Endurance Reserve (24 END, 24 REC) (22 Active Points); OAF Immobile Fragile (-2¼), Extra Time (1 Minute to start; -¾). Total cost: 5 points.

Quadruple-Expansion Steam Engine: Endurance Reserve (30 END, 30 REC) (28 Active Points); OAF Immobile Fragile (-2¼), Extra Time (1 Minute to start; -¾). Total cost: 7 points.

Steampunk Engine: An enormous, clanking, clockwork-and-steam-powered engine such as those found in “steampunk” fiction. Endurance Reserve (45 END, 45 REC) (42 Active Points); OAF Immobile Fragile (-2¼), Extra Time (1 Minute to start; -¾). Total cost: 10 points.

INTERNAL COMBUSTION ENGINES

Internal combustion engines ignite fuel inside an enclosed cylinder to work a piston. They're most commonly found in vehicles, but in a Base context are often used for building modern generators.

Gas-burning engines burn a mixture of fuel and oxygen; diesel engines compress the fuel to ignite it. Until the 1930s an internal combustion engine had to be hand-cranked to start it (an *Extra Time* Limitation); thereafter electric starters were possible. Advanced engines are made of lighter-weight metals (or even ceramics), and can burn other fuels (such as hydrogen-oxygen mixtures).

Early Internal Combustion Engine: Endurance Reserve (21 END, 21 REC) (20 Active Points); OAF Immobile Fragile (-2¼), Extra Time (1 Turn to start; -½). Total cost: 5 points.

Standard Internal Combustion Engine: Endurance Reserve (30 END, 30 REC) (28 Active Points); OAF Immobile (-2). Total cost: 9 points.

Advanced Internal Combustion Engine: Endurance Reserve (40 END, 40 REC) (38 Active Points); OAF Immobile (-2). Total cost: 13 points.

Standard Internal Combustion Engine: Endurance Reserve (50 END, 50 REC) (47 Active Points); OAF Immobile (-2). Total cost: 16 points.

TURBINES

Turbines turn a series of vanes to produce rotary motion. This is simpler than working a piston, and so usually allows for a lighter-weight engine. Steam turbines were used in bases beginning in 1896, and gas turbines deriving from jet engine technology exist during the latter half of the twentieth century. Magnetohydrodynamic turbines, using magnetic fields and ionized plasma, are even more powerful than gas turbines.

Steam Turbine: Endurance Reserve (24 END, 24 REC) (22 Active Points); OAF Immobile Fragile (-2), Extra Time (1 Minute to start; -¾). Total cost: 6 points.

Gas Turbine: Endurance Reserve (40 END, 40 REC) (38 Active Points); OAF Immobile (-2). Total cost: 13 points.

Magnetohydrodynamic Turbine: Endurance Reserve (72 END, 72 REC) (66 Active Points); OAF Immobile (-2). Total cost: 22 points.

SOLAR POWER

Solar power is abundant, especially in space, and requires no fuel, but the solar panels to collect it are often large and bulky — the larger the panels, the more power they can generate. However, the primary difficulty with solar power is not panel size, but the fact that the farther away the panels are from a star, the less power they generate. For example, a solar panel at the orbit of Mars produces only half the power of the same-size panel in Earth's orbit; at Jupiter, the same panel generates 1/25 of the energy it generates at Earth. Fortunately, Bases don't move, so a Base's creator can determine exactly how much power he can get from solar panels at his Base's location.

A 2.6 square meter solar power array can generate up to 12 END, 12 REC on, or in orbit of, Earth. Add at least 2.6 more square meters to the array for each additional point of END and REC (keep the two equal).

As of the early twenty-first century, each 2.6 square meters of solar cells has a mass of 10 kilograms. Advanced technology makes cells lighter and cheaper: by the middle twenty-first century, the same size panel masses only 5 kilograms, and the weight in most settings continues to go down from there as the decades progress.

Solar Panel: This is a 65 square meter panel generating enough power for a small space station or spaceship. Endurance Reserve (36 END, 36 REC) (33 Active Points); OAF Immobile Fragile (-2¼). Total cost: 10 points.

FUEL CELLS

Fuel cells burn hydrogen and oxygen to produce electricity. Some versions can run on other combinations of reactive gases, but hydrogen-oxygen cells are popular because their waste is fresh water. While fuel cells are compact and powerful, they do require fuel on a monthly basis, making them less useful for isolated Bases.

A basic fuel cell has a mass of approximately 1 kilogram. It can produce up to 4 END, 4 REC, and uses 1 liter of fuel per hour in the process. For up to each +4 END/+4 REC, double the number of cells.

Fuel Cell Generator: This array of fuel cells includes enough fuel for a month's operation and has a total mass of 2,500 kg. Endurance Reserve (20 END, 20 REC) (19 Active Points); OAF Immobile (-2), Requires Fuel (-¼). Total cost: 6 points.

NUCLEAR FISSION

This is what most people mean by “nuclear power” — a tested and reliable technology that generates power by splitting atoms. As of the early twenty-first century, nuclear fission supplies a quarter of the United States's electricity and allows France to be an energy exporter without oil. Modern Earth nuclear reactors are large and bulky, useful only when really huge amounts of power are needed. They can run for up to 5 years between refueling. A reactor masses about 10 metric tons per 20 END, 20 REC produced.

Technology can improve reactors somewhat, reducing the mass of shielding and the cost. Halve the weight, volume, and cost of a fission power plant at near-future (Cyberpunk) technology levels, and again a generation later. After that stage of technological development, fusion powerplants replace fission powerplants.

Nuclear Reactor: A modern reactor (such as a submarine or interplanetary spacecraft might carry) that masses about 100 metric tons. Endurance Reserve (204 END, 204 REC) (187 Active Points); OAF Immobile (-2). Total cost: 62 points.



SPECULATIVE AND RUBBER SCIENCE POWER SUPPLIES

Science Fiction writers and space scientists have suggested several possibilities for new power sources. Some of them will probably become practical in the future, while others remain in the realm of rubber science. Since all of these are highly speculative, mass and cost are just estimates.

Since Science Fiction campaigns often involve multiple types of technology, not all of which necessarily use electricity, these Endurance Reserves take the Limitation *Only Powers Electrical Devices* (-¼). If that's not appropriate for your campaign, just recalculate the cost without it.

FUSION POWER

Nuclear fusion power is the most likely candidate for a new type of power generation, at least in the near future. Current research is creeping towards a fusion reactor that produces more power than it consumes. A fusion powerplant would need only a few kilograms of deuterium or helium-3 to produce large amounts of power for long periods. Just like fission plants, fusion generators require some fairly heavy shielding.

A fusion powerplant when the technology first becomes available in the early-mid twenty-first century has a mass of 500 kilograms per 20 END, 20 REC generated (fusion reactors are lighter than fission powerplants, but bulkier). Technology rapidly improves fusion powerplants, allowing them to generate more power per kilogram for less cost.

Starbase Fusion Plant: This fusion plant is suitable for interstellar spacecraft. It has a 10-year supply of deuterium fuel and a mass of as much as 4 metric tons.

Early Starbase Fusion Plant: Endurance Reserve (156 END, 156 REC) (143 Active Points); OAF Immobile (-2), Only Powers Electrical Devices (-¼). Total cost: 44 points.

Other Models:

- *Advanced:* Endurance Reserve (210 END, 210 REC) (192 Active Points; total cost 59 points).
- *UltraAdvanced:* Endurance Reserve (250 END, 250 REC) (230 Active Points; total cost 71 points).

COLD FUSION

A variant form of fusion power, “cold fusion” was announced with great fanfare in the late 1980s and then quietly dropped when the researchers discovered flaws in their experiment. Cold fusion uses as-yet-undiscovered chemical or electrochemical means to cause fusion a few atoms at a time. The energy given off is low, but cold fusion generators don't need any shielding and are very compact.

When they first appear, cold fusion cells weigh 1 kilogram per 2 END, 2 REC. The heavy water in a cold fusion cell lasts 1 year before replenishing. Technology rapidly improves cold fusion cells, increasing the output more than decreasing the size.

Base Cold Fusion Generator: Endurance Reserve (90 END, 90 REC) (83 Active Points); OAF Immobile (-2), Only Powers Electrical Devices (-¼). Total cost: 25 points.

ANTIMATTER POWER

Well-known to SF fans from its use on *Star Trek*, antimatter power is the ultimate form of nuclear energy because it converts all the mass of its fuel into energy. Tiny amounts of matter combined with antimatter would result in immediate annihilation of both in a reaction releasing immense amounts of power. Aside from containing and channeling this immensely powerful reaction, the chief problem is that antimatter doesn't occur naturally. Civilizations can't mine it, they must manufacture it. It may someday be used as a means of storing and transporting energy, with huge solar-powered antimatter factories in remote star systems generating antimatter by the gram for distribution to planets and starbases. Handling antimatter is extremely tricky — it requires magnetic force-fields and the like — and an accident could wipe out an entire facility, continent, or planet.

Given the rubber science involved, an antimatter reactor usually doesn't need heavy shielding, but does require special containers for the antimatter. Early antimatter generators weigh 1 ton per 20 END, 20 REC; a single gram of fuel suffices to run the plant for a year. Technological advances can improve antimatter power substantially, increasing power output and decreasing cost and weight.

5



Starbase Antimatter Reactor: This is a large, powerful reactor capable of running a major space station. It weighs six tons or more.

Low-Powered Antimatter Reactor: Endurance Reserve (250 END, 250 REC) (230 Active Points); OAF Immobile (-2), Only Powers Electrical Devices (-¼). Total cost: 71 points.

Other Models:

- *Standard:* Endurance Reserve (500 END, 500 REC) (459 Active Points; total cost 141 points).
- *High-Powered:* Endurance Reserve (1,000 END, 1,000 REC) (918 Active Points; total cost 282 points).
- *Very High-Powered:* Endurance Reserve (2,000 END, 2,000 REC) (1,834 Active Points; total cost 564 points).

SINGULARITY POWER

Singularity power sources make use of tiny black holes, either artificially created in giant particle accelerators or left over from the early days of the universe, contained in special force-fields. Feeding mass into the black hole causes the matter to release almost all its energy. This means a singularity powerplant can use anything for fuel. On the other hand, all the mass remains in the singularity, which makes it gain weight over time (at the rate of 1 kg per year). Singularity power sources don't scale down well — they can provide energy for a large starbase or even a whole planet, but not for a minor science outpost or a small orbital fortress.

The singularity inside a power plant is an extremely valuable object — salvagers and pirates may want to recover or steal it, and finding a singularity is an excellent adventure hook. However, it's also extremely dangerous. If the force-fields and other safeguards holding it “inert” are shut off, the black hole “manifests” in real space, destroying objects on an interstellar scale.

At first introduction a Base-mounted singularity plant generates 400 END, 400 REC and masses 400 metric tons or more (plus the mass of the singularity, which starts at 100 metric tons). As technology progresses, the plant becomes smaller and lighter, and the power output increases significantly.

Singularity Generator: This device, which masses 500 metric tons or more, is designed to power a large starbase.

Low-Powered Singularity Engine: Endurance Reserve (400 END, 400 REC) (368 Active Points); OAF Immobile (-2), Only Powers Electrical Devices (-¼). Total cost: 113 points.

Other Models:

- *Standard:* Endurance Reserve (750 END, 750 REC) (688 Active Points; total cost 211 points).
- *High-Powered:* Endurance Reserve (1,500 END, 1,500 REC) (1,375 Active Points; total cost 423 points).
- *Very High-Powered:* Endurance Reserve (3,000 END, 3,000 REC) (2,750 Active Points; total cost 846 points).

ZERO POINT POWER

Zero Point Energy is a theoretical method of using the energy inherent in space itself. If this could actually be accomplished, it would effectively be perpetual motion — free energy from nothing at all. It could also be a terrifying weapon if the release of energy could be triggered from a distance. This is serious “rubber science” at present, although it has a basis in real physics. Power output, costs, and weights are pure guesswork, but should eventually become better than fusion (though probably not as good as antimatter or singularity power).

Starbase Zero Point Power Generator: A large generator designed to provide zero point power to an entire space station.

Early Starship Zero Point Power Generator: Endurance Reserve (200 END, 200 REC) (184 Active Points); OAF Immobile (-2), Only Powers Electrical Devices (-¼). Total cost: 57 points.

Other Models:

- *Advanced:* Endurance Reserve (250 END, 250 REC) (231 Active Points; total cost 71 points).
- *UltraAdvanced:* Endurance Reserve (300 END, 300 REC) (275 Active Points; total cost 85 points).

MAGIC POWER

In fantasy settings, it may be possible to generate power with magic spells. For example, a “sorcerous engine” might use a perpetual kinetic-motion spell to keep an engine running virtually forever, cranking out power for a castle the entire time. A wizard's keep might have inside its donjon the Crystal Heart of Tar'anath, a rock pulsating with magical energy that powers the Base's mystic weapons. Given the breadth and power of magic, there's no limit to the amount of END a magical engine could generate, except restrictions imposed by the GM based on the way magic works in his campaign or considerations of game balance.





SENSORS AND COMMUNICATIONS

Many Bases need a way for their occupants to communicate with people outside the Base, and to detect and perceive external phenomena. Collectively, systems that allow a Base to do this are referred to as “sensors and communications.”

General Rules

Here are some rules for communications and sensor systems generally. See *Star Hero* for more information on the implications of different types of systems.

SENSORS AND COMMUNICATIONS MASS AND VOLUME

Typically sensor and communications systems occupy a volume of 1-2 cubic meters per 5-10 Active Points, and have a mass of up to .5 kg per Active Point. As always, the GM may vary this as he sees fit.

SENSE-AFFECTING POWERS

Sensor and communications systems often take the *Affected As More Than One Sense* Limitation (6E1 60). In this case, what it typically refers to is the operator of the equipment, or other occupants of the Base, being affected by a Sense-Affecting Power. For example, a weapons officer cannot view his Base’s radar screen if his Sight’s been Flashed, so both Radio Group Flashes and Sight Group Flashes “affect” the radar — though a Computer installed in the Base could still use the radar system, since it has no eyes to Flash. Similarly, a character cannot use a radio if he’s deafened, or a viewscreen if he’s blinded. As always, the GM should interpret the impact of the Limitation in light of common sense, dramatic sense, and considerations of game balance.

COMMUNICATIONS SYSTEMS

Bases mostly communicate via radio or light beams — or, in some Star Hero campaigns, via rubber science methods that allow instantaneous communication across vast distances. In game terms, communication systems are simply the appropriate Senses (sensor systems; see below) with the *Transmit* Sense Modifier. Radio Perception, Radio Perception/Transmission, and High Range Radio Perception (HRRP) are the most common Senses used for communications devices.

In Science Fiction games and other campaigns where characters need to communicate over vast distances, communication systems often include the *Increased Maximum Range* or *MegaScale* Advantages. Ordinarily characters shouldn’t apply Advantages to Senses, but in this case GMs should allow it for the sake of simplicity and smooth game play.

COMMUNICATIONS AND LIGHTSPEED

In some Star Hero campaigns, characters only have communication systems that work at STL speeds (or, at most, the speed of light). These communicators can apply a Limitation, *Lightspeed Delay* (-½), to their *MegaScale* Advantage. This means that at ranges over 300,000 kilometers, a lightspeed lag of one second per +300,000 kilometers distance occurs. Thus, it may take hours to get a reply from a message sent to another system, and communications across the Galaxy are impossible. Faster-than-light communications get *MegaScale* without the *Lightspeed Delay* Limitation (though the GM may still, in his discretion, impose a slight time lag over long distances).

Base Radio: Many Bases could have a standard AM/FM radio as “Everybase Equipment” if the GM doesn’t object, but more advanced radio sets that allow them to Transmit cost Character Points. You might find this sort of radio in an isolated wilderness outpost or military fortress, for example.

Radio Perception/Transmission (Radio Group) (10 Active Points); OAF (-1), Affected As Hearing Group As Well As Radio Group (-¼). Total cost: 4 points.

Communications Suite: A wide-band communications system. This could include a superhero team's Worldwide Crisis Monitoring Room (complete with wall-sized viewscreen!), an espionage agency's communications and surveillance setup, or a starbase's hyperradio system.

HRRP (Radio Group) (12 Active Points); OAF Immobile (-2), Affected As Sight And Hearing Group As Well As Radio Group (-½). Total cost: 3 points.

Space Base Option: Add MegaScale (1 light-year per Active Point; +4¼) (63 Active Points; total cost 18 points).

SENSOR SYSTEMS

Closely related to communications systems are sensor systems — the eyes and ears of a Base. They range from simple visual cameras to advanced rubber science devices able to detect trace particles from light-years away if properly “configured” (set up or programmed).

Sensors are bought as various Enhanced Senses, often with the *MegaScale* Advantage (as discussed above) and the *Telescopic* Sense Modifier. Characters should ordinarily define a Base's Senses as belonging to the Radio Sense Group (though a few may qualify as Sight Group). Radar is the most common general Sense used by Bases, even if it's defined as a “hyperspace detector” or in some other rubber science way.

In many types of Science Fiction settings, a Base's sensors seem able to detect just about anything (though locating obscure substances or energy phenomena may require the crew to “reconfigure” or “recalibrate” the sensors first). Rather than requiring Base designers to try to think of all the possible Senses a Base needs in advance and pay for them separately, GMs should allow Bases to buy Variable Power Pools just for sensor and communications systems. This constitutes an exception to the general rule against putting Special Powers in Power Frameworks, but it lets the game progress much more smoothly and seem more like typical Science Fiction. If a Base has a Sensor Pool, it can buy the *MegaScale* Advantage for it if desired. The Base may, of course, have some commonly-used senses (such as HRRP) bought outside the Pool, to free up Pool resources.

Because characters using a Base's sensors aren't literally perceiving things with their own Senses, a “Perception Roll” made by a Base's crew should be made using Systems Operation, not a PER Roll. However, a Base's Computer using its Base's sensors would make a PER Roll using its INT, as normal (but any form of interference which penalizes Systems Operation rolls also applies to its PER Roll).

All the sensors described here focus on *external* phenomena. If a Base wants sensors to detect things inside it, it typically buys those separately; see the security sensors on page 170, for example. Of course, if the Base has a Sensor And Communications VPP, it can configure its sensors for internal use if necessary.

Cost Power

66 **Sensor And Communication Systems:** Variable Power Pool (Sensor Pool), 40 base + 40 control cost, MegaScale (1 light-year per Active Point; +4¼); OIF Immobile (-1½), Only For Senses And Communications (-1), Costs Endurance (-½)

15 **Long-Range Sensors:** +20 versus Range for Radio Group; OIF Immobile (-1½)

Total cost: 81 points.

Enhanced Sensor/Communications System:

This represents a base with particularly advanced sensor and communications technology.

+4 to Systems Operation roll (8 Active Points); OIF Immobile (-1½). Total cost: 4 points.

SENSOR AND COMMUNICATION INTERFERENCE

In addition to problems deliberately caused by electronic warfare (see page 158), Bases may experience other forms of interference with their sensor and communications systems. Weather patterns, strange energy fields, nebulae, large masses of rock, and other such phenomena may prevent a Base from using its sensors or communicators, or make using them harder. For example, a Base on one side of a planet may not be able to track an object on the other side of that planet accurately. Gamemasters can represent interference by imposing penalties on the Systems Operation rolls required to operate the sensors and communications system, or by cutting off some (or all) of a transmission. The accompanying table has some suggested modifiers, but since the modifiers depend largely on the type of technology used in the game, the GM should adjust the table to suit his own campaign.

Bases that have advanced sensor and/or communication systems often represent this by buying bonuses to Systems Operation that apply when anyone uses the base's equipment. These bonuses help to counteract interference and make electronic warfare easier.

SENSOR AND COMMUNICATIONS INTERFERENCE

Modifier	Phenomenon
-1 to -3	Intense weather
-1 to -3	Atmospheric electromagnetic interference
-1 to -3	Large masses of rock or earth directly between base and target object
-1 to -5	Energy field (plasma or ion storm, intense solar radiation, or the like)
-1 to -4	Base or target is inside a nebula
-3 to -8	Base or target is inside a star's chromosphere or a planet's polar magnetic field



Computers

Many Bases, particularly advanced military bases and spacecraft, come equipped with computers. Here are just a few examples; many others are possible, since an advanced computer system is often custom-made for a specific Base. Few of the Bases written up in this book were given Computers to save space, but you can easily give any of them one (or more) of the following Base computers, with the programming tailored to the specific Base and campaign.

If you buy a Computer for a Base, determine the Computer's cost separately using the standard rules for a Follower (see 6E1 102), then add it to the cost of the Base after you calculate the Base's final cost.

Example: *Defender buys a 100-point Computer for his Base (costing 100 / 5 = 20 points). When he finishes building his Base, he'll add this 20 points onto the Base's final cost.*

STANDARD BASE COMPUTER

Description: This represents a typical Base computer, programmed to oversee many Base functions but not capable of performing military or tactical tasks like firing weapons (for that, see the Military Computer and Tactical Computer, below). The options detail just some of the many possibilities for customizing this Computer to different settings, genres, and Base types.

Computers on Bases with Endurance Reserves often take the Physical Complication *Requires Endurance From Base* (Infrequently, Slightly Impairing; 10 points). This means they need END (electrical power) to operate — typically 2 END per 100 Character Points (or fraction thereof) the Computer's built with. Other Base Computers have their own batteries or independent power sources.

STANDARD BASE COMPUTER

Val	Char	Cost	Roll	Notes
15	INT	5	12-	PER Roll 12-
12	DEX	4	11-	
5	OCV	10		
5	DCV	10		
3	OMCV	0		
3	DMCV	0		
3	SPD	10		Phases: 4, 8, 12
Total Characteristics Cost: 39				

Cost Skills

- 3 Computer Programming 12-
- 3 Cryptography 12-
- 11 AK: Area In Which Base Operates 20-
- 3 KS: Archived Recent News 12-
- 3 KS: Current News 12-
- 3 KS: Movies Database 12-
- 3 KS: Music Database 12-
- 3 Systems Operation 12-

Programs

- 1 Monitor Base Functions, Report Anomalies
- 1 Open/Lock Accessways
- 1 Operate Sensors To Scan For Designated Phenomena/Object
- 1 Scan And Enter Data
- 1 Search Reference Material For Information On A Topic
- 1 Send Emergency Call If Operator Incapacitated/Killed
- 1 Send Emergency Call If Specified Protocols Are Not Met

Talents

- 3 **Clock:** Absolute Time Sense
- 5 **Memory:** Eidetic Memory
- 3 **Calculator:** Lightning Calculator
- 3 **Instant-On Feature:** Lightsleep
- 6 **Scanner:** Speed Reading (x100)

Total Abilities Cost: 59

Total Computer Cost: 98

Value Complications

- 0 None (or to be chosen by the players)

Total Complications Points: 0

Total Cost: 98/5 = 20

OPTIONS

Cost Power

- +11 **Advanced Computer:** +5 INT, +3 DEX
- +22 **Very Advanced Computer:** +10 INT, +6 DEX
- +33 **Highly Advanced Computer:** +15 INT, +9 DEX
- +44 **Ultra-Advanced Computer:** +20 INT, +12 DEX
- +21 **Cyberkinetic Shielding I:** +7 DMCV
- 15 **Cyberkinetic Shielding II:** Mental Defense (15 points)
- 10 **Hardening I:** Radio Group Flash Defense (10 points)
- 10 **Hardening II:** Power Defense (10 points)
- 12+ **Artificial Intelligence:** Include EGO 10 (or possibly bought up higher), +2 OMCV, +2 DMCV, and at least one 10-point (or more valuable) Psychological Complication
- +1 **Combat Subroutines:** Add WF: Base Weapons
- +15 **Diagnostic Subroutines:** Add Electronics 14-, Mechanics 14-, and Diagnostic Program
- +7 **Navigation Subroutines:** Add Navigation (6 Character Points' worth) and Plot Distance, Travel Times Between Specified Locations
- +20 **Translator:** Universal Translator 12-
- +25 **Science Base Computer:** Add 25 Character Points' worth of Science Skills
- +13 **Underwater Base Computer:** Add KS: Oceanographic Data 16-, KS: Sounds Of Underwater Life Forms 15-, SS: Marine Biology 11-, and SS: Oceanography 11-
- +13 **Space Base Computer:** Add KS: Space Data 16-, KS: Alien Life Forms 15-, SS: Xenobiology 11-, and SS: Astronomy 11-
- +10 **Superhero Base Computer:** Add KS: Superheroes 16-, KS: Supervillains 16-
- +21 **Computer Net Access:** KS: Everything 30-
- +41 **Really Good Computer Net Access:** KS: Everything 50-



MILITARY BASE COMPUTER

Description: This character sheet represents a sophisticated, high-tech computer for use on a military Base. Unlike the Tactical Computer (see below), which is dedicated to a single combat function, this computer can run the entire Base if necessary. In some Bases, it has dedicated sensor technology; and you can take any of the Standard Computer options for it, if desired.

TACTICAL COMPUTER

Description: This character sheet represents a dedicated combat computer. It can fire a Base's weapons, thus freeing the operator and/or crew to do other things (including firing other weapons). Some Bases go so far as to have multiple Tactical Computers, up to as many as one per weapon!

All of the options listed for the Military Base Computer are appropriate for the Tactical Computer.

TACTICAL COMPUTER

Val	Char	Cost	Roll	Notes
13	INT	3	12-	PER Roll 12-
15	DEX	10	12-	
6	OCV	15		
3	DCV	0		
3	OMCV	0		
5	DMCV	6		
3	SPD	10		Phases: 4, 8, 12

Total Characteristics Cost: 44

Cost Skills

- 6 +2 with Base Weapons
- 6 KS: Known Enemies And Threats 15-
- 3 Systems Operation 12-
- 3 Tactics 12-
- 1 WF: Base's Weapons

Programs

- 1 Locate Target
- 1 Analyze Target
- 1 Attack Target

Total Abilities Cost: 22
Total Computer Cost: 66

Value Complications

0 None (or to be chosen by the players)

Total Complications Points: 0
Total Cost: 66/5 = 13

OPTIONS

Cost Power

- +5 **IR Sensors:** Infrared Perception (Sight Group)
- +5 **UV Sensors:** Ultraviolet Perception (Sight Group)
- +15 **Dedicated Radar:** Radar (Radio Group)
- +33 **360 Radar:** Radar (Radio Group), Discriminatory, Increased Arc Of Perception (360 Degrees), Tele-scopic (+8 versus Range Modifier)

MILITARY BASE COMPUTER

Val Char Cost Roll Notes

25	INT	15	14-	PER Roll 14-
20	DEX	10	13-	
8	OCV	30		
5	DCV	10		
3	OMCV	0		
5	DMCV	6		
3	SPD	10		Phases: 4, 8, 12

Total Characteristics Cost: 81

Cost Skills

- 3 Computer Programming 14-
- 3 Cryptography 14-
- 3 Electronics 14-
- 14 AK: appropriate area 25-
- 9 KS: Known Military Technology 20-
- 3 Mechanics 14-
- 2 Navigation (appropriate environment) 14-
- 3 Systems Operation 14-
- 2 TF: as appropriate to Base
- 1 WF: Base Weapons

Programs

- 1 Attack Target
- 1 Diagnose Base Malfunction/Damage
- 1 Engage In Evasive Maneuvers
- 1 Locate Target
- 1 Monitor Sensor Systems, Report Anomalies
- 1 Monitor Base Functions, Report Anomalies
- 1 Obtain Latest Tactical Data Via Communications System
- 1 Open/Lock Accessways
- 1 Operate Sensors To Scan For Designated Phenomena/Object
- 1 Pilot Base From Location A To Location B
- 1 Scan And Enter Data
- 1 Schedule Base Events/Use Of Base's Resources
- 1 Search Reference Material For Information On A Topic
- 1 Send Emergency Call If Designated Personnel Incapacitated/Killed
- 1 Send Emergency Call If Specified Protocols Are Not Met

Talents

- 3 **Clock:** Absolute Time Sense
- 5 **Memory:** Eidetic Memory
- 3 **Calculator:** Lightning Calculator
- 3 **Instant-On Feature:** Lightsleep
- 8 **Scanner:** Speed Reading (x1,000)

Total Abilities Cost: 80

Total Computer Cost: 161

Value Complications

0 None (or to be chosen by the players)

Total Complications Points: 0

Total Cost: 161/5 = 32



PROGRAMS FOR BASE COMPUTERS

In addition to the standard programming found on the typical Base Computer, the following programs are often appropriate. All cost 1 Character Point.

- Analyze Target
- Attack Target
- Diagnose Base Malfunction/Damage
- Locate Target
- Monitor Communications System, Report Anomalies
- Monitor Internal Monitor System, Report Anomalies
- Monitor Sensor Systems, Report Anomalies
- Notify Operator [or Designated Crewmember] If X Occurs
- Obtain Latest Data On Subject X Via Communications System
- Schedule Base's Events/Use Of Base's Resources

Radar

One of the most common sensor systems for Bases that have to track aircraft or airborne foes is *radar* (radio detection and ranging). A radar system sends out pulsed radio waves, then reads and interprets the reflection when those waves hit an object and bounce back to the receiver.

In game terms, radar systems are bought with the Enhanced Sense *Radar* (surprise, surprise) and belong to the Radio Sense Group. They're often (but not always) bought with Increased Arc Of Perception (many radar systems can "see" all around themselves) and Telescopic. If meant for use by people, they take the *Affected As Sight Group As Well As Radio Group* (-½) Limitation, since a blinded person can't read a radar screen. They're also usually OAFs, since it's not hard to break the screen, but may be OIFs if the designer prefers.

Forward-Looking Radar, Type I: Radar (Radio Group) (15 Active Points); OAF Immobility (-2), Affected As Sight Group As Well As Radio Group (-½). Total cost: 5 points.

Other Models:

- *Type II:* Add Telescopic (+4 versus Range Modifier) (19 Active Points; total cost 6 points).
- *Type III:* Add Telescopic (+6 versus Range Modifier) (21 Active Points; total cost 7 points).
- *Type IV:* Add Telescopic (+8 versus Range Modifier) (23 Active Points; total cost 8 points).

360-Degree Radar, Type I: Radar (Radio Group), Increased Arc Of Perception (360 Degrees) (20 Active Points); OAF Immobility (-2), Affected As Sight Group As Well As Radio Group (-½). Total cost: 7 points.

Other Models:

- *Type II:* Add Telescopic (+4 versus Range Modifier) (24 Active Points; total cost 8 points).
- *Type III:* Add Telescopic (+6 versus Range Modifier) (26 Active Points; total cost 9 points).
- *Type IV:* Add Telescopic (+8 versus Range Modifier) (28 Active Points; total cost 9 points).

Radar Hardening: Radio Group Flash Defense (10 points); OAF Immobility (-2) (total cost: 6 points) plus Power Defense (10 points); OAF Immobility (-2) (total cost: 6 points). Total cost: 12 points.

Sonar

Sonar (sound navigation and ranging) is for undersea Bases what radar is for most other Bases. It comes in an array of types, frequencies, and functions, including both active sonar (which emits pulses of sound and then interprets the "echoes" as they bounce off objects and return to the receiver) and passive sonar (enhanced listening devices) systems. Many bases have both active and passive sonar systems. Because it uses a viewing screen as well as audio reception, sonar can be affected as both the Sight and Hearing Groups.

Active Sonar, Type I: Active Sonar (Hearing Group), Increased Arc Of Perception (360 Degrees) (20 Active Points); OAF Immobility (-2), Affected As Sight Group As Well As Hearing Group (-½). Total cost: 6 points.

Other Models:

- *Type II:* Add Telescopic (+4 versus Range Modifier) (24 Active Points; total cost 8 points).
- *Type III:* Add Telescopic (+6 versus Range Modifier) (26 Active Points; total cost 9 points).
- *Type IV:* Add Telescopic (+8 versus Range Modifier) (28 Active Points; total cost 9 points).

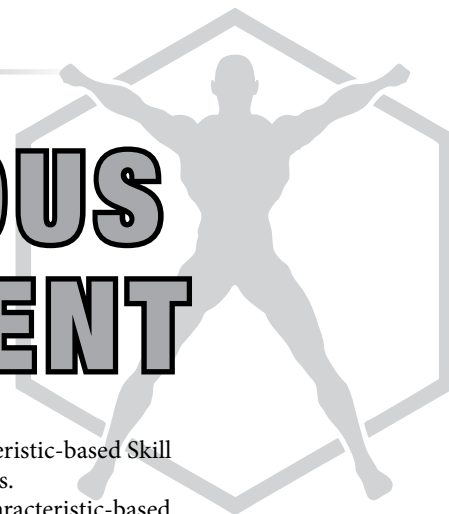
Passive Sonar, Type I: +2 PER with Hearing Group (4 Active Points); OAF Immobility (-2) (total cost: 1 point) plus Ultrasonic Perception (Hearing Group) (3 Active Points); OAF Immobility (-2) (total cost: 1 point). Total cost: 2 points.

Passive Sonar, Type II: +3 PER with Hearing Group (6 Active Points); OAF Immobility (-2) (total cost: 2 points) plus Ultrasonic Perception (Hearing Group) (3 Active Points); OAF Immobility (-2) (total cost: 1 point) plus Telescopic (+2 versus Range Modifier for Hearing Group) (3 Active Points); OAF Immobility (-2) (total cost: 1 point). Total cost: 4 points.

Passive Sonar, Type III: +4 PER with Hearing Group (8 Active Points); OAF Immobility (-2) (total cost: 3 points) plus Ultrasonic Perception (Hearing Group) (3 Active Points); OAF Immobility (-2) (total cost: 1 point) plus Telescopic (+4 versus Range Modifier for Hearing Group) (6 Active Points); OAF Immobility (-2) (total cost: 2 points). Total cost: 6 points.

Passive Sonar, Type IV: +5 PER with Hearing Group (10 Active Points); OAF Immobility (-2) (total cost: 3 points) plus Ultrasonic Perception (Hearing Group) (3 Active Points); OAF Immobility (-2) (total cost: 1 point) plus Telescopic (+6 versus Range Modifier for Hearing Group) (9 Active Points); OAF Immobility (-2) (total cost: 3 points). Total cost: 7 points.

MISCELLANEOUS BASE EQUIPMENT



Last but not least, here are a few Base gadgets that don't fit into any of the categories above.

Arms (Waldoes)

Some Bases come equipped with mechanical arms — or *waldoes* — which they use to gather samples from environments the Base's occupants can't enter, handle dangerous items, and so forth. Waldoes are built as Extra Limbs with the *Costs Endurance* Limitation. They may take the *Limited Manipulation* Limitation if appropriate, but sophisticated waldoes are highly dextrous when operated by a trained user. (The GM may require a PS: Operate Waldoes roll for any fine work.)

Waldoes: Extra Limbs (2 — mechanical arms) (5 Active Points); Costs Endurance (-½). Total cost: 3 points.

Elevator

Getting around inside a skyscraper or other large Base is difficult and tiring (to put it mildly) unless the Base has elevators. These are bought as Vehicles that move along defined routes within the Base itself. See page 36 for more information on elevators. On high-tech Bases, the elevator may even be able to move sideways through the Base as well as up and down. In either case, the elevator can only travel through the shafts built for it.

Laboratories

Laboratories are discussed on pages 20-25. Listed below are the suggested guidelines for laboratory costs based on lab quality. Typically a lab requires a minimum of 2 cubic meters of space, but GMs may want designers to make labs with better rolls larger — for example, 2 cubic meters for a base roll, +1 cubic meter per +1 to the roll (or other expansion, such as buying additional subcategories). In many cases, it's also appropriate to increase the size of the lab by +1 cubic meter per person who can work in there at the same time.

- *Standard Laboratory:* Characteristic-based Skill at 8-. Total cost: 1 point.
- *Basic Laboratory:* Characteristic-based Skill at 11-. Total cost: 7 points.

- *High Laboratory:* Characteristic-based Skill at 14-. Total cost: 13 points.
- *Advanced Laboratory:* Characteristic-based Skill at 17-. Total cost: 19 points.
- *Extremely Advanced Laboratory:* Characteristic-based Skill at 20-. Total cost: 25 points.
- *Ultra-Advanced Laboratory:* Characteristic-based Skill at 23-. Total cost: 31 points.

ELEVATOR

Val	Char	Cost	Notes
2	Size	10	3.2 x 1.6 x 1.6 m; mass 800 kg; -3 KB; OCV+ 2
30	STR	10	Lift 1,600 kg; 6d6 HTH [0]
3	DEX	-14	
1	OCV	-10	
1	DCV	-10	
2	SPD	0	Phases: 6, 12
4	PD	3	
4	ED	3	
13	BODY	0	Total Characteristics Cost: -8

Movement: Ground: 0m
Flight: 6m

Cost Powers **END**
Propulsion Systems
4 **Going Up!:** Flight 6m 0

Restricted Path (-1), Limited Maneuverability (-1)

-12 **Only Flies:** Ground Movement -12m (0m total)

-2 **Only Flies:** Swimming -4m (0m total)

Total Abilities & Equipment Cost: -10

Total Vehicle Cost: -18

Value Complications

0 None
Total Complication Points: 0
Total Cost: -18/5 = 1

OPTIONS

Cost Power
+3 **Express Elevator:** Add +4m to Flight
+2 **Science Fiction Elevator:** Add Sideways Maneuverability (+½) to Flight



Mystic Equipment

Bases occupied by characters with magical powers — such as wizards or storm giants — often have magical “equipment” or resources. The possibilities are nearly as endless as those of magic itself. Some examples include:

Blessing Of Luck: A special blessing has been laid upon the Base so that all who dwell or work within its walls are unusually lucky. However, no person can have more than one lucky thing happen to him per day as a result of the blessing.

Blessing Of Luck: Luck 3d6 (15 Active Points); Can Only Affect Each Person In Base Once Per Day Maximum (-0). Total cost: 15 points.

Guardian Spell I: The sorcerer who owns the Base has placed a spell of protection over it that makes it seem gloomy and dangerous to intruders (he and anyone he permits inside the Base are not affected). It's hard to see anything, the footing is always treacherous (despite level floors), and all doors are magically locked. As a bonus, this means that intruders using Detect Magic (or similar abilities) perceive the entire Base as magical, which may deceive them into thinking the wizard's even more powerful than he is, or cause them to overlook a weaker, less “vibrant” magic.

Guardian Spell I: Change Environment, -3 to Sight Group PER Rolls, -2 to DEX Rolls (must make a roll each Phase or fall down), and -3 to Lockpicking Rolls, Area Of Effect (large enough to cover entire Base; +1), Long-Lasting, Reduced Endurance (0 END; +½), Persistent (+¼), Personal Immunity (see text; +¼). Total cost: 86 points.

Guardian Spell II: A wizard prepares this spell to protect valuable areas of his Base. Any intruder who enters the protected area gets a nasty zap. You can use this as a model for similar spells that put the victim to sleep, capture him in gigantic spider webs, or the like.

Guardian Spell II: RKA 4d6, Trigger (when any unauthorized person enters designated room; +¼) (75 Active Points); OAF Expendable Fragile (miniature brick and monocle tied with golden thread, Difficult to obtain; -1½), Concentration (0 DCV throughout casting; -1), Extra Time (5 Minutes to cast; -2), Incantations (throughout casting; -½), Gestures (throughout casting; -½), Requires A Magic Roll (-½). Total cost: 11 points.

Libraries And Laboratories: Wizards and their ilk are notorious for having workrooms, studies, laboratories, and other such rooms where they study recondite lore and engage in sorcerous experimentation. Possible Skills for mystic Bases include:

- KS: Arcane And Occult Lore
- KS: specialized mystic subject (such as Necromancy, Famous Wizards, or Demons)
- PS: Wizard
- SS: Alchemy
- SS: Astrology
- SS: Monster Hybridization

Place Of Power: A small part of the Base — typically the innermost room (the “heart” of the Base, so to speak) or some other room of great importance (such as a throne room or summoning chamber) — is the wizard's “place of power.” The spells he casts there are more powerful, and anyone who dares to confront him there is in for a tough fight.

Place Of Power: Aid Magic 3d6, Expanded Effect (all Magic spells and powers simultaneously; +4), Reduced Endurance (0 END; +½) (99 Active Points); Only Aid Self (*i.e.*, Base's owner; -1), Only Within Defined Area (-2). Total cost: 25 points.

Shifting Walls: A Base that's enchanted to be “alive,” that *is* in fact alive, or that's possessed by a malevolent spirit may have the ability to re-arrange its interior walls and spaces, the better to confound intruders.

Shifting Walls: Shape Shift (Sight, Hearing, and Touch Groups), Limited Group (any desired re-arrangement of internal spaces and features), Reduced Endurance (0 END; +½), Persistent (+¼). Total cost: 40 points.

Summoning Chamber And Circle: Mages who wish to summon demons, elementals, and other spirits on a frequent basis usually have a special summoning chamber built, with a permanent summoning circle (or other pattern) graven or inlaid into the floor. This diminishes (but does not eliminate) the chance of something breaking the circle and setting the conjured being free.

Summoning Circle: Change Environment (create area that conjured beings cannot pass or attack through), -1 to EGO Rolls, Area Of Effect (1m Radius; +¼), Reduced Endurance (0 END; +½), Persistent (+¼). Total cost: 20 points.

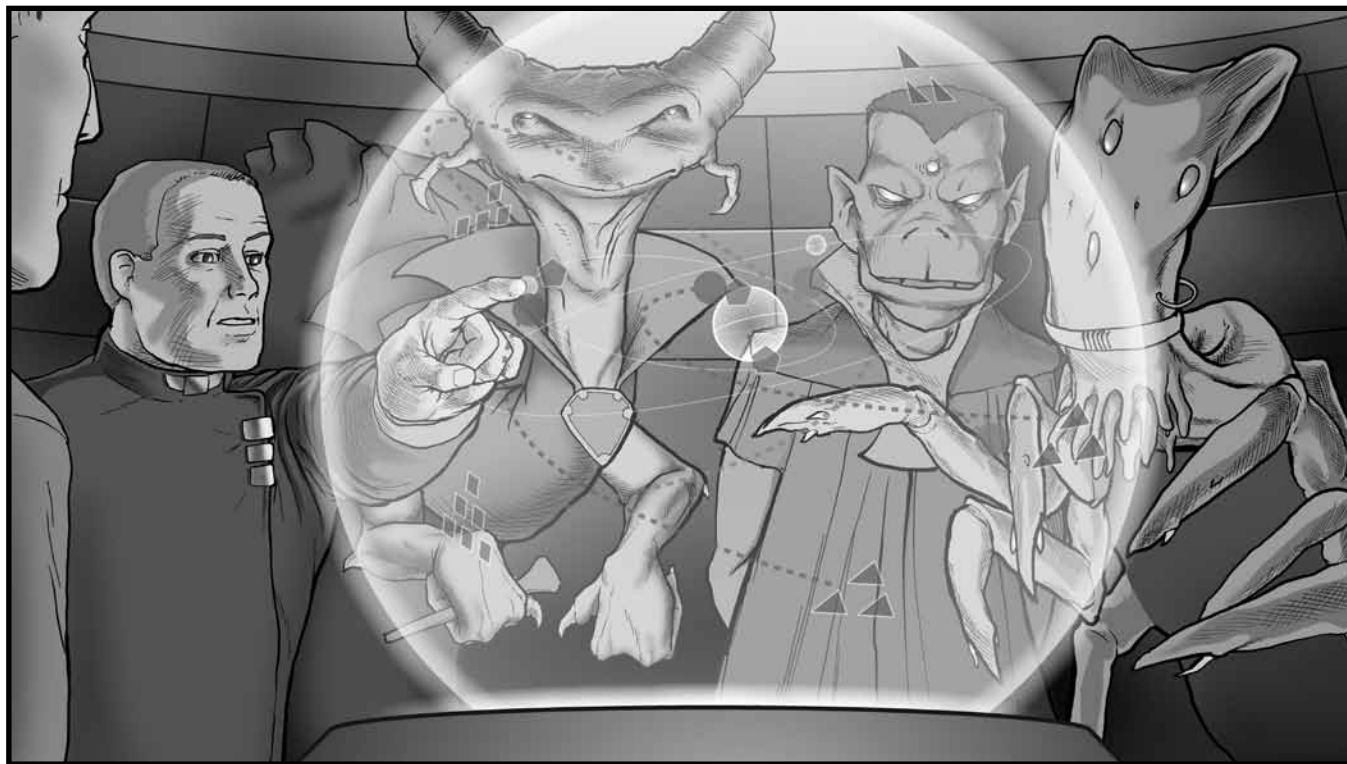
There's No Door Here!: The wizard who owns the Base has cast a spell that makes a door look and feel like an ordinary wall.

Door Into Wall Illusion: Sight and Touch Group Images, -8 to PER Rolls, Reduced Endurance (0 END; +½), Persistent (lasts until dispelled or someone perceives through it; +¼) (65 Active Points); OAF Expendable Fragile (a miniature mirror in the shape of a door, Difficult to obtain; -1½), Concentration (0 DCV throughout casting; -1), Extra Time (5 Minutes to cast; -2), Incantations (throughout casting; -½), Gestures (throughout casting; -½), Requires A Magic Roll (-½). Total cost: 9 points.

See *Fantasy Blackmarsh*, page 71, for some other ideas about magic and castles.

Superhero Equipment

Superheroes often have access to incredibly advanced technology, magic, alien gadgetry, and all sorts of other stuff for their Bases. For the most part you can simulate those things with devices and systems found earlier in this chapter, but here are few other ideas for super-Base equipment.



Holoprojector Table: The team owns a “table” that can project 3-D holograms of any part of the city (or even the world) so that they can make strategic or tactical plans. It can’t display what’s going on in real time, though it does have a satellite link so that it can periodically update its database.

Cost Power

- 7 **Conference Room Holoprojector:** Sight Group Images, +4 to PER Rolls, Area Of Effect (1m Radius; +¼) (27 Active Points); OAF Immobile (-2), Set Effect (holographic images of places on Earth; -1)
- 12 **Holoprojector’s Database:** AK: Earth 50-; OAF Immobile (-2), Costs Endurance (-½)

Worldwide Danger Monitoring System: Thanks to an elaborate suite of sensor systems, satellite links, communications/broadcast monitoring devices, and possibly even magical assistance, the superteam has the ability to detect nearly any sort of threat to Earth the moment it appears. Included as part of this system is an elaborate control console and a viewscreen so big it had to be brought over from Japan on the barge they normally use to tow Mega-Terak back to Monster Island after one of his periodic rampages through Tokyo.

Worldwide Danger Monitoring System: Danger Sense 14- (any type of danger, any area, sense) (47 Active Points); OAF Immobile (-2), Requires A PS: Operate WDMS (or Systems Operation) Roll (-¼). Total cost: 14 points.

Secret And Concealed Doors

Doors that are hidden in some way — made to look like an ordinary wall or a piece of art, for example — are a staple of many adventure genres. To create one in *HERO System* terms, buy Change Environment with Partial Coverage to make the door harder to perceive:

Standard Secret Door: Change Environment (conceal door), -3 to Sight Group PER Rolls, Reduced Endurance (0 END; +½), Persistent (+¼) (16 Active Points); Partial Coverage (-2). Total cost: 5 points.

Other Models:

- *Very Secret:* Increase to -4 (21 Active Points; total cost 7 points).
- *Highly Secret:* Increase to -5 (26 Active Points; total cost 9 points).
- *Extremely Secret:* Increase to -6 (31 Active Points; total cost 10 points).

One drawback to the “standard” secret door is that it’s easy to use Touch Group Senses to find it (by perceiving the differences in materials the door and wall are made with, tapping on it to feel that it vibrates differently, and so on). A *really* secret door is built to fool Touch as well as Sight:

Advanced Secret Door: Change Environment (conceal door), -3 to Sight and Touch Group PER Rolls, Reduced Endurance (0 END; +½), Persistent (+¼) (31 Active Points); Partial Coverage (-2). Total cost: 10 points.

Other Models:

- *Very Secret:* Increase to -4 (42 Active Points; total cost 14 points).
- *Highly Secret:* Increase to -5 (52 Active Points; total cost 17 points).
- *Extremely Secret:* Increase to -6 (63 Active Points; total cost 21 points).

Training Facilities

Many Bases have training facilities where characters can practice Skills and other abilities. These range from a combat practice ground and jousting field at a castle, to the “danger room” of a superhero team’s secret headquarters, to the hologymnasium on a space station.

Training facilities may offer some or all of the following benefits:

1. They allow characters to buy off Vulnerabilities and Susceptibilities, and possibly other Complications as well. A character can expose himself to the attacks and substances he takes (extra) damage from and build up tolerance and resistance. Of course, buying off a Complication requires the expenditure of Experience Points and the GM’s permission.

Similarly, a character could train to overcome (*i.e.*, buy off) Limitations on his Powers. For example, a character whose RKA *Only Works Against Metal* (-1) could work at expanding his range of effect. He might go from only affecting metals, to affecting any inorganic substance (-½) to any nonliving substance (-¼), to anything or anyone.

2. Learning new Skills and abilities. A character can use training facilities to learn things from his comrades or on his own. For example, if one of the characters knows WF: Staff, he can use the Training Facility to teach another character how to use that weapon.

Practicing in a Training Facility is a particularly good justification for buying Combat Skill Levels (representing intense practice with a particular attack or group of attacks) or the *Teamwork* Skill (representing a group of characters working together to hone their battlefield tactics and ability to Coordinate). The GM might even allow a character to buy extra defenses or CSLs to represent training in resisting or counteracting particular types of attacks.

3. Learning about other characters’ abilities, strengths, and weaknesses. By observing other characters as they train, a character may learn valuable information about them. What he learns, and how he learns it, depends upon his ability to perceive things, the situation, how well the other character hides things, and the GM’s discretion.

4. Learning about different environments. By experiencing other environments — such as zero gravity, vacuum, underwater, high altitude, extreme heat, extreme cold, different atmospheres, or different gravities — a character can learn how to overcome the problems they pose. This is a good justification for buying the *Environmental Movement* Talent.

In *HERO System* terms, there are several ways to create a training facility, based on exactly what the characters who want to use it plan to do in it. In some cases it doesn’t require anything more than setting aside the space, or perhaps buying a Skill to define the training facility as a “laboratory” for Martial Arts, Weapon Familiarity, or other Skills. For other Bases simply reinforcing the walls, floors, and ceiling is enough.

However, for superheroes’ “danger rooms” and like facilities, you need to go further. They feature equipment and obstacles suitable for persons of superhuman capabilities: weightlifting sets measured in the tens of tons, rather than the hundreds of pounds; a “jogging” track able to withstand the high velocities generated speedsters and the weight of metallic characters; and workout rooms able to simulate superhuman combat.

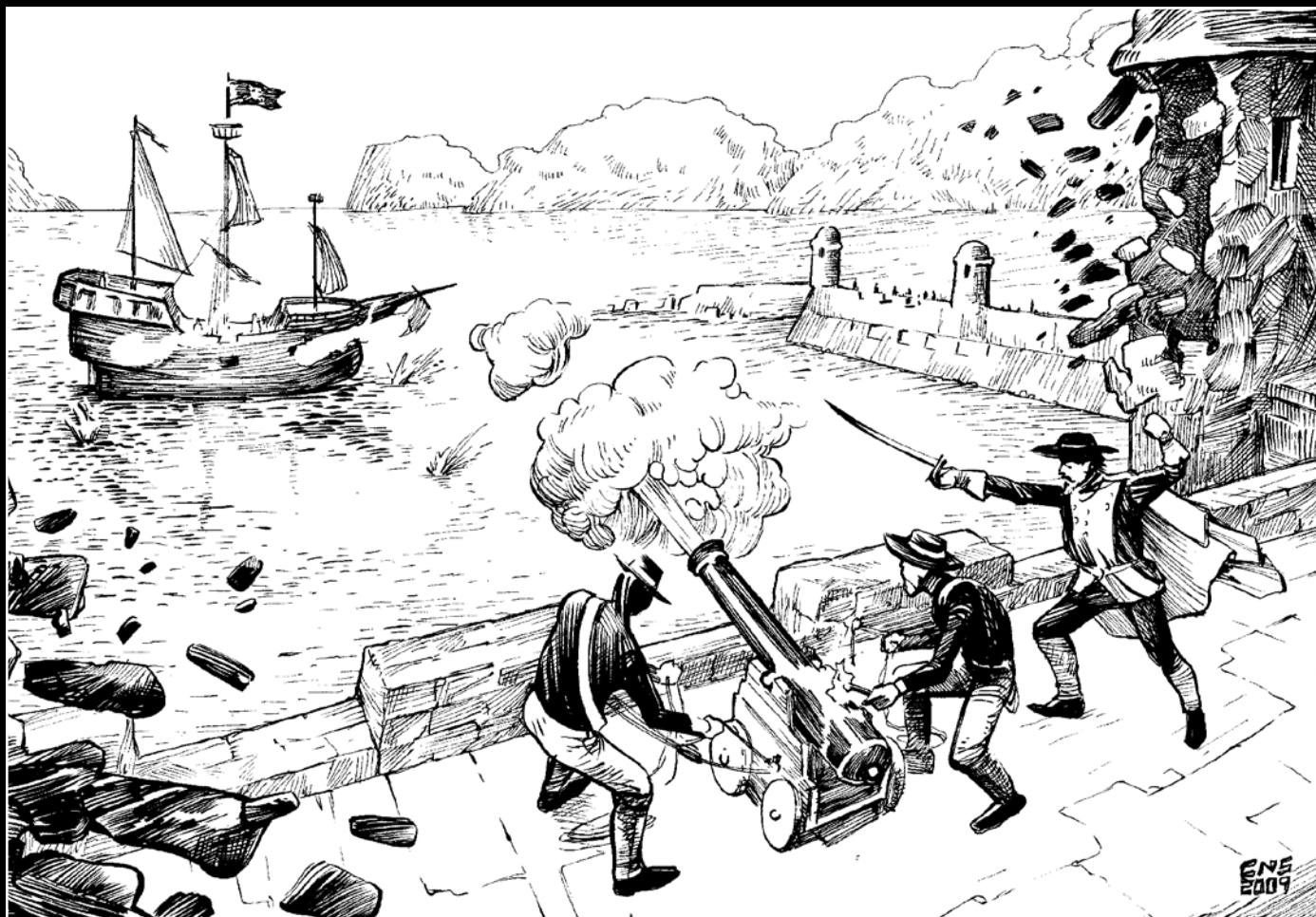
That last point is particularly important. Relatively ordinary things like multi-ton weightlifting sets you can just assume are part of the training facility without defining them in rules terms, but a combat simulator is something the characters building a Base should pay for. There are several ways to do this. One is to buy the appropriate abilities (such as heavily-reinforced walls) with the *Partial Coverage/Only Within Defined Area* Limitation. The Advantages *Variable Advantage* and *Variable Special Effects* can be applied to Attack Powers, allowing them to simulate a wide variety of blasters and gadgets. And of course, the Base will probably need plenty of robots, hard-light holograms, mystically-created golems, or the like (*i.e.*, Followers) designed and programmed to serve as opponents for the PCs.

A more versatile way of building a danger room is to define it as a Variable Power Pool. That really expands the scope of training options available to the heroes. On the other hand, the Pool needs to be pretty big to account for all the devices in use, so this method gets expensive. For example:

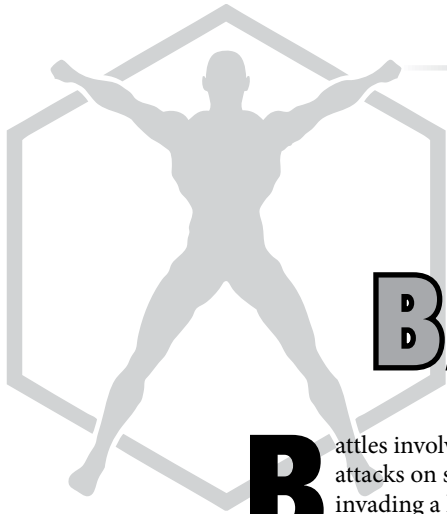
Danger Room: Variable Power Pool, 150 base + 150 control cost, Reduced Endurance (0 END; +½); OIF (all powers bought with the VPP must have a Focus Limitation of -½ or greater; -½), Only Within Defined Area (value varies based on relative size, for this example assume -2). Total cost: 182 points.

Appropriate Powers for a Danger Room VPP include any Attack Power, Change Environment, Barrier, and Summon (the latter to create robots and the like for the characters to fight).

As an added bonus, danger rooms often make for interesting plot points. For example, villains invading the base may get trapped in them by the heroes and pummeled by the machinery — or a sneaky villain may reprogram the danger room to *really* pose a danger to the heroes!



CHAPTER SIX
SIEGE PERILOUS:
BASES AND COMBAT



ENTERING BASE COMBAT

Battles involving Bases — sieges, alien attacks on starbases, supervillains invading a hero team's headquarters, and more — are common in adventure fiction. This chapter provides some additional and expanded *HERO System* rules for combats and adventures featuring Base. However, the nature of Base combat depends largely on the type of Base, the environment, the types of technology available, and numerous other factors that no single chapter or book can fully quantify. Therefore, the rules presented here are general ones, intended for use in a wide variety of *HERO System* campaigns. Gamemasters can, and should, alter and adapt them for use in their own games, and if necessary create new rules appropriate for their campaign settings and preferred style of play.

In general, this chapter tries to treat Bases the same as characters, robots, or any other being, entity, or thing involved in a combat. Instead of coming up with an entirely new set of rules governing Base combat, it shows how the standard *HERO System* combat rules apply to and interact with Bases. In some cases, this involves creating additional rules, since Bases function differently from a standard character. But even then, those rules are designed to integrate with the regular combat rules as smoothly as possible. As always, the GM should evaluate the new or optional rules, decide whether they're suitable for his campaign, and implement them as appropriate.

Unless noted otherwise, it's generally safe to assume that any rule in 6E2 that isn't mentioned here, but which should, logically or for game balance purposes, apply to Bases, does apply. If a rule doesn't seem appropriate for Bases, don't use it, or use it differently, even if it's not discussed in this chapter — don't follow the rules rigidly when your common sense and dramatic sense tell you otherwise.

Characters use Skills to operate Base equipment: WF, Systems Operation, and the like. Bases themselves do not have DEX, SPD, Phases, or Actions of any kind (though they have "SPD 3" for purposes of determining when they spend END for systems like life support or artificial gravity).

BASE PERCEPTION

Bases themselves do not make PER Rolls, even if they have built-in sensory devices, because they have no INT on which to base such a roll. It's the Base's occupants and operator, be it a Computer or a character, who makes PER Rolls "for the Base." Most operators use Systems Operation to make the PER Roll with (representing their ability to use the sensors and interpret their data); a Computer operator would make a PER Roll with its own INT. However, Sense-Affecting Powers used against the Base can "blind" it by scrambling its sensors or the like; additionally, attackers can use such Powers against the Base's operator and/or occupants, making it difficult or impossible for them to take advantage of the Base's sensors even if they're functional. See page 180 for more information.

BASE ACTIONS

Gamemasters running Base combat have two options for determining who can act, and when: Simple Base Actions; and Complex Base Actions.

SIMPLE BASE ACTIONS

The *Simple Base Actions* option treats each Base as a single entity, regardless of how many occupants it has, weapons it mounts, or computers it uses. In this case, the GM assigns the Base a "DEX" and "SPD" based on the average DEX and SPD of the occupants manning its battlements, operating its weapons systems, or what have you. The GM can adjust the DEX and SPD up or down to reflect the fact that one side has better technology, superior numbers, or some other tactical advantage.

Once you determine a Base's "DEX" and "SPD" this way, the Base gets to take Actions on its "Phases" according to the standard rules. It performs actions as if it were a single entity: it can make one attack using one of its weapons, for example, but that's it... and that's assuming it only performs a Half Phase Action beforehand.

The benefit to the Simple Base Action rules is that they make the combat easy to understand and run. The drawback is that they're not in any way "realistic." Even if it has the power to do so, the Base can't fire multiple weapons or perform other common activities, and that saps a lot of the flavor from Base battles.

COMPLEX BASE ACTIONS

For greater “realism,” and a greater degree of participation by the PCs, GMs can use more complex rules to resolve Base actions. In the *Complex Base Action* system, the Base itself isn’t considered a “character.” However, each PC, and any other prominent character in the Base, gets to act according to his own SPD and DEX (or, to simplify things, the GM may rule that all characters on a Base act on the same SPD, based on the occupants’ average SPD). That allows characters to do things like fire a weapon, activate point defenses, perform first aid on injured occupants, fight invaders, and so forth. Characters use their own DEXs, Skills (including relevant Combat Skill Levels), and other attributes to resolve the outcome of actions they attempt. If a character fires a Base’s weapons, he uses his own OCV; if he gets involved in personal combat, he uses his own CVs. If a character uses the Base’s weapons or equipment, the Base pays the END for them in the Segment in which they’re used.

The GM determines how many occupants on a Base count as “prominent” for purposes of this rule. For example, assuming a Base had sufficient power, theoretically it could fire every single weapon it has, since a separate occupant can man each weapon and fire it individually. But that could take a lot of time, so the GM may not want to consider *every* occupant capable of firing a weapon as “prominent.” He may prefer to designate only the PCs and major occupants as prominent, or only enough gunners to man half the weapons, or the like. Alternately, the GM can simply roll once and use that result for all NPCs, or let the roll determine what percentage of them hit.

Some characters’ actions can affect the actions of all other characters on the Base. For example, a character who uses sensors to obtain a +2 Attack Roll bonus for the Base’s weapons doesn’t just obtain that bonus for himself — it applies to all other attacks the Base makes that Phase (unless for some reason the sensor was only usable with one weapon). The GM determines who a character’s actions affect.

Example: *Donverness Keep is a large castle with over 300 occupants, including five PCs. The GM decides that, in battle, each PC, the Keep’s lord, each of the lord’s six captains who aren’t PCs, and enough average soldiers to man one-third of the Keep’s weapons are “prominent” characters.*

The Keep is attacked by the undead armies of the Prince of Skulls. The first PC in the initiative order is Korvang the Scar, a rough-and-tumble half-orc warrior who’s leading one of the catapult crews. He acts on his own DEX, using his own CV to determine whether he hits his target (an enemy siege engine). (The rules governing the Requires Multiple Users Limitation also apply here, since Korvang can’t load and fire the catapult by himself).

The next PC is Mharloth, the Keep’s sorcerer. He’s using his Crystal Ball to spy on the enemy’s activities. He succeeds with his PER Roll and discovers that there’s a sapping attempt underway. He relays the information he’s uncovered to the other PCs so someone can stop the attack.

The next PC, Borag the Surly, is a dwarf who’s leading crews to repair damage, put out fires, and the like. Since he doesn’t have anything to do yet, he declares that he’s organizing a counter-sapping crew and getting them started digging. Based on the information received from Mharloth, he makes a PS: Siege Engineering roll to determine the best approach.

The last PC is Father Willem, who’s waiting in the chapel for injured combatants, whom he’ll heal with his spells. He Holds his Action until he needs to act.

The GM now resolves the actions of any NPC occupants firing weapons or performing other tasks. To keep the pace of combat moving quickly, the GM uses the optional rule — he rolls once for all NPCs making attacks, using that one roll to determine how many of them hit. He also just assumes the attacks do average damage, rather than rolling dice for each attack that hit.

Holding And Aborting

If you’re using the Simple Base Actions rule, a Base may Hold its Action using the standard rules. If you’re using the Complex Base Actions method, each person able to act decides whether to Hold his own Action. If an occupant of a Base chooses to Hold his Action, but that doesn’t prevent the other occupants from taking their own Actions on their own Phases.

Bases cannot Abort their Actions, since they don’t have any means to Block, Dodge, or the like. However, if you’re using the Complex Base Actions method, an occupant of a Base can choose to Abort his Action, but that doesn’t prevent the other occupants from taking their own Actions on their own Phases. For example, a security guard fighting intruders could Abort to Dodge an attacker’s gunfire, but another guard could still act normally on its own Phases, and a gunner elsewhere on the Base could fire a Base weapon on his own Phases.

CHARACTERS IN BASE COMBAT

In many Base combats, what matters most is not the abilities and equipment of the Bases involved, but the skills and daring of the people in those Bases — the operators, occupants, and residents, in other words. For simplicity's sake, *The Ultimate Base* refers to all these people collectively as “occupants” (or sometimes “personnel” or “crew”).

Character Actions In Base Combat

If the GM uses the Simple Base Actions option, generally only one character's abilities, Skills, and other attributes matter during a Phase, since a Base can only take one Action no matter how many people are aboard. The occupant in a position to perform the chosen Action, or the PC with the best Skills for the job (if appropriate), makes whatever rolls are needed to resolve an attack or other Action.

If the GM uses the Complex Base Actions option, things change significantly. Now every PC and every “prominent” NPC can act on his own Phases. One might operate a Base's weapons, one monitors its sensors, and a third fights invaders in HTH Combat. In this situation, the GM has to use his judgment regarding the effects of one character's actions on the Base as a whole, what DEX and SPD a character should use for his Actions, and so forth.

Generally speaking, an action performed by one character can benefit all the other characters in a Phase who act later in the Segment than he does. For example, if a character uses the sensors to obtain a +1 OCV bonus against an enemy base, typically that bonus applies to all attacks the Base makes that Segment that occur after the character obtains the bonus. In some cases, the bonus lasts until the character's next action, thus allowing it to affect Base actions in later Segments. The GM makes the final decision as to what effect a character's actions have.

Some possible character actions in Base combat include:

FIGHTING

First and foremost, characters can fight. They can fire a Base's weapons, use their own weapons (if appropriate), operate sensors or communications systems, or take other actions designed to improve the Base's ability to win the battle. See the rest of this chapter for information, possible actions, and their effects.

MEDICAL DUTY

Characters with medical training — such as the Skills *Paramedics* or *SS: Medicine* — may find themselves patching up injured occupants, performing life-saving combat surgery, and so forth.

The GM can deal with this on both a personal and an abstract level. On the personal level, if a PC or prominent NPC suffers an injury, the character can attempt a Skill Roll in the normal fashion to try to make him better (or at least keep him comfortable until he can receive full medical attention). Standard rules for Paramedics apply.

On an abstract level, the GM can compare the efforts of the medical personnel to the percentage of injured occupants. For each Phase of medical attention, have the character (PC or NPC) with the highest Paramedics or *SS: Medicine* roll make a roll. Crew casualty penalties (see page 193) apply to this roll; after all, doctors get injured and overworked, too. For every two points by which the character makes the roll, the medical crew reduces the percentage of injured crew by 1% (thus allowing those newly-healed occupants to return to duty). (For more realistic games, the GM may want to allow healing only for every *Turn* of effort by the medical crew, and/or to reduce the percentage of occupants healed.)

COMBAT REPAIR DUTY

Characters can also try to make mid-combat repairs to a damaged Base system. See page 200 for rules.

Crew Skills

Sometimes it's easier for the GM to determine the overall effect of a Base's occupants' actions on a particular task (such as extensive repair work) than to make a separate Skill Roll for each major NPC (not to mention Complementary Skill Rolls and the like). In that case, the GM can simply assign the crew as a whole a “Crew Skill” and apply that to the “meta-task” as a whole.

To determine a Base's Crew Skill for a particular subject, the GM must first decide which active occupant has the highest Skill Roll in the appropriate Skill. (Alternately, he can use a PC's Skill, if the PC leads the effort — as he probably does.) Then he increases that Skill based on how many other occupants are working on the meta-task. He might add +1 to the roll per occupant, per three occupants, per five occupants, or whatever else seems appropriate. Then he makes the Crew Skill roll for the crew as a whole to find out how well it performed the task.

Because meta-tasks tend to be large-scale efforts, Crew Skills should take a long time to use — typically four steps down the Time Chart for every unit of time involved. Thus, a task normally requiring 1 Turn takes 1 Hour. The GM can increase or decrease the time required if appropriate; complex or dangerous systems may take much longer to work on.

Gamemasters can also adapt these rules for combat, deriving a “Crew OCV” from the occupants' average CVs. In this case the task typically just takes a Phase, though the GM may want to establish a “Crew SPD” representing how often the crew, as a whole, can attack.

Crew Casualties

Player Characters and NPCs aboard Base in combat are in danger. There are many ways to get hurt, killed, or left behind during a Base battle.

Whenever a Base gets an Occupants/Supplies result on its Base Hit Location table (and sometimes other results), or it suffers a crew casualties result on an optional effects roll, or it loses more than half of the BODY needed to destroy it (see page 13), the characters in it are endangered. Each PC in an affected area of the Base, and any other prominent NPC the GM wants to roll for individually, must make a DEX Roll to avoid harm. (Characters with Luck or Unluck should roll that as well.) If the roll succeeds, the character remains unharmed — a panel shorts out nearby, a pipe bursts across the room, part of the ceiling collapses, or the like, but the PC takes no damage.

If his roll fails, a character must roll on the accompanying Character Damage Table to determine what happens to him. If a result does not apply, reroll (for example, characters in small Bases generally can't get "trapped beneath debris"). The results are not intended to be fatal to characters in good health, but rather to add color, drama, and a personal touch to the battle. Gamemasters should be merciful; it's not fun for characters to suffer fatal (or frequent) injuries in a situation they don't have significant control over. The GM should also adjust the results based on the situation and genre; for example, characters participating in Fantasy battles in castles are less likely to "caught on the fringes of a blast wave" than characters in Modern or Science Fiction battles.

EFFECT OF CREW CASUALTIES

The optional effects rules provide a way for the GM to determine what percentage of the crew becomes casualties during a battle. A "casualty" is a occupant killed or so badly injured that he can no longer perform his combat duties.

The more occupants that become casualties, the harder it is to keep a Base functioning efficiently. In game terms, the GM can represent this abstractly by imposing penalties to all Skill Rolls the Base or other occupants make — without a full crew to man all the duty stations, keep things running efficiently, relay messages, interpret data, and so forth, everyone else's ability to do his job becomes impaired. The Crew Casualties Table describes this effect.

This system works best when applied to Bases with large crews, like aircraft carriers and some starbases. The GM may wish to ignore it for Bases meant to be operated by just one, two, or a handful of people.

CHARACTER DAMAGE TABLE

Roll (2d6)	Result
2	Reroll and double the effect
3	Shards of debris strike the character, causing RKA 1d6 damage (physical)
4	An area becomes hazardous, exposing a character to something he's Susceptible to, is sickening/poisonous to him, or the like
5	The character is trapped beneath debris (Entangle 2d6, 4 PD/4 ED)
6	The character is knocked into a wall and suffers 4d6 STUN damage (defenses apply)
7	The character is caught on the fringes of a blast wave; he suffers a Sight and Hearing Group Flash 4d6
8	The character is caught in an explosion; he suffers an RKA 1½d6
9	The character takes a hard knock to the head; he's Knocked Out for 1d6 Segments, and suffers a -2 to all INT Rolls, PER Rolls, and Intellect Skill rolls for the next 1d6 Hours
10	The character is exposed to dangerous, sickening fumes (or the like); he suffers a Drain CON 4d6 (points return at the rate of 5 per Minute)
11	An arc of electricity zaps the character, or he's exposed to fire, causing RKA 1d6 damage (energy)
12	Roll twice

CREW CASUALTIES TABLE

Percentage Of Crew Casualties	Modifiers To All Skill Rolls
0-10%	-0
11-20%	-1
21-40%	-2
41-80%	-4
81% or more	-8



BASE FIGHTING

Bases don't have OCV, DCV, or other combat Characteristics of their own. Instead, a Base occupant who's firing a Base weapon or operating a Base system uses his own OCV, Skill Roll, or the like.

ATTACKING AND DEFENDING

Here are some rules for Base attacks and defenses.

Sensor Locks

In some forms of Base combat — primarily three-dimensional combat at long range involving high-tech Bases and weapons — the GM may require a Base to obtain a *sensor lock* on its intended target. In other words, the attacking Base (or, more accurately, its operator) has to properly “perceive” its target with its sensors, and feed that information to the targeting systems. Sensor locks are always required for space combat; the GM decides whether they're required for air or underwater combat.

To obtain a sensor lock, the character or Computer operating the sensors must make a PER Roll with a Targeting Sense. As noted on page 190, most operators make PER rolls using Systems Operation, but Computers do so using their own INT. This is an Attack Action. The Range Modifier applies; so do penalties for intervening physical obstacles, energy fields, and the like.

If the roll fails, the Base cannot obtain a sensor lock. If it wishes to attack, it must do so at the OCV penalties for being unable to perceive its opponent (6E2 7). DCV penalties do *not* apply, unless the Base's crew is also “blind.” The Base may make further attempts to obtain a sensor lock in its later Phases.

If the Complex Base Actions rules are in use, OCV penalties for lack of sensor lock still apply even if individual characters can perceive the target themselves. However, if a character uses a personal weapon (rather than a Base weapon) and can perceive a target with his own Targeting Senses, OCV penalties for lack of sensor lock do not apply.

If the roll succeeds, the Base has obtained a sensor lock, and can in later Phases attack with any of its weapons at full OCV, possibly using a Combat Maneuver in the process (see below). Once the Base has a lock, the lock remains in effect until the target does something to break it; the Base does not have to take any Actions to maintain the lock. Possible ways to break a sensor lock include:

- successfully executing an *Evade Vehicle* Maneuver (if the target's a Vehicle)
- using electronic warfare to block, jam, or trick the enemy Base's sensors
- moving so that a sufficiently large physical object passes between the Base and the enemy Base (Vehicles are *not* large enough for this unless they are at least twice the Size of the Base attempting to break the lock.)

A Base may attempt to re-establish a broken sensor lock using the same method for establishing it. If the lock was broken within the past Turn, the Base has a +2 bonus to its PER Roll to re-establish; if within the past two Turns, a +1 bonus; and no bonus thereafter.

Powers In Base Combat

In most cases, Powers (particularly Attack Powers) affect Bases the same way they affect characters (though of course Bases do not take STUN damage). However, several *HERO System* powers have unusual effects when used in Base combat. As always, GMs should consider the specifics of the circumstances in the game, the special effects involved, common sense, and dramatic sense when adjudicating these (and other) effects.

MENTAL POWERS

Since Bases have neither INT nor EGO, Mental Powers are useless against them, unless those Powers can somehow affect physical objects. (See the *Cyberkinesis* rules on APG 70 for rules and discussion of this subject.) However, the operator and occupants of a Base are as susceptible to Mental Powers as they are normally (though some Bases do provide Mental Defense).

Additionally, characters may be able to “take control” of some part of a Base through appropriate applications of Telekinesis. A properly-constructed and -applied Telekinesis-based power could prevent elevators from moving, for example.

ENTANGLE

A character with an Entangle may be able to use it to “gum up” the moving parts of a Base — such as the pistons in the generator that provides it with power. The GM determines the effects, if any.

TELEPORTATION

If a character uses Teleportation Usable As Attack to move a Base, it affects the Base and everyone and thing in it. (Of course, to do this requires the character to be able to move the entire mass of the Base, making for a very costly power.) It does not cause the occupants to remain where they are while the Base moves to another location.

COMBAT MODIFIERS

Since Bases can’t take Actions or make attacks on their own, generally Combat Modifiers have no application to them. However, they may apply to characters using Base weapons in appropriate circumstances. For example, if the GM permits it as appropriate, a character could Bounce or Spread an attack made with a Base weapon.

AREA OF EFFECT ATTACKS

If a character uses an Area Of Effect attack against a target larger than human-sized — such as a Base — the damage only applies to the target one time. It does not apply to every Area that it affects. If necessary, the GM can reflect the nature of the attack in the description of the damage it causes and other secondary effects (“Don’t walk too near the edge of the bomb damage, Bob — the wall’s fragile there, it could collapse underneath you!”).

AUTOFIRE

Making attack and damage rolls for every weapon a Base fires in a Phase can become time-consuming and tedious. To keep combat moving quickly and smoothly, the GM might instead want to consider all of a Base’s weapons fired at a single target as an Autofire attack with a number of shots equal to the number of weapons fired. (If some of the weapons have Autofire capability themselves, you can either ignore that, or add their number of attacks to the overall total based on the number of weapons.) You could also use this method against multiple opponents, if the GM’s willing to determine how much area the attacks can be fired over.

TARGET SIZE

For Bases, their OCV+ modifiers from Size take the place of any Target Size modifiers. If a character uses a Base weapon to attack an object of unusual size — enormous vehicles, planets, and the like — he may incur Target Size modifiers in the usual fashion. The GM may apply the rules referenced above for larger-than-human targets, if desired.

COMBAT MANEUVERS

Since Bases can’t take Actions or make attacks on their own, generally they cannot use Combat Maneuvers. Characters using Base weapons may be able to use some Combat Maneuvers on their own, however.

HAYMAKER

At the GM’s discretion, a character could Haymaker with a Base weapon attack. This simulates taking extra time to aim carefully, shooting at a weak point in the enemy’s armor, or the like. However, since Bases already suffer serious “DCV” penalties based on their Size, a Haymaker performed with a Base weapon must use the optional “Offensive Haymaker” rule from 6E2 69, so that the character suffers an OCV penalty.

MULTIPLE ATTACK

With the GM’s permission, a character can make a Multiple Attack with a Base weapon in appropriate circumstances. However, since Bases already suffer serious “DCV” penalties based on their Size, instead of halving DCV this halves the character’s OCV.

STRIKE (SHOOT)

Bases use this Maneuver to make standard attacks.

In realistic long-range space combats, Bases need to beware the light-speed time lag. Light travels at 300,000 kilometers (300,000,000m) per second, so when a Base makes an attack against something 100,000 kilometers away, the beam hits where the target was two-thirds of a second ago. A Base with FTL sensors (*i.e.*, sensors able to detect things more than 300,000 km away) can avoid this problem. Bases without such sensors have to “guesstimate” where the target will be when the attack intersects its path; you can simulate this with an Attack Roll penalty of -3 for every 300,000 km of distance between the attacker and target (in addition to the standard Range Modifier).

SUPPRESSION FIRE

Bases may perform this Maneuver normally. Given the large number of weapons some Bases mount, they can often lay down Suppression Fire quite effectively.

Martial Maneuvers

Bases cannot buy or use Martial Maneuvers.



DETERMINING DAMAGE

Bases hit in combat take damage if the BODY damage caused by the attack exceeds their PD/ED. Most attacks against Bases hit a wall or similar structure. As discussed on 6E2 173, a character who exceeds the wall's BODY has created a human-sized (2m x 2m x 2m) hole in it. The size of the hole doubles for every +1 BODY inflicted over the wall's base BODY. However, the GM may wish to ignore or change this rule in particular circumstances. For example, against some types of walls a cannonball, no matter how much damage it does, can only create a hole so big. (The *Real Weapon* Limitation reflects this.)

As noted on page 13, it takes (Size x BODY) in BODY damage to totally destroy a Base. A Base reduced to half that amount cannot function, but is not yet fully destroyed — it can be repaired. A Base reduced by all of that amount is destroyed and cannot be repaired (though it could be rebuilt from scratch, perhaps using some salvaged materials from the destroyed Base). A Base that takes twice that amount in damage is smashed into so many little pieces it lacks any salvage value.

DAMAGE TO SYSTEMS/EQUIPMENT

Of course, sometimes the specific parts of or contents of a Base can be attacked separately. This occurs when you're using the advanced castle rules from Chapter Two, for example, or when an intruder gets into a Base and tries to destroy the sensor array's control console.

Regardless of whether the GM uses the Simple or Complex method of determining damage to a Base (see below), loss of all of the BODY in a system or piece of Base equipment causes that device to cease functioning. (Where a Base's character sheet provides no guidance, the GM can use the *Breaking Things* rules on 6E2 170-73 to determine the BODY and defense of a specific part of a Base.) For less than full damage, GMs should roll on the Device Malfunction Table on 6E2 172.

To determine how many BODY it takes to damage or destroy a specific part of a Base, the GM has several options. If it's a Focus, he can use the Focus rules on 6E1 378-79. If it's not a Focus, he can use the *Breaking Things* rules on 6E2 170-73. Alternately, he can simply divide the system's Active Points by 5, or just assign a number that seems appropriate to him.

Generally speaking, damage to Base systems or equipment is not separate from damage to the Base itself — if a Base's main gun takes 5 BODY damage, the Base itself loses 5 BODY from the overall total needed to destroy it. However, because a Base's BODY is not calculated by adding up the BODY of every system and piece of equipment on it, the GM must approach this issue with common sense in mind. The general rule works best for attacks directed at the Base itself which happen, through use of a Hit Location table or some other means, to damage a particular system as part of the overall attack. If an attacker targets a system, particularly a small or trivial one, directly, then in some cases the damage may only affect that system, and not reduce the Base's BODY as a whole. Similarly, if the GM's using the advanced castle rules from Chapter Two, that tells him the BODY of each individual "component" of the castle, so that he can determine the effects of attacks on each component separately.

BIGGER IS BETTER?

The *HERO System* has no rules about scaling damage — for better or worse, all damage is the same, and a small Base can easily mount a weapon with enough firepower to destroy a planet. Some GMs may prefer a more "realistic" approach, where the big, powerful guns mounted on large Bases automatically have an edge compared to the weapons on smaller Bases. To simulate this, subtract the target's Size from the larger Base's Size, and add the difference as points of BODY damage to every Normal or Killing Damage attack the larger Base makes against the target.

The reverse does *not* apply — smaller Bases don't reduce their damage when attacking larger Bases. Larger Bases typically already have the advantage of spending many more points on their defensive abilities; reducing the smaller Bases' damage could easily make larger Bases effectively invulnerable. And that's neither fun nor conducive to dramatic heroism.

APPLYING DEFENSES

Because many Bases have multiple layers of protection, the GM may need to consider which defenses apply first. Where common and dramatic sense don't suggest an answer, apply the *Layered Defenses* rules from APG 61.

A Base's PD/ED has Barrier-like properties, in that an attack whose BODY damage doesn't penetrate a Base's wall's PD/ED doesn't affect the occupants or contents of the Base. If an attack's BODY damage exceeds a Base's PD/ED, subtract the PD/ED from the BODY and STUN done by the attack, then apply that damage normally to any persons or objects in the path of the attack (typically, as indicated by an Occupant/Supplies result on Hit Location rolls). However, if a Base is large enough, there may be multiple walls between a point of attack and a given system or occupant, and those walls have PD/ED and BODY, too. In that case, the GM may ignore the Hit Location result, apply the Base's PD/ED once for each wall the attack passes through, or just apply the damage to the affected system normally, as he chooses.

SIMPLE BASE DAMAGE

Gamemasters desiring a quick, easy way to determine what happens when a Base takes damage should use this method. It sacrifices "realism" and complexity for smooth game play.

Bases which take damage slowly fall apart. Each time a Base takes BODY from an attack, the GM should roll on the Base Damage Table to determine the effects. The table lists a standard, "generic" effect for each result, but provides a randomizing option for GMs who prefer a little less predictability. (Alternately, the GM may choose to roll only when the Base takes a certain percentage of its "total BODY" in damage.)

COMPLEX BASE DAMAGE

Gamemasters preferring greater accuracy and "realism" should use the Complex method of Base damage, which involves Hit Locations and possible optional effects. These rules may also apply when a character in a campaign using Simple Base damage wants to target a specific system.

Since the concept of a "Base" covers so many different structures with so many different configurations, the standard Base Hit Location table is very "generic" in its terminology and rules; GMs should adapt it to specific types of structures as needed. The more specialized ones for Castles, Space Stations, and Superbases are slightly more specific, but even then the vast breadth of Base designs puts the burden on the GM to adapt the tables to specific situations that arise in his campaign.

In the Base Hit Location tables, "BODYx" represents the multiplier to the BODY damage rolled on the attack. "Optional Effect" lists the chance that any BODY damage done to the Base will have some additional effect (see below). "To Hit" is the OCV penalty for specifically targeting that part of the Base (this typically adds to (thus in effect reducing) the "OCV+" bonus that attackers get for trying to hit a Base in general). The Attack Roll modifiers depend not only on the general size of the system, and its BODYx, but on the chance for an optional effect, and the potential severity of such an effect.

BASE DAMAGE TABLE

First Roll	Second Roll	Effect
1	1-3	A significant structural support is hit, causing part of Base to collapse; attack's damage is multiplied by 3 (or $\frac{1}{2}d6+1$) for purposes of assessing damage to the overall Base
1	4-6	As 1/1-3, but only multiply by 2 (or $\frac{1}{2}d6$).
2	1-3	-2 to Attack Rolls with any Base weapon (or 1d6-3, minimum of 1; or -1 per 1 BODY suffered)
2	4-6	Damage applies to supplies or a piece of Base equipment (Base's PD/ED has no effect, or half effect)
3	1-3	Base's largest Power loses 50% of its Active Points (or $2d6 \times 10\%$ of the Power's Active Points, maximum of 100%; or -5 Active Points per 1 BODY suffered)
3	4-6	Damage applies to occupants (GM determines who gets hit randomly; Base's PD/ED has no effect, or half effect)
4	1-3	One weapon loses 50% of its Active Points (reroll if Base is unarmed) (or $2d6 \times 10\%$ of the Power's Active Points, maximum of 100%; or -5 Active Points per 1 BODY suffered)
4	4-6	One defense loses 50% of its Active Points (or $2d6 \times 10\%$ of the Power's Active Points, maximum of 100%; or -5 Active Points per 1 BODY suffered)
5	1-3	One sensor/communications system loses 50% of its Active Points (or $2d6 \times 10\%$ of the Power's Active Points, maximum of 100%; or -5 Active Points per 1 BODY suffered)
5	4-6	Attack hits a particularly durable or well-defended part of the Base; reduce damage by 30% ($(\frac{1}{2}d6+1) \times 10\%$).
6	1-3	Attack hits a particularly durable or well-defended part of the Base; reduce damage by 50% ($(1d6+1) \times 10\%$).
6	4-6	No effect (beyond the loss of BODY)

DAMAGE TO OCCUPANTS

On most Base Hit Location tables, the possibility exists of the occupants (and/or the supplies) being hit by an attack (and of course, an attacker may target the occupants or supplies specifically). Here's how to deal with that situation.

Typically, an attack on a Base damages the Base first and foremost. If an Occupants/Supplies result comes up on a Base Hit Location table, the damage applies to the Base as normal. Any damage that gets through the Base's defenses then applies to the occupant(s), and their personal defenses protect them against it.

In the case of Bases whose PD/ED provides only Limited Coverage (page 14), in many cases that means the PD/ED does *not* protect the occupants and supplies, and thus that a hit on them doesn't harm the Base itself (or harms it minimally, at best). For example, a castle usually leaves its baileys open to the air (unroofed), so an Occupant/Supplies hit might indicate that a missile made it into the bailey unhindered and thus not affect the Base at all — the damage goes straight to the occupants and/or supplies, and they apply only their personal defenses against it.

If a Base has multiple occupants, and/or one or more sources of supplies in addition to occupants, the GM must determine randomly what gets hit when an Occupants/Supplies result occurs. In many cases the angle and nature of an attack indicates what part of the Base's interior is most likely to have suffered damage.

The optional effects for each Base often indicate casualties of a percentage of the occupants (for example, "Base suffers 2-12% casualties among the occupants"). This generally assumes the Base has a large group of occupants. If that's not the case, the GM may alter the result to a specific number of casualties, or apply the random percentage as best he can.

OPTIONAL DAMAGE EFFECTS

The notes for some locations included with each Hit Location Table list some possible optional effects for each part of the Base that might get hit in combat. If a Base suffers actual BODY damage in combat, the GM may, if he wishes, determine if an "optional effect" of damage occurs as a result. Gamemasters may roll randomly for an effect, choose an effect, or make up other effects, as they prefer. The GM need not apply any additional effect if he doesn't want to.

As the GM and players make multiple Hit Location rolls over the course of a battle, they may roll similar results for a type of system on a single Base. The GM must decide whether only the worse result applies (the usual method) or the results are cumulative (a less common, but sometimes appropriate, outcome).

Other Damage Effects

At the GM's option, Bases may also suffer the effects of Impairing, Disabling, and/or Bleeding.

IMPAIRING AND DISABLING

When a Base takes Impairing damage, one of its systems or pieces of equipment, determined at random by the GM (often by using the appropriate Hit Location table), is damaged directly. Reduce the system's effectiveness by 5 Active Points for each point of BODY damage the attack does to the Base (after PD/ED, but before the BODYx multiplier). This can include the INT of the onboard computer, the EGO of an AI, or an occupant of the Base (think of the occupants as "systems" in this case).

Disabling damage is handled as with Impairing damage, except that the damaged device is automatically destroyed (or rendered nonfunctional). It may even be severed from the Base, at the GM's option.

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BASE HIT LOCATION TABLE

Roll	Location	BODYx	To Hit
3-5	Structural Support	x2	-8
6-7	Accessway	x½	-4
8-11	Wall	x1	-3
12	Occupants/Supplies	x½	-4
13-15	Utility System	x½	-3
16-18	Power System	x1	-4

Notes:

Wall: When a wall is hit, if appropriate roll 1d6 to determine the general location of the hit: 1-2 bottom; 3-4 middle; 5-6 top.

Accessway: An elevator, stairwell, or other means of moving into, out of, or through the Base. This doesn't necessarily affect the structure of the Base much, but can be a major problem for the occupants.

Occupants/Supplies: This indicates a hit on the Base's occupants, or to its supplies (if appropriate). When this result occurs, roll 1d6-1 (minimum of 0). The result indicates the percentage of the Base's Occupants or Supplies injured, killed, damaged, or destroyed by that hit. This result can also indicate damage to some sort of system included in the base for its personnel, such as a sauna or a theater.

Utility System: Plumbing, HVAC, lighting, water, or the like.

Power System: A generator, steam pipe trunk distribution venue, major junction box, or the like. On a roll of 1 on 1d6, this causes an additional explosion (or the like); the Base suffers 1½d6 Killing generalized damage

CASTLE HIT LOCATION TABLE

Roll	Location	BODYx	To Hit
3-7	Tower	x1	-4 OCV
8-11	Wall	x1	-3 OCV
12	Bailey/Occupants/Supplies	x½	-4 OCV
13	Gatehouse	x1	-6 OCV
14-15	Bartizan/Bretèche	x½	-5 OCV
16-17	Bastion/Outwork	x1	-4 OCV
18	Moat	x1/3	-4 OCV

Notes:

Walls/Towers: When either of these is hit, roll 1d6 to determine the general location of the hit: 1-2 bottom/plinth; 3-4 middle; 5-6 top/battlements. (Alternately, use the *Wall Hits With Siege Engines* table on page 202.)

Bailey/Occupants/Supplies: This indicates a hit on the bailey and its features (such as the great hall, chapel, or donjon), to the castle's occupants, or to its supplies (food, weapon and ammunition stores, and the like). When this result occurs, roll 1d6-1 (minimum of 0). The result indicates the percentage of the castle's Occupants or Supplies injured, killed, damaged, or destroyed by that hit.

Gatehouse: A hit on the gatehouse could indicate the gatehouse itself, a barbican (if present), or even the gates or drawbridge.

SPACE STATION/SUPERBASE HIT LOCATION TABLE

Roll	Location	BODYx	To Hit
3-4	Structural Support	x2	-8
5-6	Accessway	x½	-4
7-8	Tactical System	x1	-6
9-11	Wall	x1	-3
12	Occupants/Supplies	x½	-4
13	Sensor/Communications System	x1	-5
14-15	Utility System	x½	-3
16-18	Power System	x1	-4

Notes:

Wall: When a wall is hit, if appropriate roll 1d6 to determine the general location of the hit: 1-2 bottom; 3-4 middle; 5-6 top.

Accessway: An elevator, stairwell, or other means of moving into, out of, or through the Base. This doesn't necessarily affect the structure of the Base much, but can be a major problem for the occupants.

Tactical System: A weapon, energy shield generator, military computer system, or the like. On a roll of 1-2 on 1d6, roll on the following table (ignore inapplicable results):

Roll Tactical Systems Effects

- One weapon suffers a loss of 40-90% of its Active Points
- One electronic countermeasures/counter-countermeasures system disabled or destroyed
- Two weapons each suffer a loss of 10-60% of their Active Points (if plane has only one weapon, apply result 1)
- Cascading internal explosion; roll randomly on Space Station Hit Location Table and inflict 1d6 BODY damage to resulting system/section (no defense applies)
- 2 OCV for all Base attacks
- 4 OCV for all Base attacks

Occupants/Supplies: This indicates a hit on the Base's occupants, or to its supplies (if appropriate). When this result occurs, roll 1d6-1 (minimum of 0). The result indicates the percentage of the Base's Occupants or Supplies injured, killed, damaged, or destroyed by that hit. This result can also indicate damage to some sort of system included in the base for its personnel, such as life support, a holographic entertainment suite, or a theater.

Sensor/Communications System: The Base's ability to perceive and/or transmit either internally, externally, or both. On a roll of 1-2 on 1d6, roll 1d6 and multiply the result by 10; that's the percentage of its Active Points lost by one such system (determined at random).

Utility System: Plumbing, HVAC, lighting, water, or the like.

Power System: A generator, steam pipe trunk distribution venue, major junction box, or the like. On a roll of 1-2 on 1d6, this causes an additional explosion (or the like); for a 1, the Base suffers 3d6 Killing generalized damage; for a 2, it suffers 1½d6 damage.

BLEEDING

The Bleeding rules can apply to Bases, if you consider them not literally as loss of blood, but loss of functionality, parts, vital fluids, and the like. The Bleeding rules apply normally. The Base of course loses no STUN, but you must roll for STUN loss to determine if a 6 results, indicating a loss of 1 BODY. (At the GM's option, loss of BODY may occur more frequently, such as on a roll of 5-6 or 4-6.) Characters can use an appropriate Skill (Mechanics, Electronics, or the like) to stop the Bleeding the same way Paramedics stops characters from Bleeding.

REPAIRING DAMAGE

Bases do not “heal” on their own — they have to be repaired. While some advanced Bases have self-repair systems (Healing, Regeneration, or Computers with waldos and appropriate Skills, for example), most have to be repaired by characters.

REPAIRING OVERALL DAMAGE

The standard rule for repairs is that damage can be repaired at the rate of 1 BODY per day, but that the GM can alter this if he sees fit. In most campaigns and situations, you can interpret this to mean 1 BODY *per person making repairs* per day, so that if three characters fix a Base, they can restore 3 BODY to it per day. Characters may specify what parts of the Base they want to work on first: “Let’s start by repairing the damage to the weapons, so we can use them if those cannibal motorcyclists come back to try to steal our food again.”

When it’s possible for large numbers of characters — such as the engineering crew of a starbase — to work on Base repairs, it may make more sense for the GM to use the Crew Skill rules described on page 192. Otherwise, even enormous amounts of damage can be quickly repaired, which may not be appropriate for the game.

The standard rate of repair assumes characters have access to proper tools, a supply of spare and replacement parts, and so forth. If those things aren’t available, the GM should reduce the number of BODY repairable per day.

In many situations, the GM can simply assume that general Base repairs succeed, but in other cases (particularly where there’s a deadline), a Skill Roll is appropriate. Mechanics is the appropriate Skill for general Base repairs. However, depending on circumstances, Computer Programming, Electronics, Systems Operation, Weaponsmith, or various PSs or SSs might be better — or might act as Complementary Skills. At the GM’s option, the Skill Roll suffers a penalty of -1 per 2 BODY damage the Base has sustained.

REPAIRING SYSTEM DAMAGE

Sometimes mid-combat repairs to damaged systems are the only thing keeping a Base fighting long enough to win the battle! Assuming a system hasn’t been totally destroyed by being reduced to 0 BODY (which means it has to be replaced), characters can initiate repairs by making rolls using Mechanics (or any other Skill the GM deems appropriate given the system or technology involved). Making repairs typically requires a minimum of 1 Turn (often longer), and the roll suffers a penalty of -1 per 2 BODY of damage done. For every two points by which the roll succeeds, the character makes a quick repair to the system, restoring “1 BODY” of damage. This repair is temporary; later, when time allows, full repairs must be made. Once a repair is made, the GM rolls on the Device Malfunction Table (6E2 172) to see if that was enough to get the system working again.

The repair does not restore any BODY to the system for purposes of suffering further damage — it only restores BODY for purposes of keeping the system functioning properly. (True repairs follow the standard rule stated above for general repairs.) If the system suffers further damage, the repairs are ruined and BODY damage accumulates from the point where the character began repairs.

Example: *Lt. McDermott needs to repair his Laser Cannon so he can go on fighting. It has 20 BODY, but it’s taken 12 BODY damage and stopped working. Using his Weaponsmith (Energy Weapons) 14-, he tries to jury-rig a quick fix so he can get back to the battle. This takes him 1 Turn, and he suffers a -6 penalty to his roll due to the 12 BODY of damage. He rolls a 4, making the roll by 4. That repairs 2 BODY of damage. The GM rolls on the Device Malfunction Table, and succeeds; the laser is working again! However, if it suffers more damage, the “2 BODY” repaired instantly vanishes, and damage starts accumulating again, adding to the 12 BODY already inflicted.*

OTHER COMBAT RULES

Here are some additional rules regarding Bases in combat.

KNOCKBACK

Bases do not suffer Knockback.

BASE PUSHING

See page 176 for rules on how Bases can Push their powers.

Sieges

A *siege* is a special type of combat situation in which the defender occupies a highly defensive structure — typically a castle, keep, or fortress — while the attacker uses direct assaults, siege engines, and other tactics to try to either batter down the structure's defenses or sneak inside them. Typically the attacker significantly outnumbered the defender (otherwise, the defender could probably meet the attacker in open battle). While an attacker was sometimes able to reduce (destroy or render ineffective) a castle in a matter of hours, sieges were often long, drawn-out affairs, sometimes lasting years, with periods of intense, highly dangerous activity punctuating long stretches of boredom. The defenders were often more likely to die from starvation, thirst, or disease than the enemy's weapons... assuming the attacker didn't just give up and leave, or run to escape from arriving reinforcements.

See the Wall BODY Table (page 55) and the rules for Siege Engines (page 162) for more information relevant to this subject.

ASSAULTING A FORTIFICATION

Attacking a castle or walled city was not an easy prospect. If the attacker couldn't break down the gates or walls with siege engines, the only other prospects were treachery on the part of a defender, going over the wall, or going under the wall. If the attacker gets inside the walls, you can resolve the battle using the normal combat rules (or the Mass Combat rules in *Fantasy Hero*; the defender usually gets a DCV bonus for being in a "village" or "town").

TREACHERY

More than one siege ended because a traitor inside the walls was paid to open the gates or disable the defenders, or because desperate people overthrew their own ruler to end the siege. There are no rules for this; it's a matter of roleplaying and story development.

GOING OVER THE WALL

Perhaps the most popular method of direct assault was to have squads of soldiers climb up to the top of the walls, clear away enough defenders to establish a beachhead, and then bring the rest of the army up and eventually get the gates open. While this sounds easy in theory, it was often extremely difficult, for several reasons.

First, climbing the walls requires ladders (see page 165), which the attackers have to bring with them or build on the spot. Unless the attackers have so many ladders they can overwhelm the defenders with sheer numbers, the defenders can usually push the ladders away. Raising a ladder requires an Attack Action once the attackers are in an appropriate position; characters can climb ladders at the rate of 4m per Phase, rather than the usual maximum of 2m per Phase for regular Climbing. (The GM can increase this to 1/3 of a character's Running in the case of faster than normal characters, if desired.) A defender can

push one ladder off the walls (or cut one rope ladder) as an Attack Action; this may require a STR Roll if the ladder is fully loaded with climbers, but usually requires no roll at all. If the ladder falls with soldiers on it, those soldiers take falling damage. (The same thing happens if the soldiers overload the ladder and it breaks.)

Second, the defenders have a lot of cover. Trying to hit a defender behind the battlements usually means a -3 OCV (or greater) Behind Cover penalty for attackers outside the walls; being in a loophole is a -8 penalty. Once an attacker gets on top of the wall, a defender's DCV bonus vanishes. On the other hand, attackers scaling the walls are not only out in the open, but because they're climbing a ladder they suffer the standard penalties for climbing (6E2 46-47), and usually need to use their hands for holding on instead of attacking or Blocking.

Third, defenders had special weapons they could use against attackers. In addition to siege engines of their own, they could drop boiling oil, boiling tar, or rocks and other heavy objects on attackers near the walls, inflicting terrible injuries. (See page 166.)

In short, assaulting a castle's intact walls is not a job for the faint of heart.

GOING UNDER THE WALL

Another tactic was to dig under the wall, either to tunnel into the castle's interior, attempt to collapse a wall by undermining its foundation, or in later sieges to plant gunpowder explosives under the walls and blow them up. Mining or *sapping*, as this activity was sometimes known, had the benefit of not always being visible to the defenders — some tunnels began as much as a mile away from the walls! On the other hand, sappers sometimes wanted to get close to the wall to minimize the amount of digging they had to do, so they used a mobile protective device (usually called a cat, mouse, weasel, sow, or mantlet) to cover them while they were close to the walls. See page 165 for game statistics for a typical cat; larger, tougher ones were sometimes constructed.

Digging tunnels takes a crew of six persons and proceeds at the rate of 20m per day; this requires no Skill Roll. For more or fewer miners, alter the speed of digging proportionately, but no more than 12 persons can work on a tunnel at once. This rate of digging assumes the miners properly brace their tunnel for safety. They can proceed twice as quickly if they ignore safety precautions, but in this case the GM must make a roll at least once per day for tunnel safety. The base roll is 14-, -1 for every 20m of tunnel beyond the first 20m. If the roll ever fails, part of the tunnel collapses. The collapse affects ½d6 x 20m of the tunnel. The GM should randomly determine what part of the tunnel collapses. Anyone trapped in a collapse takes 2d6 of dice of Normal Damage; he may suffocate.

The standard rate of tunneling assumes digging in relatively firm earth. For harder materials (such as solid rock), reduce the rate appropriately, but raise the roll for collapses to 16-; for softer soils,

increase the digging speed but reduce the roll to 12-. Other problems, such as groundwater seeping into the tunnel, may make the digging harder or even impossible.

When the tunnel reaches the walls, the miners must properly undermine them. The leader of the miners must make a PS: Siege Engineer roll to direct the undermining properly. If the roll succeeds, undermining proceeds at the rate of one day per 6m length of wall undermined (this includes not only the digging time, but the time required to brace the wall so it doesn't fall until the miners want it to). If the lead miner fails his roll, either he has directed the miners to dig in the wrong place, or a collapse occurs (see above).

Once all the undermining is complete, the miners have two options. In a game without gunpowder, the leader makes another PS: Siege Engineer roll to collapse the undermined section of wall. If he succeeds, that section of the castle's wall takes 1d6+1 of dice of Killing Damage (no defense applies). The damage applies to the walls using the normal rules, but the hole in the wall cannot spread beyond the defined length of wall that was undermined. If he fails, the castle walls take no damage. In a game with gunpowder, the attackers can make a Demolitions roll to place bombs and use them to collapse the walls. If the roll succeeds, the wall takes 1½d6 of dice of Killing Damage (no defense applies). If the roll fails, the persons placing the gunpowder usually blow themselves up and collapse the tunnel near them without affecting the castle at all.

If more than one miner has PS: Siege Engineer, the others can make a Complementary Skill Roll to help the lead miner.

To counteract mining, castle designers sunk fortifications' foundations deep, or dug deep moats around them. During battle, defending engineers might dig counter-tunnels to intercept and kill the sappers, or try to flood sappers' tunnels. To detect sapping, defenders sometimes established warning systems consisting of bells, bowls of water, or other objects that would react to the vibrations of digging. In general, mining failed as an attack more often than it succeeded.

To detect mining, a character inside the castle must use his PS: Siege Engineer in a Skill Versus Skill Contest against the miners; he may receive bonuses to the roll if the castle has detection systems such as the ones described above, or he can easily guess the direction of the tunnel based on aboveground evidence. If he succeeds, he can initiate countermining operations using the same digging speed rules as the attackers — he just has to start in time to intercept their tunnel.

MAGIC IN SIEGES

Magic can play a part in sieges just as it does in major battles. A wizard's spells could strike castle walls as hard as any trebuchet missile, but with only a fraction of the time and effort required. Other spells might let combat engineers build otherwise impossibly large and powerful siege engines (by magically strengthening the materials used, enchanting the working parts for greater efficiency, and so forth).

Even non-battle magic spells could play a major role in a siege. A wizard who can fly, or grant others the power to fly, eliminates the need for scaling ladders. An *Archer's Frustration* spell (+10 PD Resistant Protection, Only Versus Arrows) could easily tip the balance in favor of the attacking army, while spells to shield castle walls from siege engine missiles could lead to victory for the defenders. A wizard with a spell that can tunnel through stone or make walls collapse would be invaluable to the attackers (and become one of the defenders' main targets), while one with a Spell Of Stone Repair could keep towers and walls strong.

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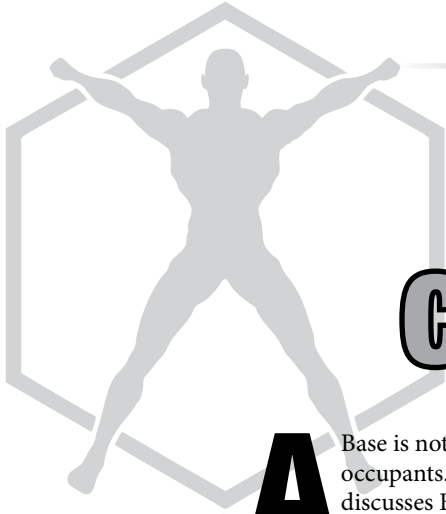
WALL HITS WITH SIEGE ENGINES

When a siege engine hits a castle with its missile, the GM may sometimes need a method to determine which part of the wall experienced the impact. The Castle Hit Locations Table on page 199 has rules for this, but if your campaign doesn't use Hit Locations, you can use the following table. For these purposes assume that the plinth of the wall covers the bottom 20% of it.

Roll (1d6)	Part Of Wall Hit
1	0-10% above the ground
2	11-39% above the ground
3	40-65% above the ground
4	66-90% above the ground
5	91-100% above the ground
6	Over the wall (missile lands somewhere behind the walls)



CHAPTER SEVEN
HOMEOWNER
HEROES:
CHARACTERS AND BASES



BASES AND CHARACTERS

A Base is nothing without its owner and occupants. While the rest of this book discusses Bases themselves, this chapter looks at the people who build and live in them.

SKILLS

Base-building characters are often Skill-oriented characters... or at least they're the ones stuck with keeping the Base running. While the rest of the team's enjoying a pizza in the Monitor Room, the hapless gadgeteer's slaving away to make sure the turbo-elevators are working properly.

TECHNOLOGICAL AND REPAIR SKILLS

Two sets of Skills are most common among characters who interact a lot with Bases. The first are the Skills related to building and maintaining the Base. Besides Mechanics, Electronics, and Weaponsmith, this can include a lot of Professional Skills like Architect, Architectural Engineer, Construction Foreman, and the like. Those PSs don't necessarily come into play a lot during the game, but they're a great way to flesh out a character's background.

The second are the technology-oriented Skills needed to use a Base's equipment. Systems Operation is the most common here, but WF, Security Systems, Computer Programming, and others might apply.

ANALYZE

Analyze Construction and Analyze Technology are possible forms of this Skill that might apply when characters evaluate a Base; Analyze Base is specifically chosen for that purpose. Since characters and Bases don't interact in combat the way two characters do, the results of a successful Analyze Base roll differ from the Analyze norm somewhat.

If a character succeeds with an Analyze Base roll by 0 (exactly), he has a general idea of the nature and capabilities of the Base (to the extent they're not obvious from a visual inspection). For example, he might realize that the Base has more air conditioning equipment than it needs given its outer appearance and publicly-stated business, and thus deduce that the Base's owners are hiding something.

If a character succeeds with an Analyze Base roll by 1-2, he can determine with reasonable certainty what the Base is used for, and what its capabilities are. This can often be determined without any need for a roll, but if the Base's occupants are deliberately concealing something, Analyze Base gives a PC the chance to figure that out before setting foot inside.

If a character succeeds with an Analyze Base roll by 3 or more, he learns something distinctive or unusual about the Base that grants him a +1 on Skill Rolls to affect it or use its equipment.

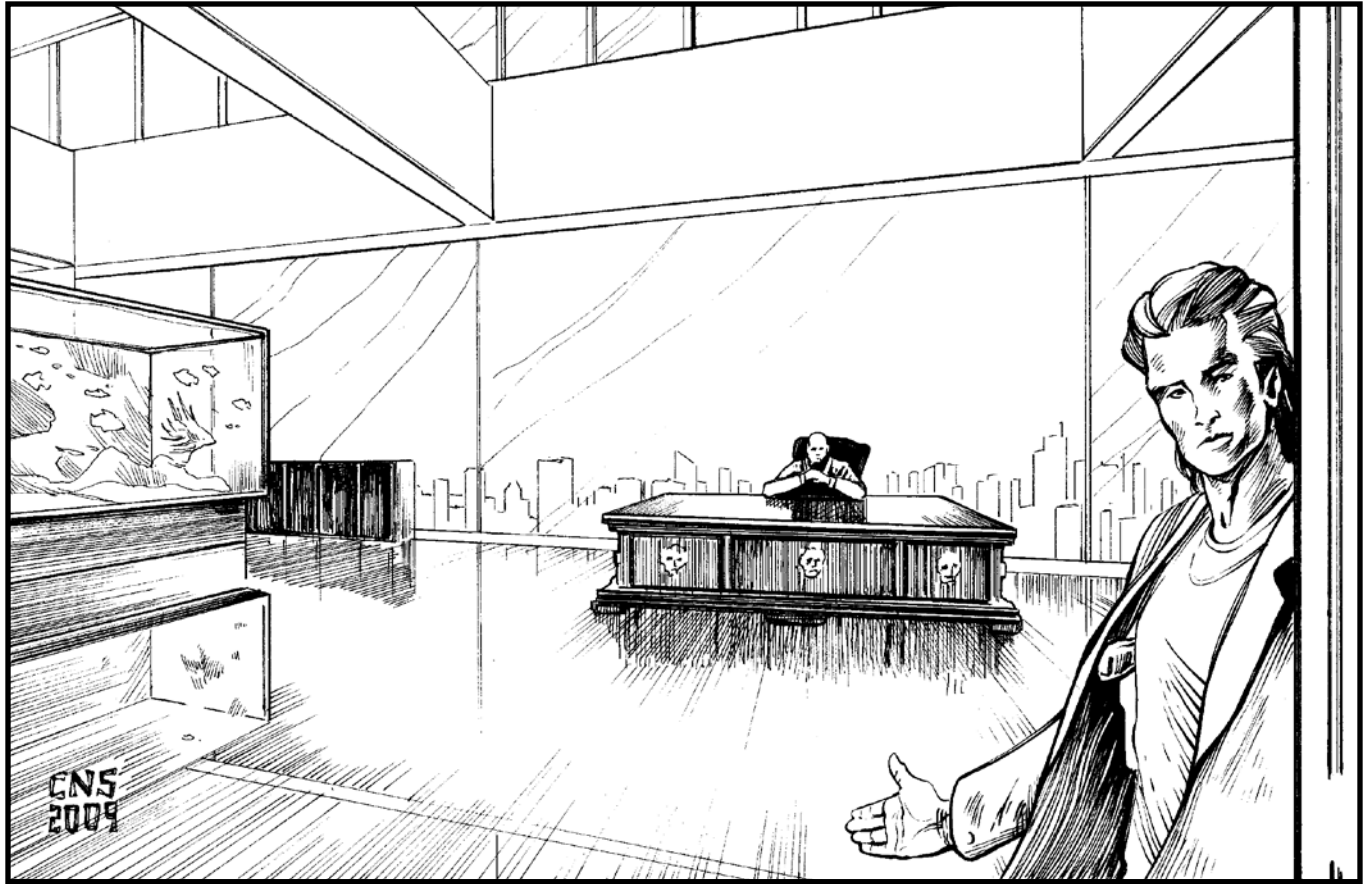
If a character succeeds with an Analyze Base roll by half or more, he gains +2 for all relevant rolls involving the target Base or its equipment. Alternately, the GM can grant the character a 25-50% damage bonus for attacks made against the Base since he's aware of its weak points, how to sever its main structural supports, and so on.

BUGGING

A Knowledge Skill of a particular Base, or a successful Analyze Base roll pertaining to that Base, acts as a Complementary Roll when a character tries to plant a bug in that Base.

CLIMBING

Characters often try to Climb the walls of Bases (for example, to get to the roof, where security's lighter, so they can sneak inside). See page 109 of *The Ultimate Skill* for advanced rules and an extensive list of appropriate modifiers.



COMBAT SKILL LEVELS

A Combat Skill Level with [Base]’s Weapons (all the weapons on a particular Base) is a 3-point CSL, and can only be applied to OCV. A CSL with *Base Weaponry* (any type of Base-mounted weapon) is a 5-point CSL, and can only be applied to OCV. Typically, either type of CSL applies only to Ranged attacks, but they’d apply to HTH Combat in the unlikely event a Base has a HTH Combat attack. An 8-point CSL with All Ranged Combat, or a 10-point CSL, could also be used to increase a character’s OCV (or damage) with a Base weapon.

PENALTY SKILL LEVELS

Offensive PSLs with Base Weapons are 2-point PSLs. However, the GM may not want to permit characters to buy these, instead preferring that they buy CSLs (see above), since most of them can only be applied to OCV anyway.

PROFESSIONAL SKILLS

There are plenty of PSs that relate to Bases in some way. For example, PS: Architect was mentioned previously. In a Fantasy context, PS: Siege Engineer is used for various siege-related tasks (both by attackers and defenders); PS: Combat Engineer would also apply (particularly to the design and construction of a castle).

SKILL LEVELS

Skill Levels with “Base Equipment” are typically 3- or 4-point SLs, depending on how many Skills a Base has (or equipment it has that requires Skills). Generally GMs should examine any such Levels carefully, since there may not be a good reason for characters to be skilled with Base equipment but not similar equipment that isn’t installed in a Base.

SYSTEMS OPERATION

In Base-oriented campaigns, this Skill becomes quite important, since characters use it to operate most types of Base equipment. To prevent every character from being equally skilled at operating all types of systems, the GM may wish to “subdivide” Systems Operation. Examples of this can be found on page 329 of *The Ultimate Skill*. Game-masters may also want to consider breaking the Skill down by culture, species, technology level, or the like.

WEAPON FAMILIARITY

If appropriate, GMs can permit Computers and characters to buy a new category of Weapon Familiarity, *Base Weapons*. This allows a character to use all the weapons built into a single Base proficiently. It must be bought separately for each Base. (However, a single WF: Bases might carry over to other Bases that are largely identical, such as any of the Galactic Empire’s orbital fortresses.)

PERKS

Here are some guidelines on how Perks relate to Bases.

ACCESS

Characters buy this Perk to gain easy, often secret, entrance to Bases they'd otherwise be barred from. If a lot of characters have Access to a Base, the GM might grant the Base a Physical Complication representing its porous security.

BASES

In most campaigns, characters who want special Bases have to pay Character Points for them. Heroic campaigns allow character to buy standard civilian Bases with money, and may even allow characters to purchase special Bases with money (particularly if every character has one). Gamemasters for Superheroic campaigns often allow characters to buy standard civilian Bases (such as an ordinary house) with money as well.

In many campaigns the GM may not require characters to pay Character Points for a Base at all. If the GM wants to use the Base as a focal point for plots and adventures (such as having the PCs' enemies attack or invade it), it's often unfair to make them spend their scarce Character Points on something that's as much a hindrance as a help. Even if the GM decides he does want the PCs to pay for a Base, he can reduce the cost if he feels that's appropriate.

BUYING BASES

If characters must pay Character Points for a Base, the minimum cost of a Base is 1 point.

If a character wants a "stock" Base (a normal, commercially-available building of some sort, such as a house) but with a few adjustments or extra pieces of equipment, typically he must pay Character Points for the entire Base. He can't obtain a standard civilian Base for free, then just pay for the "upgrades" he wants (unless the GM permits this).

Characters typically should not purchase Bases through Power Frameworks.

Gamemasters who want to make buying a Base easier for characters should consider changing the cost of the Perk. Instead of 1 Character Point for 5 Character Points' worth of Base, you could increase the ratio to 1-for-10, or even 1-for-20.

MONEY AND BASES

At the GM's option, the following rules may apply in campaigns where characters can buy Bases with money. In essence, the Character Point value of a Base the character can buy depends on his personal wealth (as indicated by the *Money* Perk). These rules are best applied to the most common type of "civilian" Bases in the campaign, such as mansions or apartments.

A character who's Poor or Destitute cannot buy a Base at all — or, at most, can acquire a badly run-down apartment or the like. (At best, this would be a Base costing up to 10 Character Points, and it should have a lot of Complications.)

A character with Middle Class income can have a Base costing up to 20 Character Points (*i.e.*, a Base built on 100 Character Points). If a character wants a Base that costs more than 20 points, he must pay for the difference with Character Points.

Characters who pay for the *Money* Perk can add the value of their Money to the 20 points for Middle Class. Thus, a Well Off character can have a Base costing up to 25 Character Points, while a Filthy Rich one can have a Base costing up to 35 Character Points.

These rules only apply as long as the Base remains relatively "normal." As soon as the character starts to significantly modify it for combat or adventuring purposes, including mounting any weapons on it, these rules don't apply and he has to pay for the whole thing with Character Points. The GM determines what constitutes a "significant" modification.

COMPLICATIONS

Here are a few notes on Complications appropriate for characters with Bases.

DEPENDENCE

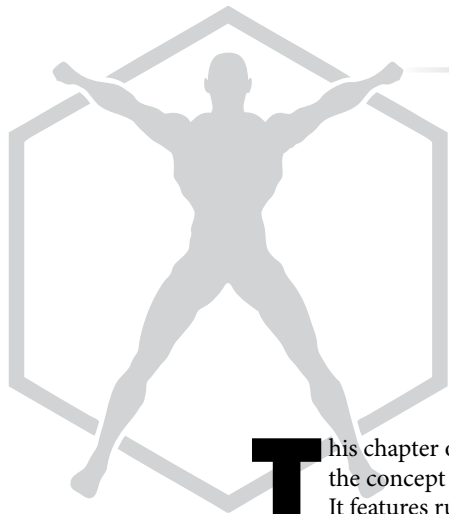
It's possible that a character could have a Dependence on his Base — for example, he has to hook himself up to unique machines in his Base to keep his body from breaking down. Since the character controls the Base, it typically counts as a Very Common/Easy To Obtain substance (even though it's unique).

DEPENDENT NON-PLAYER CHARACTER

Bases often need technicians, mechanics, engineers, cooks, maids, secretaries, and other personnel to keep the Base functioning properly or see to the needs of the Base's owner. In many cases these are taken as DNPCs for the Base itself, but sometimes it's more appropriate for one of the Base's owners to take a prominent employee as his own DNPCs. A DNPC for a Base only becomes involved in adventures that take place at or in the Base itself; a Base owner's DNPC could factor into adventures taking place anywhere.



CHAPTER EIGHT
KINGDOMS



KINGDOM CREATION

This chapter of *The Ultimate Base* takes the concept of a “Base” to all-new levels. It features rules for creating and playing nations, kingdoms, cities, planets, organizations, and similar entities as “characters” in the *HERO System*. Collectively, for game purposes, these entities are referred to as *Kingdoms* (capital K), even though many aren’t kingdoms in the traditional sense of that word.

CREATING KINGDOM CHARACTERS

Creating a Kingdom character is more or less the same as creating personal Player Character: you get Character Points that you can spend on Characteristics, Skills, and other abilities for your Kingdom. However, unlike personal PCs, Kingdoms generally do not have Complications; they simply receive a lump sum of Character Points from the GM “for free” at the start of the campaign. (But see *Complications*, below.)

The accompanying table suggests Character Point guidelines for different types of Kingdom campaigns based roughly on era and level of technology. However, even moreso than for personal PCs, these are *suggestions*. Because Kingdoms aren’t as precisely defined as personal PCs, different gaming groups can take *very* different approaches to Kingdom play, even in the same genre, time period, or campaign setting. One group might define its Kingdoms in a broad-strokes way that requires relatively few Character Points, while another goes into a level of detail that matches or exceeds most wargames and needs lots of Character Points for each Kingdom.

KINGDOM CHARACTERS

Era/Type Of Campaign	Suggested Character Points
Low Fantasy	175-300
High Fantasy	250-400
Modern-Day	325-600
Low Science Fiction	400-800
High Science Fiction	500-1,000, or more

ROUNDING

Unless noted otherwise, the standard *HERO System* rounding rules apply to Kingdom creation, as does the rule that the minimum cost of anything is 1 Character Point. Kingdoms can’t buy a few extra points of something (such as STR) “for free” by exploiting the rounding rules. For example, if a Kingdom wants to buy 50 STR Points, that costs 13 Character Points, not 12 (though for 13 Character Points it could buy up to 52 STR Points if it wanted them.)

MIXING KINGDOMS AND PERSONAL CHARACTERS

In many campaigns, the GM and players will mix personal-level PC play with Kingdom-level play. For example, each player might create a Kingdom, then create a key person within that Kingdom (typically, but not necessarily, the Kingdom’s ruler or leader) as his personal-level PC. Play can then shift between Kingdom-level political interaction and personal-level adventure, with each aspect of the campaign affecting the other to some degree. See pages 223-24 for more information on this.

CHARACTERISTICS



Kingdoms are defined, first and foremost, by their Characteristics. They use many of the standard *HERO System* Characteristics, but those Characteristics have different meanings, implications, and uses than they do for standard characters (just like they do with ordinary Bases, and with Vehicles).

All Characteristics for Kingdoms have a Base Value of 0.

Strength

STR represents a Kingdom's military power — its ability to defend itself against invasion, to project military might abroad for various purposes, and so forth. STR costs 1 Character Point per 4 points of STR. These are referred to as *STR Points*. For example, a Kingdom that spends 10 Character Points on STR would have 40 STR Points to allocate to its military (see below). (If a Kingdom wants to buy an amount of STR Points not evenly divisible by 4, that extra amount costs 1 Character Point; Kingdoms can't get a few extra STR Points "for free" by exploiting the rounding rules.)

The GM can alter the cost of STR based on his and the players' desires for the campaign. A game that features a lot of military action and/or precisely-defined military organizations and units may want to give many more points of STR per Character Point; one in which military action is highly abstract, secondary, or not even contemplated might change STR to 1 Character Point per point.

USING STR POINTS

After purchasing STR, you must decide how to "spend" your STR Points to buy/define your Kingdom's military forces.

The GM determines what categories of military units exist in the campaign. In a typical Kingdom campaign, Kingdoms have three types of STR:

- Ground (STRG);
- Water (STRW); and
- Air (STRA)

These represent the Kingdom's armies, navies, and air forces, respectively. You must allocate your Kingdom's STR Points among these three categories as you see fit, based on how you envision your Kingdom, what you expect to happen in the campaign, and your general goals for your Kingdom. Unless the GM rules otherwise, you can

put as many of your STR Points into one category as you wish, and there's no requirement that you put some minimum number of points in any category.

Example: *Paul's designing a Kingdom for a Kingdom campaign based on the interactions of the nine duchies that comprise an island realm. Paul's chosen duchy is in the highlands, far from the sea. Paul bought STR 10, so his Kingdom has 40 STR Points to spend. Since his Kingdom's not on a major body of water, he decides to spend 0 on STRW forces. There's no aerial travel in this setting, so Paul can't spend any STR Points on STRA at all. Therefore he puts all 40 STR points into STRG, giving him a powerful army.*

Later Paul plays in a Kingdom campaign based on the kingdoms of the High Fantasy world of Ambrethel. Paul chooses Keldravia as his Kingdom. He wants to be militarily powerful, so he spends 15 Character Points to buy 60 STR Points for Keldravia. Keldravia has a strong army; it also has a small navy (ships on Lake Beralka) and an even smaller aerial military (consisting of dragon cavalry and flying wizards). With all that in mind, Paul allocates his STR Points as follows: STRG 40; STRW 15; STRA 5.

The STR Points allocated to a given unit define its effectiveness in combat by letting it provide a bonus to Strategy rolls. See page 234 for more information.

A Kingdom can choose not to allocate some (or all) of its STR Points at the start of the campaign. This represents the fact that it's not making use of its full military potential (often to save END, *i.e.*, money). If it wants to allocate those STR Points later, after the campaign begins, it may do so as a Full Phase Action (Military). Similarly, he may "decommission" some or all of his "active" STR Points as a Full Phase Action (Military) so that he doesn't have to spend END on their upkeep, then reactivate them using the same rule as allocating unused points. (The GM can restrict this based on common sense, dramatic sense, and game balance; even the most peaceful Kingdom usually has some sort of standing military.)

The size of a military unit or force does not depend on the number of STR Points spent on it. When you create a military force for a Kingdom by spending STR, you define what type and size of

MERCENARIES

At the GM's option, a Kingdom can expand its military forces not by buying more STR Points or using the *Recruitment* Military Combat Maneuver, but by hiring mercenaries.

The cost to hire mercenaries depends on the campaign setting, but typically it's 1 END per 5 STR Points (*i.e.*, the *Maintain Military* cost for active units, whether the mercenaries are in the field or not). The mercenaries work for the Kingdom for 1 Turn (12 Segments) from the time they're hired. Any END costs for Marching, attacking, defending, or the like are paid by the Kingdom.

In most cases mercenaries act on the Kingdom's Military Phases. However, extremely large, competent, or powerful mercenary units may in effect be organizations themselves and have their own MSPD, in which case they act on those Phases, not the Kingdom's.

unit it is (subject to the GM's approval, of course). Thus, you might spend 2 STR Points on a unit defined as "a thousand lightly-armed peasant levies" and another 2 STR Points on a unit defined as "50 knights." In game terms, both are equally effective (2 STR Points' worth of power). However, the GM may establish campaign ground rules governing how STR Points are spent. For example, he might rule that at least 50% of a force must be light infantry, that no more than 25% of the force can be heavy infantry, and that no more than 10% can be artillery.

MILITARY MAINTENANCE

Just having a military (*i.e.*, having a STR score greater than 0) is expensive for a Kingdom. Soldiers have to be paid, weapons researched, built, and kept in good repair, supplies purchased and distributed, facilities built and maintained. And all that costs money (END, in game terms). If a Kingdom doesn't perform at least one *Maintain Military* maneuver per Turn (see page 240), its military begins to deteriorate (*i.e.*, it loses STR Points).

DEFINING UNITS

The "default" military unit obtained with STR Points is an infantry unit: ground troops of average combat ability and relatively slow movement. To define a unit as some other type, and in the process indicate its relative strengths and weaknesses, you can apply Advantages and Limitations to the STR used to buy the STR Points allocated to a particular unit. Some examples are listed below; the GM can create others to suit his particular campaign.

The benefits obtained from applying these Advantages and Limitations typically involve something other than raw fighting power, such as the ability to move through the air or a lack of morale. If you just want to make a unit better at fighting — for example, it's an elite special forces platoon, or a bodyguard of heavily-armored knights, or a squad of space marines with special force-field belts, or the like — simply assign that unit more STR Points.

Aerial (+1): An Aerial unit travels by flying, not moving on the ground. This has several benefits. First, it ignores terrain modifiers when using the *March* Military Combat Maneuver (but not weather modifiers). (Note that an Aerial unit is not *per se* faster than a regular one; most Aerial units also have one or more levels of Fast. The GM may want to restrict how much Fast other units can buy so that Aerial units are always the fastest in the campaign.) Second, military units without either the *Ranged* or *Aerial* Advantage cannot attack an Aerial unit (unless it voluntarily lands or is otherwise forced to the ground somehow). An Aerial unit can, however, attack a ground-based unit, a Naval unit, or any other Aerial unit.

Fast (+½): This unit moves more quickly than normal. It's typically purchased by mechanized infantry units, cavalry, Aerial units, and the like. Fast units move at +25% greater speed than a regular unit when using the *March* Military Combat Maneuver. With the GM's permission, a unit can take this Advantage multiple times, gaining another +25% to March each time it's purchased (in this case, the GM may establish an upper limit of how many times a single unit can buy it).

Naval (+0): A Naval unit travels on the water, not by moving over the ground. This means it ignores terrain modifiers when using the *March* Military Combat Maneuver (but not weather modifiers). However, the GM may come up with special "terrain" modifiers to represent water and wind conditions that affect a Naval unit's movement. (Note that a Naval unit is not *per se* faster than a regular one; most Naval units also have one or more levels of Fast. The GM may want to restrict how much Fast other units can buy; see *Aerial*, above.) A Naval unit can only attack other Naval units; it can't attack standard ground units, and vice-versa. (The GM may change this if the Naval unit and ground unit are both on the coast, in which case any unit with *Ranged* can attack the Naval unit from shore or the shore from the water.)

Poor Morale (-½): A unit with this Limitation doesn't want to fight. Before any Strategy rolls to fight can be made for it, it must succeed with an EGO Roll. If it succeeds, it fights normally; if it fails, the unit breaks and runs, denying its STR Points to its Kingdom. (If it was the only unit in the battle, its side automatically loses.)

Ranged (+1): A unit with *Ranged* has the capability to attack at greater than normal range for standard units of its Kingdom. (If all units for a Kingdom have ranged weapons, such as modern infantrymen wielding assault rifles, *Ranged* isn't required; in that case all units can effectively attack each other at the same distance.) This has two effects. First, a *Ranged* unit can make attacks against an Aerial unit. Second, before battle is joined (*i.e.*, before two combatants engage in a Strategy Versus Strategy Contest with the *Attack* Military Combat Maneuver or the like), a *Ranged* unit gets one "free attack." It makes a Strategy roll at -2. For each point the roll succeeds by, reduce the STR of the target force by 5% (minimum of 1 point, unless the target only has 1 point of STR, in which case minimum of 0).

Slow (-¼): Slow is the opposite of Fast. A Slow unit moves at -25% speed when using the *March* Military Combat Maneuver. With the GM's permission, a unit can take this Advantage multiple times, losing another -25% to March each time it's purchased (maximum of -75%, or three purchases, unless the GM rules otherwise).



Stonewall (+¼): A unit with Stonewall is particularly good at defending a location. When it's defending a defined location (typically a fortress or the like, but possibly a small, easily-defended region within its Kingdom), an invader or attacker has to deal with that unit first or risk the consequences. If the attacker simply “passes by” the Stonewall unit without first engaging and defeating it, the Stonewall unit gets a free *Attack Military Combat Maneuver* against it (*i.e.*, one that doesn't require an Attack Action or cost any END, though it still results in casualties). The GM determines what constitutes “passing by” the Stonewall unit. This Advantage works best for units assigned to locations that geographically restrict an enemy's movements, such as a mountain pass or a narrow valley — if the enemy has enough room to maneuver it can simply “go around” the Stonewall unit without ever having to come close enough to qualify as “passing by” it.

The GM can create other Advantages for other types of units, if desired.

Example: *Bill creates a unit of knights for his campaign. He decides he wants 12 STR Points for his knights, so that costs 3 Character Points to begin with. But his knights have plate armor, which is much heavier than the average armor in the campaign. Bill decides to increase the unit's STR Points to 16 to reflect this (increasing its cost to 4 Character Points). Since the knights are mounted, he also thinks they need the Fast (+½) Advantage. Thus, the total cost for the unit is (4 x (1 + ½) =) 6 Character Points.*

Note that an Advantage only applies to the unit it's bought for. If that unit combines with other units to form a larger single unit, the Advantage doesn't apply to the combined force. Limitations, however, may do so — for example, if a Slow unit joins a force that has regular movement abilities, either the rest of the force leaves it behind (thus splitting the force again) or has to voluntarily decrease its pace to match the Slow unit.

PLAYER CHARACTERS AS UNITS

To give the PCs the chance to make a powerful impact on a battle, you can define them as a unit themselves. See page 224 for more information.

CHANGING THE MILITARY CATEGORIES

The GM can change how players assign STR Points to units in three ways, based on the technology available to the Kingdom, the existence of magic/paranormal powers, and similar factors.

First, he can restrict the number of categories based on the nature of the campaign and its setting. For example, in most Fantasy campaigns, and in historical campaigns taking place prior to the early 1900s (in Earth terms), there's no Air (STRA) forces at all — in that case Kingdom designers just split their STR Points between STRG and STRW. Similarly, in a campaign involving conflict and diplomacy between five landlocked duchies in the interior of a continent, there may be no need for a Water (STRW) category (unless rivers or inland seas feature in warfare prominently).

PRECISE MILITARY CATEGORIES

MILITARY — GROUND

Catapults
Cavalry, Heavy (*e.g.*, knights)
Cavalry, Horse Archers
Cavalry, Light
Infantry, Archers
Infantry, Heavy
Infantry, Light
Infantry, Mechanized
Infantry, Trolls
Infantry, Undead
Nuclear Forces, Stationary
Siege Engines (in general, of any type)

MILITARY — WATER

Aircraft Carriers
Destroyers
Nuclear Forces, Mobile
Ships, Diesel-Powered
Ships, Nuclear-Powered
Ships, Rowed
Ships, Sailed
Ships, Steam-Powered
Submarines

MILITARY — AIR

Aerial Areomancers
Balloons/Dirigibles
Biplanes
Bombers
Cavalry, Dragon
Hovercraft
Jetfighters
Nuclear Forces, Mobile

8

MILITARY — SPACE

Deep Space Forces
Near-Space Forces
Orbital Weapons
Starbases

MILITARY — MAGIC

Aerial Areomancers
Cavalry, Dragon
Infantry, Trolls
Infantry, Undead
Infantry, War-Golems
War-Wizards

Second, he can expand the number of broad categories available. Examples include:

- Space (STRS) (starships, orbital defense platforms, killer satellites...)
- Magic (STRM) (draconic cavalry, wizards' units, golem soldiers...)
- Psionic (STRP) (psi-warriors, psychic soldiers, mentalist robots...)

Third, in a game that features military action as a major element of the storyline, plot, or planned course of events, the GM may not be content with three or more broadly-defined types of military organizations. Instead he might want to have much more precisely-defined military units and types. Depending on just how detailed the GM wanted to get, he could even require players to assign STR Points into small squads of soldiers or vehicles! ("OK, my Fifth Berserker Patrol will use Attack against Randy's group of Shattered Moon Orcs.") See the accompanying sidebar for some suggested precise categories (not all of which may be available, based on the campaign and its setting).

Constitution

A Kingdom's CON represents its population — the higher its CON, the more people it has. Depending on the size of the Kingdom (as determined by its SIZE; see below), a high-CON Kingdom could be extremely overpopulated or only sparsely settled. CON tells you how easy it is to destroy by killing off its population. CON costs 2 Character Points per point.

CON is assumed to increase at the rate of 1% per year due to births, unless the GM rules otherwise. (Geography or resources within the Kingdom may restrict how much its population can grow.) A Kingdom can also increase its CON via the *Encourage Immigration* Political Combat Maneuver.

DEFINING A KINGDOM'S CON AND SIZE

A Kingdom must define how its CON and SIZE (see below) are allocated or organized. Depending upon the type of campaign, the unit of allocation could be provinces, neighborhoods, duchies, operational cells, planets, cities, or even multiple types. The Kingdom's creator simply defines the "subdivisions" of the Kingdom and notes how many points of CON and SIZE are assigned to each one. (He must also assign REC resources to them; see below.) This makes it easy to determine which parts of the Kingdom should have extra DEF bought for them, where to place economic resources (*i.e.*, points of REC), and what parts of the Kingdom are affected by the Military Combat Maneuvers of an invading enemy.

Example: *John's Kingdom of Anglia features one major city, Carlion, but is otherwise mostly farmlands, fields, and forests where people live in villages and small towns. He buys CON 10, SIZE 10 to represent the Kingdom, and then subdivides that as follows: city of Carlion, 3 CON, 3 SIZE; Barony of Wessen, 2 CON 2 SIZE; Barony of Surring, 1 CON 2 SIZE; Barony of Hampton, 2 CON 1 SIZE; Barony of Hreed, 2 CON 2 SIZE. He also buys some extra DEF for Carlion because it has large, sturdy walls.*

Size

A Kingdom's SIZE defines its size — how many square kilometers it covers. (Kingdoms that are organizations or the like, which don't possess an actual physical size, are SIZE 0.) See the accompanying Kingdom Size Table for details. SIZE costs 1 Character Point per point. As noted under CON, above, a Kingdom must "subdivide" its SIZE to indicate the relative size of various parts of it.

In many (if not most) Kingdom campaigns, players won't be able to buy whatever amount of SIZE they wish for their Kingdoms; instead, the SIZE of Kingdoms will depend on practical considerations they have no control over. For example, the GM may limit how large a Kingdom can be. If all the Kingdoms are sections of an island, each one can only be so big, after all. Similarly, if the GM pre-draws the map of the campaign setting, he should assign SIZE values to each Kingdom so that players understand the relative differences in size.

In situations like the two described above, the GM may give all Kingdoms some (or all) of their SIZE for free as a campaign ground rule. If all Kingdoms are the same size, there's probably no reason for players to pay for SIZE; if they differ in size, the GM may give each Kingdom an amount of SIZE equal to that of the smallest Kingdom for free, and require any Kingdom larger than that to pay for the remainder.

Ego

A Kingdom's EGO represents the general happiness, contentedness, and loyalty of its people (and thus to a large extent how law-abiding they are — happy people don't generally want to break the law). EGO costs 1 Character Point per point.

At the base level of 0, a Kingdom isn't very happy: it only has an EGO Roll of 9-, making it relatively easy prey for enemy propaganda and the like. At EGO 10, it has a roll of 11-, indicating a greater level of societal satisfaction and loyalty.

A Kingdom can temporarily improve its EGO via the *Bread And Circuses* Political Combat Maneuver, or permanently improve it with the *Enhance Satisfaction* Political Combat Maneuver.

KINGDOM SIZE TABLE

Cost	Length and Width (km)	Notes
0	0	
1	0.5	
2	1	
3	5	
4	10	
5	50	
6	100	
7	500	
8	1,000	
9	5,000	
10	10,000	Size of New York City
11	50,000	
12	100,000	
13	500,000	Size of the United Kingdom
14	1 million	
15	5 million	
16	10 million	Size of the United States
17	50 million	
18	100 million	
19	500 million	Size of Earth
20	1 billion	
21	5 billion	
22	10 billion	
23	50 billion	Size of Jupiter
24	100 billion	
25	500 billion	
26	1 trillion	
26	5 trillion	Size of Sol
28	10 trillion	
29	50 trillion	
30	100 trillion	
31	500 trillion	
32	1 quadrillion	
33	5 quadrillion	
34	10 quadrillion	
35	50 quadrillion	
36	100 quadrillion	
37	500 quadrillion	
38	1 quintillion	
39	5 quintillion	
40	10 quintillion	
41	50 quintillion	
42	100 quintillion	

Cost	Length and Width (km)	Notes
43	500 quintillion	Size of Earth's solar system
44	1 sextillion	
45	5 sextillion	
46	10 sextillion	
47	50 sextillion	
48	100 sextillion	
49	500 sextillion	
50	1 septillion	
51	5 septillion	
52	10 septillion	
53	50 septillion	
54	100 septillion	
55	500 septillion	
56	1 octillion	
57	5 octillion	
58	10 octillion	
59	50 octillion	
60	100 octillion	
61	500 octillion	
62	1 nonillion	
63	5 nonillion	
64	10 nonillion	
65	50 nonillion	
66	100 nonillion	
67	500 nonillion	
68	1 decillion	
69	5 decillion	
70	10 decillion	
71	50 decillion	
72	100 decillion	
73	500 decillion	
74	1 undecillion	
75	5 undecillion	Size of the Milky Way Galaxy
76	10 undecillion	
77	50 undecillion	
78	100 undecillion	
79	500 undecillion	

...and so on. For intermediate values (such as 25,000 x 25,000 km), use the next highest level on the table. The area or “shape” of a Kingdom doesn't have to be a square, of course; the Kingdom's creator can rearrange the total amount of space as he sees fit, subject to the GM's approval.



Defense

Every Kingdom has a DEF that represents its general defensive qualities — how difficult it is to invade or harm, so to speak. Most Kingdoms have fairly low DEF, 1-3 at the most. A high-DEF Kingdom is usually either small, or possesses some feature that makes it hard to assault (such as being very mountainous, or having a very small number of heavily-protected settlements). Typically the special effects for a high DEF include having lots of well-placed fortifications, terrain that makes it hard for invaders to penetrate into the Kingdom, a well-trained militia ready to repel attackers, or the like. As described in the *Kingdom Combat* section, DEF functions as a penalty to various Skill Rolls an attacker makes when using Kingdom Combat Maneuvers against a Kingdom. DEF costs 10 Character Points per point.

LIMITING DEF

Kingdoms often buy DEF with the *Partial Coverage Limitation* (page 31) to represent specific areas or regions of the Kingdom that are particularly difficult to assault. Examples might be an especially well-built and well-defended castle that guards vital farmland, or a mountain range that shields a particular province from invaders. The GM may want to restrict how much of a Kingdom can have Partial Coverage (25% of the Kingdom, at most, is a good guideline).

Partial Coverage doesn't have to depend solely on physical restrictions. Since DEF functions as a Skill Roll modifier, at the GM's option you can expand it to cover specific types of attacks or other obstacles. In this case the GM determines the value of the Limitation. Examples include:

Loyal Populace: +3 DEF (30 Active Points); Partial Coverage (only applies against Incite Revolt; -3). Total cost: 10 points.

Police State: +1 DEF (10 Active Points); Partial Coverage (only applies against Political Combat Maneuvers and Covert Operation; -2). Total cost: 3 points.

Treacherous Shoals: +1 DEF (10 Active Points); Partial Coverage (only applies against Naval attacks versus coastal targets; -1). Total cost: 5 points.

Speed

All Kingdoms have three types of SPD, defining how often they can take certain actions during the Turn defined by the GM. (Typically, Kingdom Turns are 1 Year long; see page 225.) They are: Economic SPD (ESPD); Military SPD (MSPD); and Political SPD (PSPD). ESPD can only be used for Economic actions, MSPD for Military actions, and PSPD for Political actions (usually this means Maneuvers from that category of Kingdom Combat Maneuvers).

In most cases all Kingdoms in a campaign have the same value for each category of SPD (often 4, representing one Action per Season, or 12, representing one Action per Month) for free, and cannot buy more. If the GM allows a Kingdom to buy more SPD, +1 point to any one type of SPD costs 10 Character Points per point. (Thus, to raise ESPD, MSPD, and PSPD each by 1 costs a total of 30 points). If the campaign's defined SPD is 12, any SPD bought beyond that allows the Kingdom to take multiple Actions in certain Segments. For example, SPD 15 (12 + 3) allows a Kingdom to take one Action on most Segments, but two Actions in Segments 4, 8, and 12.

Recovery

A Kingdom's REC represents its income — the revenue with which it funds diplomatic envoys, military expeditions, trade wars, infrastructure expansion, and all the other things it wants to do. At the end of each Turn (see page 225) a Kingdom adds its REC to its END (see below). If it's spent too much END (money) during the Turn, its REC may not make up the difference; if it conserves its assets, its REC just keeps making it wealthier. REC costs 3 Character Points per point.

Unless the GM permits otherwise, Kingdoms may not take Recoveries in mid-Turn the way characters can; they only get a Post-Segment 12 Recovery. The only way for a Kingdom to take a Recovery mid-Turn is to use the *Enhance Economy* Combat Maneuver.

DEFINING A KINGDOM'S REC

For every point of REC a Kingdom has, it must define a source of that REC — a "special effect" for it, if you will. This both provides some verisimilitude and makes it possible for enemies to strike at a Kingdom's resource base (see *Kingdom Combat*). The GM must approve the source of all points of REC.

A Kingdom may assign more than one of its REC points to a specific source. For example, if you're creating a mountainous Kingdom with REC 8, you could define 4 points of that REC as coming from Mining, 2 from Hunting, 1 from Agriculture, and 1 from Trade.

The GM defines which types of economic resources are appropriate for Kingdoms to have in his campaign, since this depends strongly on what the overall setting is like. A (non-exhaustive) list of possible examples includes:

Agriculture: Farming, the gathering of crops, and similar activities. If desired (or required by the GM), a Kingdom may more precisely define this resource category — for example, Agriculture (Wheat), Agriculture (Grapes), Agriculture (Corn), and so on.



Energy: Control of important sources of energy. This category is generally only appropriate for Modern and Future campaigns, but it depends on the setting; for instance, in a High Fantasy campaign, control of important sources of magical energy (“mana”) might qualify. If desired (or required by the GM), a Kingdom may more precisely define this resource category — for example, Energy (Oil), Energy (Coal), Energy (Nuclear Power Plants), Energy (Gas Giants), and so on.

Fishing: Fish, whales, crustaceans, kelp, and other resources obtained from the sea or similar large bodies of water. If desired (or required by the GM), a Kingdom may more precisely define this resource category — for example, Fishing (Whaling), Fishing (Salmon), Fishing (Cod), and so on.

Herding: Control of large herds of domesticated animals, either through a nomadic lifestyle or via ranching. If desired (or required by the GM), a Kingdom may more precisely define this resource category — for example, Herding (Cattle), Herding (Horses), Herding (Sheep), Herding (Unicorns), and so on.

Hunting: Access to large stocks of animals hunted for meat, fur, and other resources. If desired (or required by the GM), a Kingdom may more precisely define this resource category — for example, Hunting (Beaver), Hunting (Buffalo), Hunting (Dragons), and so on.

Manufacturing: A significant industrial base devoted to manufacturing needed goods appropriate for the setting. If desired (or required by the GM), a Kingdom may more precisely define this resource category — for example, Manufacturing (Pottery), Manufacturing (Steel), Manufacturing (High Technology), Manufacturing (Art), Manufacturing (Starship Drives), Manufacturing (Computers), and so on. In fact, this category is more appropriate for precise definition than any other, particularly in a campaign where some Kingdoms possess technologies that others lack.

Mining: Possession of (relatively) easily-obtained mineral wealth. If desired (or required by the GM), a Kingdom may more precisely define this resource category — for example, Mining (Gold), Mining (Gems), Mining (Tin), Mining (Salt), Mining (Blood Iron), Mining (Emeralds), and so on.

Tourism: The Kingdom has one or more attractions — sites of religious significance for pilgrims, luxury resorts, gorgeous natural scenery, legalized prostitution, major convention centers, or the like — that draw people from other places to it and prompt them to spend money. If desired (or required by the GM), a Kingdom may more precisely define this resource category — for example, Tourism (Religious), Tourism (Sybaritic), Tourism (Business), and so on.

Trade: The Kingdom conducts a particularly lively trade with other lands. It might have excellent natural ports that make it a desirable stop for traveling merchants, control the only pass through the mountains that traders can use, be located along a major trade route, have an excellent system of roads, or the like. If desired (or required by the GM), a Kingdom may more precisely define this resource category — for example, Trade (Agricultural Products), Trade (Superb Harbors), Trade (Prime Location), and so on.

Naturally, a Kingdom should only choose resources categories that are appropriate to its location, geography, and other factors. An arctic, desert, heavily forested, or mountainous Kingdom should have little (if any) income from Agriculture. One without access to the sea or some other large body of water shouldn't choose Fishing. The GM has the final say on what types of resources are appropriate for Kingdoms in his campaign.

After determining what economic resources it has, a Kingdom should assign each one to one of the “subdivisions” it defined by allocating its CON and SIZE (see above). That way it's easy to tell if a Kingdom loses access to a given resource due to invasion, natural disaster, or other factors. With the GM's permission a Kingdom can simply define a resources as “general,” meaning that it's a result of Kingdom-wide activity rather than something generally confined to one locale. A “general” resource is usually bought Protected.

VULNERABLE AND PROTECTED RESOURCES

In addition to allocating points of REC to specific sources, a Kingdom must define each source as *Vulnerable* or *Protected*. By default all sources are Vulnerable, meaning they're subject to attack or loss through various Combat Maneuvers. However, with the GM's permission, a Kingdom can spend extra Character Points to make a source of REC Protected (indicated by adding “(Prot)” to it on the character sheet). This means the source of the REC is one that's usually immune to being “attacked” via Combat Maneuvers because it's so broad, diffuse, or inchoate. Typical examples include General Prosperity and Good Harbors, neither of which are easy to disrupt or remove. This costs 3 Character Points per point of REC defined as Protected (*i.e.*, it doubles the cost per point, from 3 Character Points to 6 Character Points per point).

Endurance

For a Kingdom, END represents its treasury — the amount of assets it starts the game with. END costs 1 Character Point per point.

As described in *Combat And Adventuring* later in this chapter, when a Kingdom performs an Action, it usually has to pay an associated END cost, representing the financial cost of that Action. The Kingdom then has to use its REC to replenish what it spent — if for some reason it has a low REC (or even 0 REC), it can quickly spend itself into bankruptcy and be unable to do anything!

Unlike with END for characters, Kingdom END can, through the application of Recoveries, the use of Combat Maneuvers like Trade, or other means increase beyond its starting total. In effect the Kingdom's saving rather than spending (perhaps in anticipation of major expenses to come, like a war). For example, if a Kingdom has REC 5, END 10, does nothing for three Turns, and takes its REC each Post-Segment 12, it will have 25 END.

Typical special effects for a high Kingdom END include copious natural resources, having lots of wealthy subjects/citizens who are willing to keep the Kingdom propped up with “loans” to protect their own interests, having a particularly productive populace, and the like.

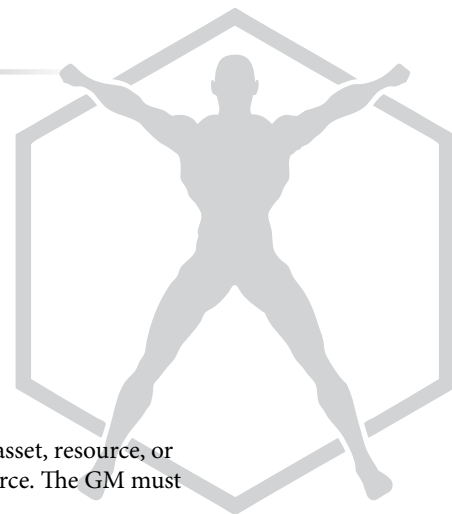
KINGDOM CHARACTERISTICS TABLE

Characteristic	Cost Per Point
Strength (STR)	¼ (1 Character Point buys 4 STR Points)
Constitution (CON)	2
Size (SIZE)	1
Ego (EGO)	1
Defense (DEF)	10
Speed (SPD)†	
ESPD	10
MSPD	10
PSPD	10
Recovery (REC)‡	3
Endurance (END)	1

† SPD is divided into Economic SPD (ESPD), Military SPD (MSPD), and Political SPD (PSPD).

‡ Kingdoms may not always be allowed to buy extra REC. With the GM's permission, Kingdoms can pay +3 Character Points per point of REC to define that point as Protected (see text).

SKILLS



Kingdoms can have Skills, though many are totally inappropriate for them. For example, Animal Handler, Fast Draw, and Two-Weapon Fighting, to name just a few, don't really have any application in the Kingdom context. Here's some information on the Skills available to Kingdoms. (Characters can also buy these Skills for use as Complementary Skills in some situations; see page 222.)

Special Rules For Kingdom Skills

EVERYKINGDOM SKILLS

Unless the GM rules otherwise, all Kingdoms start the campaign with an 8- roll in each of the following Skills for free:

- Bureaucracy
- Commerce
- Diplomacy
- Espionage
- Propaganda
- Strategy

COST

Characteristic-Based Skills for Kingdoms cost 3 Character Points for a base 11- roll, and each +1 to any Skill costs +2 Character Points. If a Kingdom wants a Background Skill (typically a KS, representing extensive knowledge of some subject), it costs 2 Character Points for an 11- roll, and each +1 costs +2 Character Points. A Kingdom may buy a Familiarity with a Skill for 1 Character Point for an 8- roll.

DEFINING A KINGDOM'S SKILL ROLL BONUSES

Each +1 to any of a Kingdom's Skills (even a Background Skill) costs 2 Character Points. For every +1 to any Skill, a Kingdom must define a source of that +1 — a "special effect" for it, if you will. This both provides some verisimilitude and makes it possible for enemies to strike at a Kingdom's resource base (see *Kingdom Combat*, below). The typical source for +1s to Skills are specific persons ("My Kingdom has a really persuasive Secretary of State, that's where it gets this +1 to

Diplomacy"); more rarely an asset, resource, or facility of some sort is the source. The GM must approve the source of all +1s.

A Kingdom may assign more than one of its +1s to a specific source. For example, a powerful, skilled minister could provide +1s to Bureaucracy, Diplomacy, and Espionage, or could provide +3 to Diplomacy.

VULNERABLE AND PROTECTED RESOURCES

In addition to allocating +1s for Skills to specific sources, a Kingdom must define each source as *Vulnerable* or *Protected*. By default all sources are Vulnerable, meaning they're subject to attack or loss through various Combat Maneuvers. However, with the GM's permission, a Kingdom can spend extra Character Points to make a source of REC Protected (indicated by adding "(Prot)" to it on the character sheet). This means the source of the +1 is one that's usually immune to being "attacked" via Combat Maneuvers because it's so broad, diffuse, or inchoate. For example, a +1 to Espionage defined as "Spymaster Theodric" is Vulnerable, because Theodric could be killed, kidnapped, brainwashed, or the like. But one defined as "a highly-skilled corps of spies" is Protected, because attacking an entire secret organization is difficult (if not impossible). This costs 1 Character Point per +1 defined as Protected (*i.e.*, it increases the cost per +1 from 2 Character Points to 3 Character Points).

SKILL MODIFIERS

Unless the GM rules otherwise, any appropriate standard Skill Roll modifiers apply in a Kingdom context. For example, a Kingdom could take extra time to get a bonus on a roll (though the amount of time depends on the GM's defined scale for SPD; see page 225).

As discussed on page 229, a Kingdom can spend extra END to improve the chances of succeeding with a Skill Roll when performing a Combat Maneuver: +1 END for each +1 to the Skill Roll. This rule also applies to Skill Rolls that aren't a part of a Combat Maneuver, unless the GM rules otherwise.

PREVENTING SKILL INFLATION

Since Skills are so important to Kingdom-level play — they're used to attack, defend, initiate trade, assassinate enemies, and much more — it's tempting for players to buy their Skills with very high rolls, or to buy lots of Skill Levels. If this is a problem in your campaign, the GM should implement campaign ground rules to resolve the issue. Some possibilities include:

- a flat cap on how high a Skill's roll can be, and/or on the number of Skill Levels a Kingdom can purchase. This isn't a satisfying solution most of the time, but may be appropriate for some games.
- impose Skill Maxima (6E1 51) on Kingdom Skills. In other words, beyond a defined point the cost of improving a Skill's roll increases, making it more expensive to keep improving the Skill. For example, maybe the GM decrees that up to 14- bonuses to Skill Rolls have the usual cost (2 Character Points for +1 to the roll, or 3 points for a Protected +1). From 15- to 18-, the cost doubles; from 19- to 22- it triples; and so on.

The Skills

BACKGROUND SKILLS

Kingdoms often buy specific Knowledge Skills, Professional Skills, or Science Skills for use as Complementary Skills with Espionage, Propaganda, and similar Skills. However, with the GM's permission, a Kingdom could buy a Background Skill to represent some capability not covered by other Skills, with the GM devising appropriate rules.

BUREAUCRACY (BUREAUCRATICS)

In a Kingdoms context, Bureaucracy (a variant form of the *Bureaucrat* Skill) represents the size, strength, robustness, and possibly efficiency of a Kingdom's bureaucracy and sociopolitical infrastructure. Even a minor Kingdom usually has some amount of bureaucracy (though a Kingdom that's an organization or cult might not). When a character tries to use his Bureaucrat to try to navigate or make use of a Kingdom's bureaucracy, the Kingdom can (if desired) use its Bureaucracy in a Skill Versus Skill Contest with him to resist the attempt.

BUREAUCRACY AS A META-SKILL

Depending on the nature of your Kingdoms and their campaign, you may want to consider using Bureaucracy in some additional ways as a "meta-Skill" that affects other Kingdom Skills. This could represent, among other things, a society so bureaucratized or regimented that getting anything done can prove difficult. Some possibilities include:

- Bureaucracy serves as a "Skill cap" — a Kingdom can't have any Skill with a higher roll than its Bureaucracy. (Alternately, the Bureaucracy roll establishes a Skill Maxima beyond which it costs extra to increase a Skill's roll.)
- Anytime a Kingdom attempts an Action involving any Skill Roll, it *also* has to succeed with an unmodified Bureaucracy roll. If the Bureaucracy roll fails, the entire Action fails; if the roll succeeds the Action proceeds as planned (but may still fail based on the results of the standard Skill Roll).

COMBAT SKILL LEVELS

Kingdoms do not buy Combat Skill Levels, since they don't have CVs; they buy Skill Levels with appropriate Skill (see below), more STR Points, more DEF, or the like to represent military ability.

COMMERCE (TRADING)

In a Kingdom context, Commerce (a variant form of the *Trading* Skill) represents the general efficiency of a Kingdom's economy, and its ability to project economic power abroad. It's used primarily when engaging in Economic Combat Maneuvers with other Kingdoms, such as trying to open trade relations, reduce a trade deficit, or take an adversary's economic resources (see page 229).

COMMUNICATIONS (SYSTEMS OPERATION)

In a Kingdom context, Communications (a variant form of the *Systems Operation* Skill) represents the effectiveness and robustness of a Kingdom's communications systems, its ability to "get its message across," and the quality of its media in general. It primarily serves as a Complementary Skill to Propaganda and other Skills, but the GM may require Kingdoms to use it by itself in situations where transmitting information is difficult or dangerous.

CRYPTOGRAPHY

A Kingdom sometimes buys Cryptography to represent the strength of its encoding and decoding technology, the skill of its cryptanalysts, and so forth. It primarily serves as a Complementary Skill to Espionage and other Skills, but the GM may require Kingdoms to use it by itself in situations where making or breaking codes is a crucial plot point.

DIPLOMACY (PERSUASION)

In a Kingdom context, Diplomacy (a variant form of the *Persuasion* Skill) represents a Kingdom's ability to maneuver politically, promote or enforce its political will abroad, and so forth. It's used primarily when engaging in Political Combat Maneuvers with other Kingdoms, such as trying to negotiate a treaty, acquire military support, or form an alliance (see page 244).

ESPIONAGE

In a Kingdom context, Espionage (an Intellect Skill that in some ways combines aspects of personal Skills such as Bugging, Interrogation, and Streetwise) represents a Kingdom's ability to obtain information secretly, engage in covert missions such as assassination and sabotage, and conduct counterintelligence operations. It's used primarily as part of various types of Kingdom Combat Maneuvers.

MEDICINE (PARAMEDICS)

In a Kingdom context, Medicine (a variant form of the *Paramedics* Skill) represents that a Kingdom has advanced knowledge of medical procedures and a well-developed hospital system. When it suffers casualties in war (see page 235) it can make a roll to reduce the amount of losses it suffers: for every full 3 points the roll succeeds by, reduce the casualties by 1% (but never below 1% minimum).

PROPAGANDA (ORATORY)

In a Kingdom context, Propaganda (a variant form of the *Oratory* Skill) represents a Kingdom's ability to make its "message" (*i.e.*, the information it wants people to have) known. It's used primarily when engaging in Political Combat Maneuvers with other Kingdoms, such as trying to persuade a Kingdom's people to revolt (or persuade one's own people to remain loyal or fight harder).

SKILL LEVELS

Typically Kingdoms do not buy Skill Levels, they buy bonuses to the rolls of their Skills individually, as described above. If the GM permits Kingdoms to buy Skill Levels, he usually restricts them to 3- and 4-point Skill Levels; 6-point Levels aren't applicable, and 10- and 12-point Levels are rare (if permitted at all).

DEFINING A KINGDOM'S SKILL LEVELS

A Kingdom must define a source of each Skill Level it buys — a "special effect" for it, if you will. This both provides some verisimilitude and makes it possible for enemies to strike at a Kingdom's resource base (see *Kingdom Combat*, below). The typical source for a Skill Level are specific persons ("My Kingdom's Minister of Communications is so skillful that my Kingdom gets a +1 to Communications, Espionage, and Propaganda"); more rarely an asset, resource, or facility of some sort is the source. The GM must approve the source of all Skill Levels.

A Kingdom may assign more than one of its +1s to a specific source. For example, a powerful, skilled minister could provide +2 with Bureaucracy, Diplomacy, and Espionage.

VULNERABLE AND PROTECTED SKILL LEVELS

For every Skill Level a Kingdom has, a Kingdom must define the source of that Skill Level as *Vulnerable* or *Protected*. By default all sources are *Vulnerable*, meaning they're subject to attack or loss through various Combat Maneuvers. However, with the GM's permission, a Kingdom can spend extra Character Points to make a source of a Skill Level *Protected* (indicated by adding "(Prot)" to it on the character sheet). This means the source of the Skill Level is one that's usually immune to being "attacked" via Combat Maneuvers because it's so broad, diffuse, or inchoate. For example, a +1 to Commerce, Diplomacy, and Espionage defined as "Secretary of State Wilson" is *Vulnerable*, because Wilson could be killed, kidnapped, brainwashed, or the like. But one defined as "a highly-skilled diplomatic corps" is *Protected*, because attacking an entire governmental organization is difficult (if not impossible). This doubles the cost of the Skill Level (it makes 3-point Levels cost 6 points, 4-point Levels cost 8 points, and so on).

STRATEGY (TACTICS)

In a Kingdom context, Strategy (a variant form of the *Tactics* Skill) represents a Kingdom's ability to project military power, fight military campaigns, and maneuver militarily. It's used primarily when engaging in Military Combat Maneuvers with other Kingdoms, such as starting a war, defending against an invader, or putting down a rebellion.

In most cases, any NPC who provides a bonus to Strategy (either directly, or via Skill Levels) has to be present at a battle, siege, or other Military situation to provide the bonus. This may expose him to death or capture in the event the battle turns against his side. Having the NPC present may be less necessary in Modern and Science Fiction situations where rapid communications are possible.



OTHER GAME ELEMENTS

Other *HERO System* elements appropriate for Kingdoms include:

PERKS

Generally speaking Kingdoms don't buy Perks, but there are a few applicable ones.

FAVOR

Kingdoms can obtain Favors from (or grant them to) other Kingdoms. This tends to be more reliable than standard Diplomacy-based negotiation, since if a Kingdom succeeds with its Favor roll the other Kingdom's compelled to act (within reason — it can't be made to do things that are strongly against its interests).

POSITIVE REPUTATION

A Kingdom can buy the *Positive Reputation* Perk to reflect how it's viewed positively by other Kingdoms. For example, a Kingdom could have a reputation for belligerence and military power, for always abiding by its treaties and agreements, for or the like. Kingdom Positive Reputation only applies to appropriate Skill Rolls (typically Propaganda, Diplomacy, and the like), since Kingdoms don't make Presence Attacks. The GM determines how widely known a Kingdom's reputation must be, depending on the nature of the campaign.

NEW PERK: TECHNOLOGICAL SUPERIORITY

In most Kingdom campaigns, all of the Kingdoms use more or less the same type and "quality" of technology. For example, in a Fantasy-era Kingdom campaign, all the Kingdoms have horses, knights in plate armor, wizards of a similar level of accomplishment, and so on. In a modern-day game, they all have rifle-equipped infantry, tanks, jet fighters, and the like.

However, technological parity isn't *always* the case. With the GM's permission a Kingdom can buy the Perk *Technological Superiority* to indicate that it possesses a technology other Kingdoms do not — a technology that gives it some sort of "edge" as it interacts with other Kingdoms.

In game terms, Technological Superiority doesn't have its own distinct cost. Although defined as a Perk, it's really just the special effect for various other game elements — primarily Skill Levels or bonuses to individual Skill Rolls, but possibly other things such as extra DEF. You buy it as those other elements (with Power Modifiers if appropriate), but list it in the *Perks* section of the character sheet. All the standard rules for the other game element apply. In particular, Skill Levels or other elements that have to be defined as Vulnerable or Protected (see above) usually must be bought as Protected cost when purchased as Technological Superiority. Unless Technological Superiority depends on a single prototype device, the work of one inventor no one else can comprehend, or the like, it's difficult (if not impossible) to take away from a Kingdom once it has it.

The GM has the final say on when Technological Superiority applies. In particular he shouldn't allow Superiority to factor into a situation when no actual "superiority" exists. For example, if two Kingdoms in the campaign have bought Technological Superiority defined as "building faster, more maneuverable military planes," then they may not receive the Skill Levels from them when fighting each other (since they have no advantage, relative to one another). They only receive the bonus when fighting a Kingdom that lacks that technology.

Here are some examples of Technological Superiority:

Aircraft Carriers: The Kingdom has aircraft carriers, giving it a major boost in offensive power compared to other Kingdoms. Bought as: +2 to Strategy (Prot) (6 Active Points); Only For Military Combat Maneuvers Involving *Aerial Units* Attacking Naval Or Coastal Targets (-2). Total cost: 2 points.

Better Hyperdrives I: The Kingdom's superior hyperdrive technology allows it to get goods to market faster and find bargains more easily. Bought as: +2 to Commerce (Prot) (6 Active Points); Only With *Trade* Economic Combat Maneuver (-1). Total cost: 3 points.



Better Hyperdrives II: The Kingdom's superior hyperdrive technology allows it to move military vessels and personnel around more quickly than other Kingdoms can, which gives it a significant strategic and tactical advantage. Bought as: the *Fast Advantage* for all appropriate military units.

Better Hyperdrives III: The Kingdom's superior hyperdrive technology allows it to move military vessels and personnel around more quickly than other Kingdoms can, which gives it a significant strategic and tactical advantage. Bought as: +2 to Strategy (Prot). Total cost: 6 points.

The Secrets Of Sorcery: The Kingdom's wizards know arcane secrets no other wizards possess, which gives them an advantage in many situations. Bought as: +2 to Strategy (Prot) (6 Active Points); Only For Military Combat Maneuvers Involving Specific Wizards' Unit (-2). Total cost: 2 points.

Superior Listening Devices: The Kingdom has better bugs, eavesdropping devices, and communications systems, so it has an easier time learning things covertly. Bought as: +2 to Espionage (Prot). Total cost: 6 points.

Superior Technology: The Kingdom's technology is superior in every way to that of other Kingdoms in the campaign. Bought as: +2 Overall (Prot). Total cost: 48 points.

TALENTS

Kingdoms typically do not buy Talents. However, a GM could create some Kingdom-only Talents specific to his campaign as a way of emphasizing certain "special effects" appropriate to his campaign. For example, a *Long Growing Season* Talent could provide +1 REC. The limited forms of DEF discussed on page 214 could also be considered Talents, if desired.

POWERS

Kingdoms typically do not buy Powers. However, the GM may use Powers to represent the interaction between Kingdoms and personal Player Characters, as discussed on page 223.

COMPLICATIONS

Kingdoms typically don't have Complications — any negative condition they suffer from is represented by not buying something, not by taking a Complication. For example, instead of taking *Physical Complication: Poor Soil*, a Kingdom simply doesn't buy its END or REC up as much as it otherwise might. However, the GM might consider letting a Kingdom take a Complication, if it seems appropriate. The *Negative Reputation* Complication, for example, could be used to indicate that a Kingdom's regarded as untrustworthy or prone to starting wars.

An organization Kingdom that requires some specific resource to function at peak efficiency might have a Dependence. A gigantic space station that can be utterly obliterated if an attacker gets lucky and hits a womp rat-sized thermal exhaust port with a proton torpedo might represent that weakness as a massive Susceptibility.

If the GM permits Kingdom Complications, the Character Point value of a Complication adds to the total Character Points each Kingdom gets “for free” at the start of the campaign.

CHARACTER AND KINGDOM INTERACTION

One of the most useful features of the Kingdom creation and combat rules is that you can intertwine them with the regular *HERO System* rules for personal-level characters. This allows you to determine how the PCs’ actions affect a Kingdom... or how a Kingdom can affect them.

Here are some notes on specific *HERO System* abilities that may come into play in campaigns that mix Kingdom-level and personal-level characters. But given the abstraction and potential breadth of Kingdoms and Kingdom campaigns, this section is far from the last word on the matter. The GM should be prepared to rule creatively on other ways that PCs try to interact with Kingdoms, keeping common sense, dramatic sense, and game balance in mind.

Skills

The Skills listed in the *HERO System* rulebook are mainly intended for character-to-character interaction, which is why the Skill rules above describe some special Skills specifically for Kingdom-to-Kingdom interaction. However, it’s possible that some players will want to create PCs who are particularly adept at ruling and running Kingdoms. Any PC could potentially become king, but some PCs have the special training or natural talent that makes them really good at that job.

There are three ways you can simulate this. The first, and usually the best, is to allow PCs to buy Kingdom Skills (like Bureaucracy, Commerce, and Strategy) for use as Complementary Skills to aid Kingdom actions (see page 226). That represents a serious commitment to developing the knowledge and abilities necessary to running a Kingdom, and in game terms can provide some significant bonuses.

Second, as an alternative to having PCs buy so many Skills that are only useful in one situation, the GM can condense them all into one Intellect Skill, *Rulership*. A character can use Rulership for any Kingdom-related Complementary Skill Roll. The downside to this is that it’s cheap enough that most (if not all) PCs can easily afford it, which may defeat the purpose of Kingdom-oriented characters being able to set themselves apart. (Alternately, the GM could create three forms of Rulership — one each for Economic, Military, and Political matters.)

Third, in campaigns that don’t involve as much Kingdom-level play, the GM can simply allow characters to use an appropriate personal-level Skill to make Complementary Rolls for their Kingdoms: Bureaucrats for Bureaucracy, Trading for Commerce, Tactics for Strategy, and so forth. The PCs might even be allowed to buy those Skills, or bonuses to those Skills, with the Limitation *Only For Kingdom Complementary Rolls* (-1), so that they don’t have to pay as much for a Skill they only intend to use one way.

Perks

Several Perks have implications for the Kingdom rules.

BASE

Even if a PC is the leader (or controller) of a Kingdom, he does not have to buy the Kingdom as a Base. Kingdoms are bought using the Kingdom creation rules, as described earlier in this chapter; the points used to create one are separate from the Character Points a player builds a character with. A PC can buy his Kingdom as a Base if he wants to, but there’s no real reason to and he gets no special benefit for doing so.

A PC could have a Base of his own (such as a castle or secret headquarters) that constitutes a Kingdom “asset” (for example, it’s the biggest or most defensible castle in the Kingdom). In that case, he should be sure to include the Base when creating his Kingdom (for example, a highly-defensible castle might be bought as some extra DEF for one part of the realm). This does *not* insulate the Base from the effects of Kingdom actions — it’s still subject to being Attacked, Razed, or the like. However, it’s often appropriate for the GM to impose a small penalty (such as -1 or -2) on the roll made to harm the Base, on the grounds that the PC/Kingdom tend to protect it better due to its importance. Additionally, if a PC’s Base is removed from play due to a Kingdom action that was largely beyond the PC’s control, at the very least the GM should return the Character Points to the PC so he can buy a new Base... albeit after an appropriate period of time has passed or other campaign events make that possible.

FOLLOWERS

It's possible that a PC may want to buy as Followers people who define Skill bonuses, military units, or the like in the Kingdom context. For example, the king (a PC) might buy as Followers his bodyguard of 20 elite knights, who are defined as a 4 STR Point military unit for Kingdom warfare; or he might buy as a single Follower his good friend Prince Henrik, who serves as his Minister of Trade (and is defined as providing a +2 Commerce bonus for the Kingdom).

Buying a Kingdom "asset" as a Follower does *not* insulate that Follower from the effects of Kingdom actions — he's still subject to Assassination or Kidnapping, can still be slain in battle, and so forth. (One exception: unless the GM rules otherwise, a Follower cannot be made to turn traitor via the *Treachery* Political Combat Maneuver.) However, it's often appropriate for the GM to impose a small penalty (such as -1 or -2) on the roll made to harm the Follower, on the grounds that the PC/Kingdom tend to watch over him more protectively due to his particular importance. Additionally, if a PC's Follower is removed from play due to a Kingdom action that was largely beyond the PC's control, at the very least the GM should return the Character Points to the PC so he can buy a new Follower... albeit after an appropriate period of time has passed or other campaign events make that possible.

FRINGE BENEFIT: HEAD OF STATE

In a campaign where all the PCs lead Kingdoms, generally the GM shouldn't require them to buy this Perk (or similar Fringe Benefits) — think of it as a sort of "Everyman Perk" for the campaign. If some PCs rule Kingdoms and some do not (either because they have no Kingdoms at all, or because they control a Kingdom from "behind the throne"), the GM may require PCs who overtly control their realms to buy this Perk (perhaps at a reduced cost).

Alternately, the GM can require all PCs to buy Head Of State (or a similar Fringe Benefit, based on rank and position), but rule that the points spent on the Perk have the same effect as the *Improved Kingdom* Perk described below: they provide more "Kingdom Points" to create the Kingdom with.

NEW PERK: IMPROVED KINGDOM

At the GM's option, a PC can have a better Kingdom than other PCs by spending some of his Character Points. For each 1 Character Points spent on this Perk, the character gets 5 "Kingdom Points" to spend to create his Kingdom. (The GM can vary the cost of the Perk if necessary to maintain game balance or fit the "feel" of the campaign.)

Talents

DANGER SENSE

The "general area" form of Danger Sense is typically sufficient for a character to perceive dangers anywhere in his Kingdom (though the GM might increase the cost a little, say to +12 or +13 Character Points, for particularly large Kingdoms). If a character's Danger Sense *only* perceives Kingdom-level threats and not personal dangers, he can buy the Danger Sense with a -1 Limitation. This is one way to represent the classic "the king is the land, the land is the king" abilities found in many legends and Fantasy stories.

Powers

Typically characters do not buy Powers for the purpose of affecting a Kingdom directly; that tends to make PCs far too powerful individually in a Kingdom context (especially since they can already be disproportionately effective via the Complementary Skill rules on page 226). However, the GM can permit this if desired; typically any abilities designed solely to work on a Kingdom level will have a Limitation such as *Only Affects Kingdom STR* or the like (the value depends, of course, on how often Kingdom-level events come into play and allow the use of the power).

Beyond that, the GM can use Powers to determine the game effects of interactions between PC-level play and Kingdom-level play. Adjustment Powers such as Aid and Drain are particularly useful for this.

Here are some examples:

- the PCs are a squad of "special forces" soldiers who successfully infiltrate enemy territory (an enemy Kingdom) and sabotage one of the enemy's biggest munitions factories. The GM represents this as a Drain STR 1d6 applied against the Kingdom; the return rate for the Drained points represents the time needed to rebuild the factory. (The GM could allow the Kingdom to rebuild more quickly using a Combat Maneuver, if desired.)
- the PCs are a typical group of Fantasy adventurers when they're not busy running their respective Kingdoms (small "duchies" within a large empire). During one of their quests they battle and slay a dragon. They bring back its hoard, which the GM defines as an Aid END 2d6. They roll the Aid dice and split the results among their Kingdoms (and naturally they'll spend that END first so it doesn't fade away before they can use it).

- after a subterfuge-based mission and a harrowing chase, the PCs use their starship's weapons to utterly obliterate the Galactic Empire's communications hub — not only do they destroy all the systems needed to maintain the Empire's communications systems in that region, but lingering radiation from the attack creates static over many cubic parsecs that independent communications devices have trouble “punching through.” Depending on the severity of the effect, the GM could define this as a Change Environment that imposes a penalty on the Kingdom's *Communications* Skill (and perhaps other Skills involving broadcasts) or as a Darkness to Radio Group Senses that affects the Kingdom.
- the PCs steal technological secrets from an enemy Kingdom, thus depriving that Kingdom of its *Technological Superiority* Perk. The GM represents this as a Dispel 1d6 against that Perk.
- the PCs unleash a horrific plague on an enemy Kingdom, significantly reducing its population. The GM determines the results as a Killing Attack 2d6, applying the total on the dice against the Kingdom's CON as if it were BODY.
- Doctor Destroyer activates his orbiting mind control satellites, turning them first against the United States (a Kingdom). The GM defines this as Mind Control 10d6, and rules that for each point by which the Effect Roll exceeds the US's EGO the evil mastermind has brought 5% of the American population under his mental domination.
- Kal-Turak the Ravager has a spell that slaughters enormous numbers of enemy troops, then raises them as zombies in his service. The GM defines this as Drain STR Linked with an Aid STR (thus in effect taking STR from an enemy and providing it to Kal-Turak's Kingdom). Both parts of the power have Delayed Return Rate to extend the return period for a very long time (representing “new recruits” for the victim and “zombies finally decay into useless parts” for Kal-Turak).

PLAYER CHARACTERS AS UNITS

Similarly, if you want the PCs to have a major impact on a battle, consider them a unit and assign them a “STR Point” value to represent their effectiveness. To determine their STR Point value, the GM should consider not only how powerful they are in comparison to the average soldier, but how important he wants them to be *dramatically*. The PCs may be grievously outnumbered, but they're the *heroes*. It's not at all uncommon in myth or adventure fiction for a single hero, or a small band of heroes, to turn the tide of entire battles.

If the PC “unit” gets damaged or destroyed during combat, the PCs aren't dead. They've simply been knocked unconscious, captured, or otherwise rendered unable to fight effectively. The GM should determine what happens — a PC “defeat” in Kingdom combat could be the start of a great personal-level story arc!

KINGDOM COMBAT



When Kingdoms interact with one another, whether in a friendly or hostile fashion, the Kingdom Combat rules are used to resolve what happens. Combat between Kingdoms is similar to fights between personal PCs in some ways, but very different in others.

URNS AND SPEED

The GM defines the length of a Turn for his campaign. Typical examples include One Week, One Month, or One Year. The shorter the Turn period, the more rapidly events progress and the more detail the campaign involves. On the other hand, a campaign with a long time-frame — such as each Segment equaling One Decade or One Century — could be played out to describe the broad sweep of history leading up to the current day in the campaign setting.

After determining the length of the Turn, the GM divides it into 12 Segments of equal length. For a Turn of One Year, each Segment represents one month of time; for a Turn of One Month, each Segment is 2.5 days. (The GM may find it convenient to round off these figures to some more meaningful number, like 2 days instead of 2.5 days, and just assume the “leftover” time is spent on non-game-related events.)

As discussed on page 214, Kingdoms have three types of SPD: Economic (ESPD); Military (MSPD); and Political (SPD). ESPD indicates when a Kingdom may perform Economic Actions (primarily the use of Economic Combat Maneuvers); MSPD and PSPD govern Military and Political actions, respectively. If two or three categories of SPD indicate Phases in the same Segments, the Kingdom gets to take all the Actions allowed it; it's not restricted to just one Action.

Example: *Brad's kingdom of Farlothian has ESPD 6, MSPD 8, and PSPD 4. That means Farlothian has Economic Phases in Segments 2, 4, 6, 8, 10, and 12; Military Phases in Segments 2, 4, 5, 6, 8, 9, 11, and 12; and Political Phases in Segments 3, 6, 9, and 12. Thus, in Segments 2, 4, and 8 he gets both an Economic and a Military Phase; in Segment 9 he gets a Military and a Political Phase; and in Segments 6 and 12 he gets Phases in all three categories.*

The large number of Phases in a Kingdom campaign tends to slow down play relative to personal-character play. To reduce delays, players should try to plan their Phases in advance as much as possible so they can act quickly when one of their Phases comes up in the rotation. The GM may also want to restrict how much SPD Kingdoms can buy, or require them to all have the same SPD.

WHO ACTS FIRST

Since Kingdoms don't have DEX, you determine who acts first in a Phase based on the relevant Skill Rolls: Commerce for ESPD; Strategy for MSPD; and Bureaucracy for PSPD. If two or more Kingdoms have tied rolls, resolve the issue by having each one make his roll, with the one that makes it by the most going first. The GM can either allow one roll to govern every Turn in the combat, or have the participants roll separately for each Turn.

ACTIONS

Kingdoms then take their Phases on the appropriate Segments as indicated by the Speed Chart. The Phases from each type of SPD may only be used for that type of Action; for example, a character can't use a Political Phase to perform an *Attack Maneuver*, since that's a Military Combat Maneuver — he can only use Political Combat Maneuvers and perform other Actions the GM regards as primarily “political” in nature.

Unless the GM rules otherwise, Kingdoms may Hold their Actions, Abort to defensive Actions, and the like. Each Action allows for a Full Phase Action, so a Kingdom could perform two Half Phase Actions if desired. However, any Kingdom Combat Maneuver that the GM regards as a direct “attack” on another Kingdom constitutes an Attack Action, thus ending the Kingdom's Phase for that category of Action. Kingdom Combat Maneuvers that usually qualify as “attacks” include Destroy Economic Resource, Impair Commerce, any Military Combat Maneuver (except Fortify, Gather Supplies [but not Pillage], March, and Recruitment), Assassination, Impair Politics, Incite Revolt, Quell Revolt, and Treachery.





PLAYER CHARACTER INVOLVEMENT

In campaigns that mix Kingdom-level events and pharacter-level events, the PCs are likely to take part in Kingdom actions such as military attacks, treaty negotiations, and the like. In that situation, the GM can allow a PC to make a Complementary Skill Roll with an appropriate Skill to aid the Kingdom-level Action — in effect, PCs are so good at what they do that having one present at a Kingdom Action improves that Action's chances of success. (At the GM's option, alternately or in addition having a PC present might reduce some Full Phase Kingdom Actions to Half Phase Actions.)

In a campaign that focuses as much on Kingdom play as PC-level play, the Skills that PCs should buy to do this are the Kingdom Skills, as described on page 222: Bureaucracy; Commerce; Espionage; Strategy; and so forth. (Alternately, the GM may require PCs to buy the *Rulership* Skill, which is described on the same page.)

A PC can only make a Complementary Skill Roll for a single Skill Roll per Phase (even if more than one roll is made with regard to events occurring wherever he happens to be). Furthermore, unless the GM permits otherwise, a PC can only do this once per Kingdom Turn.

The GM can also extend this rule to prominent named NPCs if desired. Typically any such NPC must be one who's identified as the Vulnerable source of a Skill Roll +1, a Skill Level, or the like.

REPEATED ACTIONS

It's possible for a Kingdom to perform the same Half Phase Action twice in a Phase (as long as it's not an Attack Action or Full Phase Action, of course). This occurs when the first attempt fails and the Kingdom wants to try again, or the Kingdom derives some benefit from repeated use of the same Combat Maneuver. In either case, the second attempt using the same Kingdom Combat Maneuver in the same Phase incurs a -2 penalty to the roll.

EVALUATING THE OPPOSITION

In general, a Kingdom that wants to engage another Kingdom in some way (whether as adversaries or allies) is assumed to possess at least *some* knowledge of the other Kingdom's capabilities, though not necessarily detailed knowledge. This is particularly true of Military conflicts. Once two forces are close enough to engage, they're close enough to evaluate each others' strengths, size, and the like — "Better shore up the defense on our flank, General; it looks like they outnumber us at least three to one." However, the GM could keep that information hidden if he wished, and Kingdoms can use the *Conceal Intelligence* Maneuver to hide facts about themselves. A Kingdom that wants to learn detailed information about another Kingdom, or to overcome *Conceal Intelligence*, should use the *Gather Intelligence* Maneuver.

RANDOM EVENTS

Since Kingdom-level play is both more abstract than, and not as precise as, personal-level play, some GMs may find it desirable to inject random elements into the course of events. This represents the fact that many things — the weather, the conduct of NPC Kingdoms, scientific research, the economy — are neither entirely predictable nor significantly controllable by any one Kingdom.

In many cases the easiest way for a GM to inject a random event into a Kingdom campaign is simply to decide what he wants to happen, inform the players, and then let the players deal with the consequences. If the GM prefers, he can use the accompanying table to roll an event up totally at random. First roll for the type of event (Economic, Military, or Political), then the general nature of the event (Positive or Negative), then the severity (Minor, Major, Severe, Extreme). “Positive” or “Negative” indicates how the event affects the Kingdom(s) primarily involved; an event that’s Negative for one Kingdom might actually have a positive effect on, or be viewed positively by, that Kingdom’s enemies.

Typically random events are rolled once per Turn (at most), but the GM can roll them more or less frequently if he prefers. (The longer the length of a Turn, the more often the GM may want to inject them into the game.) The GM determines which Kingdom(s) are primarily involved in a random event, either by picking them or by randomly rolling them on a table of his own creation.

DEFENSE

Every Kingdom has a *Defense* (DEF) Characteristic (though it may have DEF 0). As noted on page 214, most Kingdoms have a relatively low DEF (1-3), though specific areas may have higher DEF. DEF plays an important roll in Kingdom Combat, since it makes it harder for an attacker to harm his target. Every point of DEF is a -1 penalty that applies to any Combat Maneuver the GM regards as involving the application of force, the need to penetrate a Kingdom’s security, or the like. This includes almost all Military Combat Maneuvers, Assassination, and Gather Intelligence.

SUBSTITUTING DIFFERENT SKILLS

Most of the Combat Maneuvers described below involve a Skill Roll (ordinary or Contested) with a specific, listed Skill. Given the many potential ways a Kingdom could try to achieve a particular goal, the GM should consider substituting other Skills if appropriate.

For example, the *Impair Commerce* Economic Combat Maneuver normally involves a Commerce Versus Commerce Contest. But suppose the attacker’s declared method of impairing his target’s commerce is to impose a naval blockade on the enemy’s ports to choke off trade. In that case, the GM might change the Contest to Strategy (representing the attacker’s use of military forces) Versus Espionage (representing the target’s efforts to sneak past the blockade).

KINGDOM RANDOM EVENTS

Roll (1d6) Type Of Event

1-2	Economic
3-4	Military
5-6	Political

Roll (1d6) Nature Of Event

1-3	Positive for Kingdom(s) primarily involved
4-6	Negative for Kingdom(s) primarily involved

Roll (2d6) Severity Of Positive Event

2-5	Minor: a temporary new source of wealth is discovered, granting +5% REC for the next Post-Segment 12 Recovery only; recent increases in the birthrate or immigration rate add $+\frac{1}{2}d6-1$ (minimum of 1) point of CON
6-8	Major: a temporary new source of wealth is discovered, granting +10% REC for the next Post-Segment 12 Recovery only; a joyous event grants +1d6 EGO for the next 12 Segments (and +1 point of that is a permanent increase); the Kingdom finds itself advantaged (+1 to all Skill Rolls related to events in this sphere of action for this Turn)
9-11	Severe: a temporary new source of wealth is discovered, granting +20% REC for the next Post-Segment 12 Recovery only; the Kingdom finds itself highly advantaged (+2 to all Skill Rolls related to events in this sphere of action for this Turn)
12	Extreme: a temporary new source of wealth is discovered, granting +30% REC for the next Post-Segment 12 Recovery only; the Kingdom finds itself extremely advantaged (+3 to all Skill Rolls related to events in this sphere of action for this Turn)

Roll (2d6) Severity Of Negative Event

2-5	Minor: a natural disaster reduces the Kingdom’s REC for the next Post-Segment 12 Recovery by 10%; the Kingdom loses $\frac{1}{2}d6$ END to corruption, crime, or other factors; a natural disaster reduces the Kingdom’s CON by 1 point permanently
6-8	Major: a natural disaster reduces the Kingdom’s REC for the next Post-Segment 12 Recovery by 20% or more; a military-related accident causes the permanent loss of $\frac{1}{2}d6$ STR Points; the Kingdom loses 1d6 END to corruption, crime, or other factors; the Kingdom finds itself disadvantaged (-1 to all Skill Rolls related to events in this sphere of action for this Turn); a natural disaster reduces the Kingdom’s CON by $\frac{1}{2}d6$ points permanently
9-11	Severe: a natural disaster reduces the Kingdom’s REC for the next Post-Segment 12 Recovery by 30% or more; a military-related accident causes the permanent loss of 1d6 STR Points; the Kingdom loses 2d6 END to corruption, crime, or other factors; the Kingdom finds itself severely disadvantaged (-2 to all Skill Rolls related to events in this sphere of action for this Turn); a plague reduces the Kingdom’s CON by 1d6+1 points (or more) permanently
12	Extreme: a major natural disaster reduces the Kingdom’s REC for the next Post-Segment 12 Recovery by 40% or more; a military-related accident causes the permanent loss of 2d6 STR Points; an NPC Kingdom attacks; the Kingdom loses 3d6 END to corruption, crime, or other factors; the Kingdom finds itself extremely disadvantaged (-3 to all Skill Rolls related to events in this sphere of action for this Turn); a plague reduces the Kingdom’s CON by 2d6+1 points (or more) permanently; an important person (someone who provides a Skill bonus or Skill Level) dies unexpectedly

KINGDOM COMBAT MANEUVERS TABLE

ECONOMIC COMBAT MANEUVERS

Maneuver	Phase	DEF?	STR?	END	Notes/Effects
Destroy Economic Resource	½	N	N	2	Roll varies; DEF/MIL may apply
Develop Economic Resource	1	N	N	Spec	Bureaucracy to create a new source of REC
Economic Enhancement	1	N	N	3	Bureaucracy to gain permanent +1 to any Economics Skill
Economic Recovery	Spec	N	N	1	Commerce to “take an Economic Recovery” in mid-Turn
Foreign Aid	½	N	N	1	Bureaucracy to give END to another Kingdom
Impair Commerce	½	N	N	2	Commerce vs. Commerce to hinder enemy’s Economic conduct
Improve Economic Resource	1	N	N	Spec	Commerce to enhance resource
Rebuild Economic Resource	1	N	N	Spec	Commerce to repair damaged resource
Trade	½	N	N	1	Commerce to gain increased REC from a resource for next Recovery

MILITARY COMBAT MANEUVERS

Maneuver	Phase	DEF?	STR?	END	Notes/Effects
Attack	½	Y	Y	Spec	Strategy vs. Strategy
Covert Operation	½	Y	N	2	Espionage vs. Espionage for Kidnapping or Sabotage
Enhance Defense	1	N	N	Spec	Strategy to increase DEF temporarily
Fortify	1	N	N	Spec	Bureaucracy to permanently increase an area’s DEF by 1
Gather Supplies	1	N	N	0	Commerce to gather supplies; can also Pillage
Impair Military	½	Y	Y	2	Strategy vs. Strategy to hinder enemy’s Military conduct
Long-Distance Attack	1	Y	N	Spec	Strategy to attack from a long distance away
Maintain Military	1	N	N	Spec	Pay 10-20% of points of MIL to keep military in good shape
March	½	N	N	Spec	Move military units
Military Enhancement	1	N	N	3	Bureaucracy to gain permanent +1 to any Military Skill
Raze	1	N	N	2	Strategy to destroy conquered/occupied enemy territory
Recruitment	1	N	N	2	Propaganda (modified by EGO Roll) to obtain new STR Points
Retreat	1	Y	Y	Spec	Defensive action to move away from a contested area without fighting
Slaughter	½	Y	Y	Spec	Massacre enemy civilian population

POLITICAL COMBAT MANEUVERS

Maneuver	Phase	DEF?	STR?	END	Notes/Effects
Assassination	½	Y	N	1	Espionage vs. Espionage to kill specific NPC target
Bread And Circuses	1	N	N	1	Propaganda roll to gain +½d6 EGO for 1d6+1 Segments
Conceal Intelligence	½	N	N	1	Espionage roll to make a defined fact harder to uncover with Gather Intelligence
Encourage Immigration	1	Y	N	2	Propaganda vs. EGO Roll to take points of CON from target Kingdom
Enhance Satisfaction	1	N	N	3	Propaganda to gain a permanent +1 EGO
Gather Intelligence	½	Y	N	1	Espionage vs. Espionage to learn useful/valuable information
Impair Politics	½	N	N	2	Diplomacy vs. Diplomacy to hinder enemy’s Political conduct
Incite Revolt	1	Y	N	3	Propaganda vs. EGO Roll to incite a rebellion
Manipulate Media	1	N	N	2	Propaganda roll to improve later Propaganda or EGO Rolls
Negotiate	½	N	N	1	Diplomacy vs. Diplomacy to negotiate an agreement of some sort
Political Enhancement	1	N	N	3	Bureaucracy to gain permanent +1 to any Political Skill
Quell Revolt	1	N	N	2	Propaganda or Strategy vs. an EGO Roll to quash rebellion
Treachery	2	Y	N	2	Espionage vs. Espionage to create or make use of a traitor

EXPLANATION OF RESULTS

Many Kingdom Combat Maneuvers (particularly Military ones) use a table to describe what the results of the Skill Versus Skill Contest mean. Typically the outcome is obvious, but a few entries require greater explanation.

If the attacker fails by 0, it means the attacker's roll succeeded, but the target also succeeded with his own roll and matched the attacker's margin of success exactly.

"Attacker Wins By..." means the attacker's roll succeeded, but the target's roll either failed (in which case the "Wins By" amount is the amount by which the attacker's roll succeeded) or did not succeed by the same margin of success (in which case the "Wins By" amount is how much the attacker's margin of success beat the target's margin of success).

"Target Wins By..." means the attacker's roll succeeded, but the target's roll also succeeded and beat the attacker's margin of success by the indicated amount.

ENDURANCE COST OF KINGDOM COMBAT MANEUVERS

Most Kingdom Combat Maneuvers cost END (*i.e.*, money) to perform. Sometimes the cost is a flat cost; at other times it reflects a percentage of the resources involved or other factors.

If desired, a Kingdom can spend extra END to improve its chances of succeeding — in other words, it's throwing money at the problem. Typically for each +1 END spent beyond the Maneuver's base cost, a Kingdom receives a +1 bonus to its roll. (In the case of END costs that are a percentage, the GM may want to alter the cost of a +1.)

Typically the END cost of a Maneuver is paid only by the Kingdom that initiates the Maneuver (*i.e.*, the "attacker"). Some Maneuver specifically indicate an END cost for the "target" as well, and in any event the GM can impose an END cost on the target if he thinks that would be appropriate.

ECONOMIC COMBAT MANEUVERS

Economic Combat Maneuvers involve efforts to improve one's own economy or to harm the economies of one's enemies.

DESTROY ECONOMIC RESOURCE

Roll: Varies (see text)
Action: Half Phase (Attack Action)
END: 2

The *Destroy Economic Resource* Combat Maneuver allows a Kingdom to damage or ruin an economic asset belonging to another Kingdom. This could involve a run on the target's stock market to artificially alter prices and cause a crash, covertly causing a cave-in at a mine, secretly spraying harmful chemicals over farmland, creating obstacles that prevent the target from using its trade routes, wrecking valuable infrastructure (like hyperspace beacons or an aqueduct), or the like.

The performance and outcome of a Destroy Economic Resource attack can vary depending on the target and method chosen. The attacker might use Commerce, Espionage, Propaganda, Strategy, or various other Skills to make the attack; the target might defend with the same Skill, or something different. If Espionage or Strategy are used, DEF and/or STR may come into play as modifiers.

If the attack succeeds, the GM must determine how many points of REC the targeted economic resource accounts for. This may be obvious (for example, if the target is the defined special effect of one or more points of REC), but in other cases the GM will have to specify an appropriate outcome after consulting the following table.

DESTROY ECONOMIC RESOURCE TABLE

Attacker Fails By...	Result
4 or more	No effect on target resource; attacker's involvement in attack is known
0 (tie) to 3	No effect on target resource; attacker's involvement in attack not known (though it may come out through investigation)
Attacker Wins By...	Result
1	Target Kingdom loses 25% of the REC provided by the target resource until it's Rebuilt.
2	Target Kingdom loses 50% of the REC provided by the target resource until it's Rebuilt.
3	Target Kingdom loses 75% (or more) of the REC provided by the target resource until it's Rebuilt.
4 or more	Resource is totally destroyed and cannot be Rebuilt; target Kingdom loses 100% of the REC provided by the target resource permanently.
Target Wins By...	Result
1 or more	No effect on target resource; attacker's involvement in attack is known

DEVELOP ECONOMIC RESOURCE

Roll: Bureaucracy
Action: Full Phase
END: See text

Sometimes Kingdoms want (or need) to find new sources of revenue. The *Develop Economic Resource* Combat Maneuver allows them to do that.

There are two ways to Develop an Economic Resource. The first is to simply re-assign existing points of REC to a new or different resource. This represents spending time and money to build/discover a new resource, economic development programs focused on specific industries, and the like. To do this, a Kingdom takes a Full Phase and must succeed with a Bureaucracy roll at a penalty equal to the number of points of REC it wants to re-assign; this costs 1 END. If it succeeds, the new resource has been “developed.”

Example: *Dean thinks he’s got too much of his Kingdom’s REC in agriculture (Wheat 2, Apples 1, Barley 4) — he needs to diversify. He decides to try to develop some iron mines by moving some laborers from the farmlands to the mountains. In game terms he wants to re-assign 2 points of REC in Barley to Iron. This requires 1 END and a Bureaucracy roll at -2. He succeeds. His Kingdom now has Wheat 2, Apples 1, Barley 2, and Iron 2.*

The second, and more difficult, way is to develop an entirely new Economic Resource from scratch, or to improve an existing Resource. In game terms, this means permanently increasing a Kingdom’s REC by 1, defined as creating or discovering a new Economic Resource of some kind (as opposed to permanently enhancing an existing resource, which requires the *Improve Economic Resource* Combat Maneuver described below). This costs $\frac{1}{2}d6+2$ END and requires the Kingdom to succeed with a Bureaucracy roll. The GM should modify the roll based on the difficulty of “creating” the new resource, the amount of time and effort involved, technological hurdles, and similar factors. He may even rule that some Kingdoms can’t develop some resources (a Kingdom in an arctic climate probably can’t develop agricultural Economic Resources unless it can build lots of greenhouses, for example). On the other hand, if the Kingdom already has related resources or expertise, the GM might allow the Kingdom to use Commerce as a Complementary Skill. If the roll succeeds, the Kingdom gains the new Economic Resource, permanently increasing its REC by 1. (The new Resource must be assigned to a location in the Kingdom as discussed on page 214.) Thereafter the Kingdom can increase the amount of REC that Resource provides either by shifting REC points to it (see above) or via the *Improve Economic Resource* Combat Maneuver. If the roll fails, the Kingdom doesn’t develop the new resource and gains nothing; if it fails badly (by 4 or more), the Kingdom loses an additional 1d6 END due to poor investments, catastrophes caused by the attempt, and the like.

Unless the GM rules otherwise, a Kingdom can only use this Economic Combat Maneuver successfully once per Turn.

ECONOMIC ENHANCEMENT

Roll: Bureaucracy
Action: Full Phase
END: 3

Sometimes Kingdoms want to improve their economies not by improving a specific resource, but through general, overall improvements: recruiting a new Minister of Trade (or training the one it has to be even better); upgrading the roads; reforming the tax and tariff codes; and so on. In game terms this means improving an Economics-related Skill with the *Economic Enhancement* Combat Maneuver.

To use Economic Enhancement, a Kingdom first selects a Skill it wants to improve. Typically this Skill is Commerce, but it could be any Skill the GM regards as primarily Economic. It takes a Full Phase Action, pays 3 END, and makes a Bureaucracy roll. The roll suffers a penalty equal to the Skill’s current roll divided by 5 (the better the Kingdom already is at something, the harder it is to improve). If the roll succeeds, the chosen Skill gets a permanent +1 to its roll, with the special effect defined as discussed above. If the roll fails, nothing happens; the Kingdom simply wasted its time and money on a failed effort to improve itself. If the roll fails badly (by 4 or more), the chosen Skill loses 1 from its roll permanently — whatever the Kingdom did, it just made things worse.

At the GM’s option, a Kingdom can use Economic Enhancement to improve any Skill Level that primarily applies to Economic Skills. This may take more time (at least an Extra Phase) and should cost more END (at least 6 END); the penalty to the Bureaucracy roll equals *twice* the bonus currently provided by the Skill Levels.

Example: *Andy’s Kingdom, the Sultanate of Qwazim, hasn’t been doing well in trading lately so he decides it’s time for an economic improvement plan. He wants to increase his Commerce 12- to Commerce 13-, with the special effect being that he’s having the old vizier beheaded and installing a new, much better, vizier in his place. Qwazim pays 4 END and makes a Bureacracy roll at a $(12-/5 =) -2$ penalty. The roll succeeds! The new vizier lives up to his promise, and forever after Qwazim has a Commerce 13- roll.*

Alternately, Andy might have decided to improve Qwazim’s Skill Level: +1 with Bureaucracy, Commerce, and Communications (which the GM agrees is primarily economic in nature). This takes at least an Extra Phase, costs at least 6 END, and involves a -2 penalty to the roll.

Unless the GM rules otherwise, a Kingdom can only use Economic Enhancement once per Skill per Turn (or possibly just once per Turn, regardless of the number of Economics-related Skills it has).

ECONOMIC RECOVERY

Roll: Commerce (see text)
Action: Extra Segment (see text)
END: 1

Sometimes a Kingdom wants (or needs) to devote its efforts not to war or political machinations, but to building up its own economy through investment, work programs, ritual magic, distributing largesse gained in battle, or the like. In game terms this is referred to as an *Economic Recovery* Combat Maneuver and allows a Kingdom to take a Recovery in the middle of a Turn. Unless it uses this Maneuver, a Kingdom can only take a Recovery in Post-Segment 12.

To Enhance its Economy, a Kingdom must meet several requirements. First, it must succeed with a Commerce roll; the GM can modify this roll as he sees fit based on the current circumstances of the Kingdom and the campaign. (The Kingdom can pay extra END to improve its chances on this roll; like the old saying goes, you gotta spend money to make money.) Second, the Kingdom cannot perform *any other Actions of any type* (Economic, Military, or Political) in that Segment or the Segment following it. If it does, it gains no benefit from Economic Recovery and has simply wasted any time spent on it. Third, a Kingdom can only perform Economic Recovery once per Turn (or even less often, if the GM prefers). Fourth, unless the GM rules otherwise, a Kingdom cannot Hold its Economic Action until a later Segment and then Economic Recovery; it must use the Economic Phase in the Segment in which it ordinarily occurs.

If a Kingdom satisfies those requirements, it gets a Recovery in mid-Turn and can add its REC to its END.

FOREIGN AID

Roll: Bureaucracy
Action: Half Phase
END: 1 (in addition to the END given away)

Sometimes one Kingdom wants to give money to another out of charity, a desire to curry favor or cement an alliance, to help develop resources the giver needs, or the like. Whether it's done for altruistic or self-serving motives, it requires the *Foreign Aid* Combat Maneuver.

To use Foreign Aid, a Kingdom chooses an amount to send (*i.e.*, how many points of END it will give the recipient) and a recipient for its largesse. The recipient may refuse, in which case the Action is wasted and nothing happens. If the recipient agrees to receive the money (END), the giver makes a Bureaucracy roll. If the roll succeeds, the giver gives away the full amount of END (plus 1 END for administrative expenses) and recipient receives the full amount of END. If it fails, the giver gives away the full amount of END (plus 1), but the amount received by the recipient

is reduced by 25% times the amount the roll failed by. (Thus, failure by 4 or more means no money made it to the recipient.) This represents losing some of the money to bandits on the road, corrupt officials siphoning off aid money for themselves, bureaucratic inefficiencies, and the like.

At the GM's option, a Kingdom can instead define its Foreign Aid as giving raw materials, food, technology, medicine, or something else other than money. But in game terms the giver sends and the recipient receives END (not REC or anything else).

IMPAIR COMMERCE

Roll: Commerce vs. Commerce
Action: Half Phase (Attack Action)
END: 2

Sometimes an indirect attack is more beneficial than a direct assault. A Kingdom can perform an *Impair Commerce* Maneuver to hinder an enemy's economy. Examples of this include flooding the market with counterfeit money to spark inflation, starting rumors that drive down stock market prices, ruining or harming an economic resource of some sort, and the like.

To use Impair Commerce, the attacker engages in a Commerce Versus Commerce Skill Contest against the target. At the GM's option, in appropriate circumstances both attacker and defender may make Espionage rolls as Complementary Skill Rolls, or Espionage may be substituted for Commerce in the Skill Contest.

If the defender wins the Contest, nothing happens to it. If the attacker wins, use the accompanying table to determine the results.

IMPAIR COMMERCE TABLE

Margin Of Success	Result
1	Defender suffers a -1 on Commerce rolls (and at the GM's option, related rolls) for 1d6 Segments
2-3	Defender suffers a -1 on Commerce rolls (and at the GM's option, related rolls) for 2d6 Segments
4-7	Defender suffers a -2 on Commerce rolls (and at the GM's option, related rolls) for 3d6 Segments
8-15	Defender suffers a -3 on Commerce rolls (and at the GM's option, related rolls) for 4d6 Segments
16 or more	Defender suffers a -4 on Commerce rolls (and at the GM's option, related rolls) for 5d6 Segments



IMPROVE ECONOMIC RESOURCE

Roll:	Commerce (see text)
Action:	Full Phase
END:	4 or 50% of current REC value of the economic resource, whichever is greater

Similar to Develop Economic Resource, the *Improve Economic Resource* Combat Maneuver allows a Kingdom to devote special effort (and perhaps money) to improving one of its economic assets so that it becomes more productive in the future. This Maneuver can only be used on economic resources that define the special effect of points of REC.

To Improve an Economic Resource, a Kingdom must first declare which resource it wants to improve. It must then succeed with a Commerce roll; the GM can modify this roll as he sees fit based on the current circumstances of the Kingdom and the campaign. The Kingdom can spend extra END to improve the roll, for example. On the other hand, the Economic Resource's *current* level acts as a negative modifier to the roll — the better something is, the harder it is to improve. Thus, trying to improve a 2-REC mine to a 3-REC mine imposes a -2 penalty to the roll. (The GM can modify this penalty system in campaigns or settings where Kingdoms' assets have large RECs; otherwise the penalty may soon make the roll impossible. Similarly, the GM can reduce or eliminate this penalty if a long time has passed since the last use of Improve Economic Resource on that Economic Resource, if an improvement in the Kingdom's tech level justifies it, or the like.) Unless the GM rules otherwise, no Economic Resource may be improved more than once per Turn (if appropriate, the GM might even lengthen this period).

If the roll succeeds, the REC provided by the target resource increases by +1 permanently (or, at the GM's option, +2 REC if the roll succeeds by half or more). If the roll fails, there's no increase at all; if the roll fails badly (by 4 or more), the resource *loses* 1 point of REC permanently — the effort to make it better impaired it somehow.

The basic END cost of Improve Economic Resource is either 4 or 50% of the REC provided by the resource, whichever is greater. Thus, even if the roll succeeds, it will take several Turns before the Kingdom "makes back its investment" — but over the long spans of time covered in many Kingdom campaigns, this can still add up to a significant increase in earnings.

REBUILD ECONOMIC RESOURCE

Roll:	Commerce (see text)
Action:	Full Phase (or longer, see text)
END:	1.5 times the lost REC value of the resource

If an economic resource is damaged or destroyed due to a successful Destroy Economic Resource or Covert Operation: Sabotage Maneuver, a badly failed Improve Economic Resource Maneuver, a natural disaster, or the like, a Kingdom can use Rebuild Economic Resource to "repair" the damage and return the asset to full production capacity (*i.e.*, the full amount of REC it provides).

To Rebuild an Economic Resource, a Kingdom must first declare which resource it wants to repair. It must then succeed with a Commerce roll; the GM can modify this roll as he sees fit based on the current circumstances of the Kingdom and the campaign. The Kingdom can spend extra END to improve the roll; repeated attempts to repair the same resource will probably suffer penalties similar to those for Improve Economic Resource.

If the roll succeeds, the REC provided by the target resource increases permanently by +1 per point by which the roll succeeded. (Thus, a lot of "damage" to a source of multiple points of REC could be repaired easily in one try, or could take multiple attempts.) However, Rebuild Economic Resource cannot increase a resource's REC beyond what it was before it was damaged. If the roll fails, no "repairs" are made. If the roll fails badly (by 4 or more), the resource *loses* another 1 point of REC permanently — the effort to make it better impaired it somehow.

The basic END cost of Improve Economic Resource is 1.5 times the lost REC value of the resource. For example, if a factory complex provides 5 REC, and is damaged so that it only provides 2 REC, an attempt to repair it costs $((5-2) \times 1.5 =) 4$ END. Thus, even if the roll succeeds, it will take several Turns before the repairs make up for the repair costs.

TRADE

Roll:	Commerce (see text)
Action:	Half Phase (see text)
END:	1

Kingdoms use the *Trade* Combat Maneuver to initiate and conclude trading ventures with other Kingdoms. Depending on the type of campaign this could involve sending an expedition down the Silk Road to China, exchanging Japanese-manufactured automobiles for American-manufactured steel mill equipment, or establishing an ongoing series of exchanges of Rugerrian space crystals for hyperdrive engine parts.

To use Trade, a Kingdom must make two decisions. First, it must choose which other Kingdom to try to Trade with. Second, he must decide which of his resources — the sources of income he uses to define his REC — he wants to offer in Trade.

A given point of a given resource cannot be used to Trade more than once per Turn, though a Kingdom doesn't have to offer all of the points of REC it has in a resource in a single Trade. If a point of REC isn't defined as a tangible good — if, for example, it's defined as “active trading ports” or “tourism” — then it cannot be used to Trade without the GM's permission.

Example: *John's Kingdom of Anglia has REC 8, defined thusly: Wheat 3, Religious Tourism 1, Cattle 2, Fish 1, Favorable Harbors for Trading 1. If he wants to Trade with Carmarthen using his Wheat, he can only Trade up to 3 points of Wheat this Turn. He can Trade 2 points of Wheat in one Phase and 1 point in another Phase, but regardless of how he decides to divide it up can't Trade more than 3 Wheat — that's all the wheat he has. And he can't use Religious Tourism or Favorable Harbors for Trade at all, since they're not tangible goods he can exchange with another Kingdom.*

The Kingdom offered the Trade doesn't have to accept it; Trade can't be used to compel a deal. If the “target” Kingdom is run by another player, the player decides whether the Kingdom accepts the Trade; if it's an NPC Kingdom, the GM decides (perhaps by rolling randomly). If the target Kingdom refuses the Trade, nothing happens; the “attacking” Kingdom keeps its offered resource, gains nothing, and has wasted a Half Phase Action.

If the target Kingdom agrees to Trade, it must offer something in return. It can choose whatever resource it has to offer, and can offer as much or as little as it likes. (The attacking Kingdom can of course tell the target Kingdom what it wants to Trade for, though that doesn't obligate the target Kingdom to offer it.) Each Kingdom then makes a Commerce roll and consults the accompanying table. Note that it is possible for both Kingdoms to succeed (meaning they each made a profit on the deal for some reason), both to fail (which usually means corrupt officials interfered with the Trade for their own purposes, sudden market reversals, or the like), or one to fail and one to succeed (meaning the “winner” got the best of the “loser” somehow, though not necessarily intentionally).

Although Trade only counts as a Half Phase Action, for reasons of both “realism” and dramatic sense the GM may require a Kingdom to send a trading party many Segments or Turns in advance to account for travel time and other difficulties. (If so, declaring that one wishes to send a trading party counts as a Zero Phase Action; actually performing the Trade when the delegation arrives requires a Half Phase Action at that time.) Getting the Trade-acquired goods back to the Kingdom may also require some time.

If possible, the players involved and the GM should roleplay Trade, perhaps with each player temporarily taking on the role of someone important to the trade negotiations. It can be a lot of fun and sow the seeds for later events at both levels of play.

PURCHASE

At the GM's option, Kingdoms can use a variant form of Trade called *Purchase*. To make a Purchase, a Kingdom offers another Kingdom points of END (*i.e.*, money) for an economic resource defined as points of REC. If the “target” Kingdom accepts, the deal is concluded and the two resources exchanged; if not, nothing happens (except the loss of the Half Phase devoted to the Action by the “attacker”). The target Kingdom can of course negotiate, asking for a higher price or other things in addition to what the attacker offered.

EXPANDING THE IMPACT OF TRADE

The Kingdom creation and combat rules in this book generally don't go into such a level of detail that a Kingdom is required to have certain resources to perform certain Actions or conduct a given activity. However, in the interest of greater campaign depth, greater “realism,” or the like, the GM could impose such restrictions. In the event a Kingdom lacks sufficient resources, it would have to use Trade to get them.

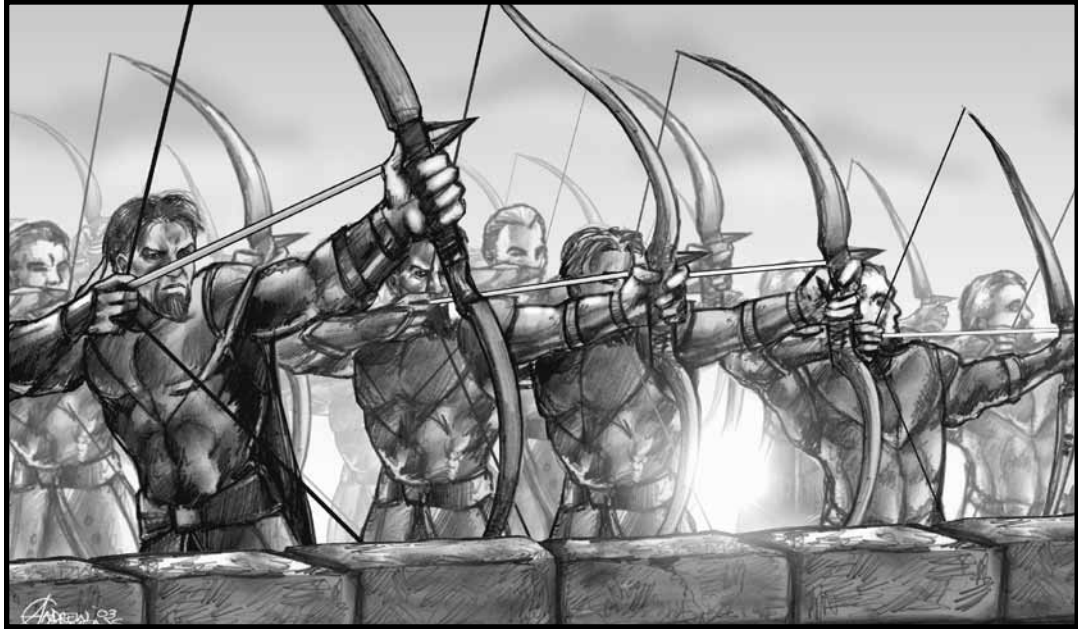
For example, the GM of a medieval-level Kingdom campaign might rule that a Kingdom can't increase the size of its navy (*i.e.*, add more STR points to Navy forces) unless it has at least 1 REC defined as “wood.” If the Kingdom doesn't already have any REC allocated to “Lumber” or the like, it would have to Trade with a Kingdom that did to get what it needed.

TRADE TABLE

Roll	Result
Succeeds by 4+	As success by 1, but the REC is increased by 100% (or more, in the GM's discretion)
Succeeds by 2-3	As success by 1, but the REC is increased by 75%
Succeeds by 1	Due to the success of the Trade, the amount of points of REC the Kingdom offered in Trade increases by 50% for the next Recovery taken only (minimum of 1 point, maximum of the number of points of REC offered by the Trade partner)
Succeeds by 0	Due to the success of the Trade, the amount of points of REC the Kingdom offered in Trade increases by 25% for the next Recovery taken only (minimum of 0 points, maximum of the number of points of REC offered by the Trade partner)
Fails by 1	The deal goes badly for the Kingdom. The amount of points of REC the Kingdom offered in Trade decreases by 25% for the next Recovery taken only (minimum of 1 point)
Fails by 2-3	As failure by 1, but the REC decreases by 50%
Fails by 4+	As failure by 1, but the REC decreases by 75% or more (minimum of 2 points, unless only 1 point of REC was offered)



The indicated increase or decrease in REC applies for the next Post-Segment 12 Recovery, but the GM may, at his option, allow it to apply to a mid-Turn Recovery instead.



MILITARY COMBAT MANEUVERS

Military Combat Maneuvers involve the application of military force to achieve specific goals (conquest, destruction, or the like).

Units

As discussed on page 209, a Kingdom's STR Points — its military might, the forces with which it fights — are typically divided into "units." There are no rules dictating how many units a Kingdom has to have, what they have to contain, or how many soldiers or tanks a unit contains; that's all a question of GM requirements, player preference, and special effects. One player might maintain a single massive force of infantrymen for his Kingdom, while another organizes his into infantry, mechanized infantry, tanks, navy, aircraft carriers, air force fighters, air force bombers, and other types of units. The only thing that matters in game terms is how many STR Points one unit has versus how much another unit has, so you can determine the effects on Attack Rolls. Thus, a unit defined as 1,000 starfighters (50 STR Points) is an even match for two star dreadnaughts (50 STR Points) even though the former vastly outnumbers the latter.

ADDING STR POINTS

Many Military Combat Maneuvers (and some other types of Kingdom Combat Maneuvers) involve adding STR Points into the equation to determine the outcome of an event. This represents the fact that the side with more forces, or better forces, or both has an advantage over its opponent. To determine the Skill Roll bonus provided by STR Points, divide the STR Points by 5 (standard rounding rules apply).

Example: *Vestria and Mhendaria have gone to war over control of the valuable Alahadrion River valley. Vestria's army has a total of 82 STR Points, while Mhendaria is only able to field 58 STR Points' worth of forces. Thus, Vestria will get a $(82/5 =) +16$ bonus to its Strategy roll, and Mhendaria a $(58/5 =) +12$ bonus, when they engage in a Skill Versus Skill Contest to determine the outcome of the battle.*

UNITS AND SPEED

In most Kingdom campaigns, regardless of how much a Kingdom has divided up its military into units, it still only gets one Full Phase's worth of Actions whenever one of its Military Phases comes up. This isn't "realistic," but it streamlines game play and keeps Military activities on an even keel with Political and Economic activities.

In campaigns with a greater emphasis on Military matters and/or a desire for more complex Military action, the GM can rule that *every unit* gets a Full Phase's worth of Actions on every one of the Kingdom's Military Phases, or perhaps that every significant unit (as defined by the GM) gets an Action. This will *significantly* slow down play, but it allows for more precise resolution of Military activities and provides greater incentive to define specific types of units.

COMBINING UNITS

Since Military Combat Maneuvers tend to involve the use of STR Points versus STR Points to modify the Attack Roll, any number of defined units can be combined into a larger force if desired, and one type of unit can fight a totally different type of unit if circumstances require. For example, a unit defined as ten knights (20 STR Points) can fight one defined as four hundred peasants (10 STR Points). Later on, that unit of knights can join forces with units of peasant levies (5 STR Points), archers (10 STR Points), and dragon cavalry (30 STR Points) for a total of 65 STR Points to attack with.

COORDINATED ATTACKS

There may be situations in which two or more Kingdoms want to combine their forces to attack a third Kingdom jointly. You can think of this as akin to Coordinating an attack in the standard *HERO System* rules. To do this, all Kingdoms that want to combine forces must make unmodified Strategy rolls. If all the rolls succeed, the forces have joined together successfully and now attack the target as a single force.

If any of the attackers fails his Strategy roll, he cannot join forces with his allies. In that case, the target Kingdom gets to choose which opponent to fight first.

The Maneuvers

ATTACK

Roll: Strategy vs. Strategy (STR Points apply; DEF applies)

Action: Half Phase (Attack Action)

END: Special (see text)

This is the standard Military Combat Maneuver; it's how one Kingdom makes a violent assault on another using a military force.

To use Attack, the attacker must declare two things: the military units he's using (*i.e.*, how many points of STR he wants to devote to the assault); and the specific target. The target could be a fortified position within an enemy Kingdom, an opposing military force, or the like. Typically the target Kingdom's DEF applies as a penalty to the attacker's roll (though that may not be the case if the target is, say, a Kingdom's army outside the Kingdom's borders).

After the attacker picks a target, the Kingdoms engage in a Skill Versus Skill Contest using the *Strategy* Skill. The attacker adds its STR Points as a bonus to his roll, and the target's DEF as a penalty if that applies; the defender adds its STR Points as a bonus to its own roll. Consult the two accompanying tables — Attack Table and Casualties Table — to determine the results. With the Attack Table, determine the overall outcome of the battle using a Skill Versus Skill Contest, as usual.

To use the Casualties Table, each side makes a second Strategy roll, using the result of its roll in the Skill Versus Skill Contest as Complementary (STR Points do not apply as a modifier to this roll). Consult the table to determine how many casualties each side inflicted on its opponent. *Both* sides must roll on the Casualties Table; thus, a winning force may suffer hideous losses to obtain its victory, or may suffer no appreciable losses at all. Despite one side being the nominal victor, both could suffer so many casualties that they effectively annihilate each other.

ATTACK TABLE

Attacker Fails By...	Result
9 or more	Total loss for attacker
5-8	Major loss for attacker
1-4	Loss for attacker
0 (tie)	Loss for attacker
Attacker Wins By...	Result
1-2	Victory for attacker. Defending target suffers minor damage and cannot provide any REC that Turn (but does in later Turns). Defender retains control of territory involved, if desired and appropriate.
3-4	Minor victory for attacker. Defending target suffers major damage and cannot provide any REC until Rebuilt. Defender retains control of territory involved, if desired and appropriate.
5-8	Major victory for attacker. Same as success by 2, except that if the attacker prefers, the target or territory involved is Conquered.
9 or more	Total victory for attacker. Defending target is Conquered or destroyed (as the attacker prefers). The target loses that territory (and any resulting REC and the like) permanently (or until it can Rebuild); the attacker may gain the REC involved.
Defender Wins By...	Result
1-4	Loss for attacker
5-8	Major loss for attacker
9 or more	Total loss for attacker

CASUALTIES TABLE

Roll Succeeds By	Result
-2 (fails by 2) or more	Opposing force loses (½d6-2) x 5% (minimum of 0%) of its STR Points
-1 (fails by 1)	Opposing force loses (½d6-1) x 5% (minimum of 0%) of its STR Points
0	Opposing force loses (½d6-1) x 10% (minimum of 0%) of its STR Points
1-2	Opposing force loses ½d6 x 10% of its STR Points
3-4	Opposing force loses (½d6+1) x 10% of its STR Points
5-8	Opposing force loses 1d6 x 10% (minimum of 20%) of its STR Points
9-16	Opposing force loses (1d6+1) x 10% of its STR Points
17 or more	Opposing force loses (2d6+1) x 10% (maximum of 100%) of its STR Points

At the GM's option, the losses to an opposing force may indicate that those forces were captured, not killed. Indicated losses are permanent, but replacements can be Recruited.



An Attack costs the attacker END equal to 10% of the STR Points involved (round any fractions up to the next whole point) and the defender END equal to 5% of the points of STR involved. (If the defender doesn't have the full END necessary, or is unwilling to spend the full amount, for every 1% or fraction thereof below 5% he suffers a -1 to his Strategy roll.) The GM can reduce this cost if he wants to make military action a significant aspect of the campaign (perhaps to 5%/2%).

Example: *Holderness attacks Northumbria. Holderness succeeds with its Strategy roll by 5, and Northumbria succeeds by 2. That means Holderness wins the Contest by a margin of three and scores a minor victory that deprives Northumbria of the REC from that region until Northumbria can Rebuild.*

Now both sides roll for casualties. Holderness has Strategy 14- and gets a +2 Complementary bonus based on its roll in the Contest. It rolls a 12, succeeding by 4. That means Northumbria takes $(\frac{1}{2}d6+1) \times 10\%$ casualties; Holderness rolls a total of 3, so Northumbria loses 30% of the STR Points it had in the battle as casualties. Northumbria also has Strategy 12- and gets a +1 bonus from its Contest roll. It rolls a 13, succeeding exactly. That means Holderness takes $(\frac{1}{2}d6-1) \times 10\%$ casualties; Northumbria rolls a total of 1, so Holderness loses 10% of the STR Points it had in the battle as casualties.

CONQUEST

If an Attack succeeds in killing all the military forces (STR Points) defending a particular area or target, the attacker can be considered to have *Conquered* that area/target (at least temporarily). Some entries in the Attack Table refer to this. A Conquered territory no longer provides SIZE, CON, or REC to the Kingdom it was taken from. Depending on the circumstances, the GM may rule that it now provides those things to the Kingdom that Conquered it. Conquered territory is also subject to being Razed (see below) and the like.

The "Conquest" result also applies if an attacker moves forces into an area the target Kingdom is not defending for some reason. In that situation the attacker simply has to March into the territory to claim it; he doesn't have to make an Attack or perform any other sort of Action. However, there's also no requirement that the Kingdom keep the territory — its forces may simply be passing through on the way to their intended target and not want to worry about leaving a force behind to hold the "conquest."

DISGUISED ATTACK

At the GM's option, a Kingdom can declare a *Disguised Attack* instead of a regular one. This means it makes an Attack, but conceals the fact that its forces are doing the dirty work. This might include hiring privateers to harass enemy shipping, dressing its soldiers in some other Kingdom's uniforms before sending them on a raid, or the like.

To do this, the Kingdom must make a separate Strategy roll at a penalty of -1 per 5 STR Points (or fraction thereof) used in the attack. If the roll succeeds, it's successfully executed the Disguised Attack. Determine the results of the Attack normally. The target (and other Kingdoms) can only determine who was really behind the Attack by using a Half Phase Political Action and succeeding with an Espionage roll by an amount equal to or greater than the amount by which the attacker's Strategy roll to disguise its forces succeeded. If the attacker's Strategy roll fails, determine the results of the Attack like normal, but no one's fooled by the attempt to conceal the attacker's identity.

COVERT OPERATION

Roll:	Espionage vs. Espionage (DEF applies)
Action:	Half Phase (Attack Action)
END:	2

This Military Combat Maneuver allows a military unit to do one of two things: kidnap an enemy; or sabotage one of the enemy's resources. (If the goal of a "covert op" would be to kill someone, use the *Assassination* Political Combat Maneuver even though it's the military doing it.)

COVERT OPERATION: KIDNAPPING

To use Covert Operation to kidnap someone, a Kingdom must first declare who its target is. Typically it must choose a person who's defined as the "special effect" of a Skill Roll bonus or a Skill Level (see the *Skills* section), an NPC military commander, or someone else who has a specific game effect in the Kingdom context. The GM may permit a Kingdom to choose some other NPC as a target, but in that case must decide what game effect a kidnapping has. The GM could even permit a PC to be kidnapped, but it's usually best to resolve attacks like that against a PC using the standard personal-level combat rules.

After the attacker picks a target, the Kingdoms engage in a Skill Versus Skill Contest using the *Espionage* Skill; the attacker must apply the target's DEF as a penalty to its roll. Use the accompanying table to determine the results.

COVERT OPERATION: SABOTAGE

To use Covert Operation to sabotage something, a Kingdom must first declare what its target is. Typically it must choose an asset that's defined as the "special effect" of the Kingdom's REC (see the *Characteristics* section), or some other object or facility that has a specific game effect in the Kingdom context. The GM may permit a Kingdom to choose some other target for sabotage, but in that case must decide what game effect an act of sabotage has.

After the attacker picks a target, the Kingdoms engage in a Skill Versus Skill Contest using the *Espionage* Skill; the attacker must apply the target's DEF as a penalty to its roll. Use the accompanying table to determine the results.

COVERT OPERATION: KIDNAPPING TABLE

Attacker Fails By...	Result
4 or more	Total failure for attacker; target unharmed, all attacker's personnel and assets devoted to the mission killed, destroyed, or lost.
2-3	Major failure for attacker; target unharmed, attacker loses (1d6+1) x 10% of the personnel and resources dedicated to the mission
1	Failure for attacker; target unharmed, attacker loses (½d6) x 10% of the personnel and resources dedicated to the mission
0 (tie)	Failure for attacker; target unharmed or mildly harmed, attacker loses (½d6-1) x 10% of the personnel and resources dedicated to the mission
Attacker Wins By...	Result
1	Success for attacker. Target is kidnapped but may have suffered some harm in the process, attacker may have lost (½d6-1) x 10% of the personnel and resources dedicated to the mission
2	Major success for attacker. Target is kidnapped but may have suffered some harm in the process, attacker loses no personnel or resources
3	Major success for attacker. Same as 2, but at the GM's option, the kidnapping goes undetected for 1d6 hours
4 or more	Total success for attacker. Target is kidnapped unharmed, attacker loses no personnel or resources; at the GM's option, some third party is blamed for the kidnapping, and/or it goes undetected for 1d6 days
Target Wins By...	Result
1	Failure for attacker (see above)
2-3	Major failure for attacker (see above)
4 or more	Total failure for attacker (see above)

COVERT OPERATION: SABOTAGE TABLE

Attacker Fails By...	Result
4 or more	Total failure for attacker; target unharmed, all attacker's personnel and assets devoted to the mission killed, destroyed, or lost.
2-3	Major failure for attacker; target unharmed, attacker loses (1d6+1) x 10% of the personnel and resources dedicated to the mission
1	Failure for attacker; target unharmed, attacker loses (½d6) x 10% of the personnel and resources dedicated to the mission
0 (tie)	Failure for attacker; target unharmed or mildly harmed, attacker loses (½d6-1) x 10% of the personnel and resources dedicated to the mission
Attacker Wins By...	Result
1	Success for attacker. Target is damaged (but not destroyed) and loses ½d6 x 10% of the REC it provides until Rebuilt; attacker may have lost (½d6-1) x 10% of the personnel and resources dedicated to the mission
2	Major success for attacker. Target is badly damaged (but not destroyed) and loses 1d6-1 x 10% (minimum of 10%) of the REC it provides until it's Rebuilt
3	Major success for attacker. Same as 2, but target loses 2d6-1 x 10% (maximum 100%) of the REC it provides until it's Rebuilt
4 or more	Total success for attacker. Target totally destroyed and loses all of the REC it provides until it's Rebuilt (which costs 2.5 times the lost REC, instead of the normal 2 times)
Target Wins By...	Result
1	Failure for attacker (see above)
2-3	Major failure for attacker (see above)
4 or more	Total failure for attacker (see above)



ENHANCE DEFENSE

Roll: Strategy (see text)
Action: Full Phase
END: 1 (2 if gain 6+ DEF)

This Military Combat Maneuver allows a defending force to make itself harder to hurt. The typical special effect for this is building fortifications (or enhancing existing ones); other possibilities include retreating into terrain that makes things difficult for the attacker, moving around a lot so the attacker can't bring the defender to open battle, and the like. The result — the defender is hard to hurt — is what matters.

Enhance Defense is a Full Phase Action. To use it, a defender makes his Strategy roll and consults the accompanying table. The table also has some suggested modifiers to the roll, but whether to impose modifiers (and to what extent) is up to the GM based on the circumstances, the dramatic needs of the story, and similar factors.

ENHANCE DEFENSE TABLE

Defender's Strategy Roll	Result
Succeeds by 4 or more	Defender gains +2d6 DEF for 1d6+1 Segments (or, at the GM's option, for as long as it doesn't leave that area or do anything else to cause the extra DEF to be lost)
Succeeds by 2-3	Defender gains +1d6 DEF for 1d6+1 Segments (or, at the GM's option, for as long as it doesn't leave that area or do anything else to cause the extra DEF to be lost)
Succeeds by 0-1	Defender gains +½d6 DEF for 1d6 Segments (or, at the GM's option, for as long as it doesn't leave that area or do anything else to cause the extra DEF to be lost)
Fails by 2-3	Defender gains no additional DEF
Fails by 4 or more	Defender loses ½d6 DEF (to a minimum of 1, if the area has DEF) for 2 Segments; if the area has no DEF reduce its STR that performed the Fortify by 10% for 2 Segments.
Modifiers	Situation
-1 or more	Defender is hard-pressed by attackers
-1 or more	Foul weather hinders defender's efforts
+1	Defender has lots of raw materials to work with

FORTIFY

Roll: Bureaucracy
Action: Full Phase (see text)
END: See text

This Military Combat Maneuver allows a Kingdom to increase the DEF of a specific structure, city, fortification, or area by 1 permanently. Typically the “target” is one of the “subdivisions” of the Kingdom defined for its CON and SIZE (see page 212), a similar subdivision belonging to another Kingdom that the Kingdom has invaded and occupied, or any fortification or area for which a Kingdom's bought extra DEF with the *Partial Coverage* Limitation.

Using Fortify requires a Full Phase Action (and at the GM's judgment, possibly longer) and costs a number of END equal to the DEF total being sought (*e.g.*, if a Kingdom wants to Fortify an area from DEF 2 to DEF 3, it costs 3 END to do so). The Kingdom then makes a Bureaucracy roll with a penalty equal to the current DEF of the area being Fortified (the tougher an area already is, the harder it becomes to make it tougher). Strategy sometimes serves as a Complementary Roll. If the roll succeeds, the chosen area gains +1 DEF permanently (or, at the GM's option, +2 DEF if the roll succeeds by half or more). If the roll fails, nothing happens; if the roll fails badly (by 4 or more), at the GM's discretion the chosen area loses -1 DEF permanently.

The GM may also establish an upper limit on how much DEF any given location can have, or how frequently any given area or “target” can be Fortified.

GATHER SUPPLIES

Roll: Commerce
Action: Full Phase
END: None

After successfully Attacking enemy territory and occupying it (*i.e.*, a Kingdom succeeds with the Attack by 3 or more and chooses to occupy territory rather than destroying or abandoning it), in any later Segment that Kingdom may declare that the force occupying that territory engages in a *Gather Supplies* Maneuver. This means the force “lives off the land” in a sustainable fashion, effectively providing extra points of END that go to offset the cost of keeping it in the field.

To Gather Supplies, the Kingdom must succeed with a Commerce roll. The GM may impose penalties to the roll to represent territory that has few resources or other difficulties (*e.g.*, desert or arctic regions, areas subject to a “salted earth” policy by retreating defenders, lots of partisan defenders lurking among the population), or add a bonus if the area is particularly fertile, lush, or full of exploitable resources. If the Commerce roll succeeds exactly, the Kingdom gains 1 END that may only be used to offset the Maintain Military or other END costs associated with that STR unit that Turn. For every additional point the

roll succeeds by, add +1 END, but to a maximum of the Maintain Military and other END costs associated with that unit that Turn *or* any points of REC the territory in question provides to the Kingdom that originally controlled it, whichever is less. (Additionally, the former owner does not get any REC from that resource until such time as he takes control of it back.) In other words, a Kingdom generally can't use Gather Supplies to "make a profit," only to support the STR Points involved — only when an area is particularly productive (*i.e.*, defined as providing REC) can it help beyond basic military support.

A Kingdom may Gather Supplies from the same area in multiple Segments, but still subject to the total per Turn limit described above, unless the GM rules otherwise (based on, for example, exhaustion of the local resources).

PILLAGE

At the GM's option, instead of Gathering Supplies, a Kingdom may instead declare that it is *Pillaging* the territory it occupies. Pillaging is just like Gathering, but with two important differences. First, the amount that can be Pillaged is not restricted to the "upkeep" of the unit involved, it can be any amount (and thus "earn a profit" for the Kingdom). Second, an area can only be Pillaged *once*. After that it's considered not to have any more resources to provide at all (or at least not until the GM rules that it does, which usually requires years of time to pass). If another Kingdom takes control of that area, it can neither Gather Supplies there nor obtain any REC from it.

IMPAIR MILITARY

Roll: Strategy vs. Strategy (STR Points apply; DEF applies)
Action: Half Phase (Attack Action)
END: 2

Sometimes an indirect attack is more beneficial than a direct assault. A Kingdom can perform an *Impair Military* Maneuver to hinder an enemy's ability to fight. Examples of this include using electronic countermeasures to hinder enemy communications, poisoning an army's food so all the soldiers become sick, or the like.

To use Impair Military, the attacker must declare which unit he wishes to target (generally it's not possible to Impair all of a large enemy's STR Points at once unless it's all grouped together into one large unit, though this may depend on the circumstances). He then engages in a Strategy Versus Strategy Skill Contest against the target. The attacker adds its STR Points as a bonus to his roll, and the target's DEF as a penalty; the defender adds its STR Points as a bonus to its own roll. At the GM's option, in appropriate circumstances both attacker and defender may make Espionage rolls as Complementary Skill Rolls, or Espionage may be substituted for Strategy in the Skill Contest.

If the defender wins the Contest, nothing happens to it. If the attacker wins, use the accompanying table to determine the results. If the defending unit later merges with another military unit, the penalty applies to the unit as a whole. If a unit is attacked with Impair Military again while under the effect of a previous Impair Military attack, it suffers the worst of the two penalties.

IMPAIR MILITARY TABLE

Margin Of Success	Result
1	Defender suffers a -1 on Strategy rolls (and at the GM's option, related rolls) for ½d6 Segments
2-3	Defender suffers a -1 on Strategy rolls (and at the GM's option, related rolls) for 1d6+1 Segments
4-7	Defender suffers a -2 on Strategy rolls (and at the GM's option, related rolls) for 1d6+1 Segments
8-15	Defender suffers a -3 on Strategy rolls (and at the GM's option, related rolls) for 1d6+1 Segments
16 or more	Defender suffers a -4 on Strategy rolls (and at the GM's option, related rolls) for 1d6+1 Segments

LONG-DISTANCE ATTACK

Roll: Strategy
Action: Full Phase
END: 20% of STR Points (see text)

In some campaigns and settings, Kingdoms (or at least some Kingdoms) have the ability to attack their enemies from a long distance away. Examples include a modern nation-state launching ICBMs at an enemy across the ocean, a Fantasy realm whose sorcerer-king casts a curse on his adversary, or a Science Fiction Kingdom that can fling asteroids at enemy planets from light-years away.

This is referred to as a *Long-Distance Attack*. To perform one, the attacker must use a unit that has the *Ranged* (+1) Advantage and is otherwise defined as having an appropriate attack type. For example, a unit of archers has Ranged, but arrows can't fly more than about 250m, so archers can't make a Long-Distance Attack. On the other hand, a unit of Nuclear Missiles could have a Range measured in the thousands of miles.

To make a Long-Distance Attack, the attacker declares a target and makes a Strategy roll. The GM can impose any penalties on the roll that he considers appropriate; the target's DEF usually applies. If the roll succeeds, the attack succeeds; if not it fails entirely. The attack costs END equal to 20% of the STR Points involved (minimum of 2).

The GM has to adjudicate the results of a Long-Distance Attack based on the nature of the attack and the campaign. Some possibilities include:

- the target loses 1 CON (or some other amount) for every 1 point by which the Strategy roll succeeds (perhaps with some minimum amount lost, based on the nature of the attack and its target)
- the target loses one or more defined NPCs (and the bonuses or abilities they provide) permanently (or until they can be replaced with other Combat maneuvers)
- the target loses one or more defined sources of REC (until they can be rebuilt, if that's even possible)
- two or more of the above

With the GM's permission, the target of a Long-Distance Attack can Abort to Retreat from the attack (assuming it has some way to detect that the attack's occurring). The special effect of the "Retreat" could include deploying anti-missile missiles to shoot down an incoming nuke, using counterspells to negate an enemy's curse, or the like — usually it doesn't literally involve moving the target, but avoiding/mitigating the attack's effects somehow.

MAINTAIN MILITARY

Roll: N/A
Action: Full Phase
END: 10-20% of STR Points (see text)

In addition to any other END costs associated with specific Military Combat Maneuvers, a Kingdom with any STR Points must pay END simply to keep it in existence. This represents soldiers' pay, building and repairing equipment, and all the other costs associated with keeping a military functioning. If a Kingdom has spent any Character Points on STR, it must use at least one Full Phase Action per Turn for a *Maintain Military* Maneuver, or suffer the consequences (see below).

If the Kingdom has no STR Points active in the field (*i.e.*, performing Military Combat Maneuvers, or at the GM's judgment in position and ready to do so), Maintain Military costs END equal to 10% of its STR Points. The END cost depends not on the Character Points spent on STR, but the STR Points. For example, if a Kingdom's spent 20 Character Points to buy 80 STR, the cost to Maintain Military is 8 END. However, at the GM's option, if a military unit has an Advantage, for purposes of determining its END cost to Maintain you apply that Advantage to the points of STR. So, an 80 STR Points military with a +½ Advantage would cost $(80 \times 1\frac{1}{2} = 120)$ 12 END to Maintain. Similarly, a unit with a Limitation would cost less END to Maintain.

If a Kingdom has any of its STR Points active in the field, the END cost for Maintain Military equals 20% of its active STR Points, or 10% of its total STR Points, whichever is higher. The same rules regarding Advantages and Limitations apply.

If a Kingdom does not Maintain Military during a Turn, at the beginning of Segment 1 of the next Turn it loses $\frac{1}{2}d6 \times 10\%$ of its STR Points permanently, unless it spends *double* the normal Maintain Military cost as its Action in its very first Phase that Turn. The GM decides which specific units or types of STR Points are lost. If a Kingdom does not perform Maintain Military for two or more consecutive Turns, the GM may increase the rate at which STR Points are permanently lost.

MARCH

Roll: N/A
Action: Half or Full Phase (see text)
END: 5% of points of STR involved (see text)

Kingdoms use the *March* Maneuver to move troops. This may not literally involve marching; depending on the circumstances and the technology available it could mean riding in vehicles, flying on dragonback, or taking a military space cruiser to another planet. Unless the GM rules otherwise, at the start of a Kingdom campaign all of a Kingdom's military units (*i.e.*, its STR Points) are somewhere within its own borders. The Kingdom, subject to GM approval, decides exactly where each military force is (in whatever level of detail is appropriate for the game).

When a Kingdom declares a March, it can move some or all of its STR Points. However, the GM may rule that some units are unable to move due to their current situation. For example, an army occupying a castle that's under siege can't just leave — before it can March it has to use Attack, Retreat, Negotiate, or some other Maneuver to move the besiegers out of the way (or avoid them).

The distance STR can March per day depends on the nature of the campaign and its technology, the terrain (see the March Table), and other factors. In particular, a unit might have the *Fast* Advantage that allows it to move more quickly, or the *Slow* Limitation that impedes its movement (see page 210). The accompanying March Table lists suggested base daily March speeds. Since most Segments during a Kingdom Turn consist of more than one day, you must multiply the indicated distance by the number of days involved to find out how far a unit can move during a Phase as a Full Move (up to half that distance is a Half Move).

The GM can adjust the suggested daily March amounts as he sees fit. Some campaigns have technology or special circumstances that make it easier or harder to March for long distances. In campaigns that want to encourage military action, making it easier to get to the enemy (*i.e.*, increasing the daily March distance) is a viable option. Similarly, in campaigns that take place over a small scale (such as Kingdoms which



are competing organizations in a single city), the March amounts should reflect the size of the area.

The END cost of March equals 5% of the points of all the STR that moves (minimum of 1). The GM can reduce this cost (perhaps to 2%) if he wants to encourage military action in his campaign, or if movement is cheap and easy over a small scale (through a single city, for example).

FORCED MARCH

At the GM's option, a military unit can engage in a *Forced March* to move faster, but at a price. When a Kingdom declares a Forced March, multiply the distance it moves with a Full Move March that Segment by 1d6 x 10%. However, the END cost for that STR doubles, and at the end of the Forced March the STR loses 1d6 x 3% of its Character Points' worth of STR due to attrition (minimum of -1 Character Point).

MOVING CRUCIAL NPCS

Sometimes a Kingdom will want to move a crucial NPC separate from any military unit he's accompanying, either so he can perform some task or to keep him out of harm's way. Typically this is a Zero Phase Action (or may not even require an Action), but the GM has to determine how long it takes once it's declared. During that time, unless the GM rules otherwise the NPC provides no bonuses, abilities, or other benefits to his Kingdom because he's "in transit." (Of course, just moving him may also have this effect; for example, as noted on page 219, an NPC who provides a Strategy bonus to his forces for a battle usually has to be present at the battle.)

MARCH TABLE

Type Of Campaign	Suggested Daily March
Low Fantasy	8-24 km
High Fantasy	15-65 km
Modern Day	250-500 km
Low Science Fiction	0.1 to 1.0 light-years
High Science Fiction	1-100 light-years

Modifiers	Scale Multiplier
Terrain	
Very Difficult	x25%
Difficult	x50%
Weather	
Poor	x75%
Very Poor	x50%

If more than one Scale Multiplier applies, apply them from largest value to lowest value. Thus, over Difficult Terrain (x50%) in Poor Weather (x75%), a unit that can ordinarily move 100 km in a Full Move March can only move (75% x 100 = 75 km; 50% x 75 km =) 37.5 km. Terrain modifiers assume that type of terrain exists for at least 25% of the length of a Full Move March.



MILITARY ENHANCEMENT

Roll: Bureaucracy
Action: Full Phase
END: 3

Sometimes a Kingdom wants to improve its military might not by obtaining more soldiers but through general, overall improvements: recruiting a new Minister of Defense (or training the one it has to be even better); providing better training and equipment for the troops; building more powerful warships; buying a more nutritious brand of Dragon Chow for the mounts of the Draconic Cavalry; and so on. In game terms this means improving a Military-related Skill with the *Military Enhancement* Combat Maneuver.

To use Military Enhancement, a Kingdom first selects a Skill it wants to improve. Typically this Skill is Strategy, but it could be any Skill the GM regards as primarily Military. It takes a Full Phase Action, pays 3 END, and makes a Bureaucracy roll. The roll suffers a penalty equal to the Skill's current roll divided by 5 (the better the Kingdom already is at something, the harder it is to improve). If the roll succeeds, the chosen Skill gets a permanent +1 to its roll, with the special effect defined as discussed above. If the roll fails, nothing happens; the Kingdom simply wasted its time and money on a failed effort to improve itself. If the roll fails badly (by 4 or more), the chosen Skill loses 1 from its roll permanently — whatever the Kingdom did, it just made things worse.

At the GM's option, a Kingdom can use Military Enhancement to improve any Skill Level that primarily applies to Military Skills. This may take more time and cost more END; the penalty to the Bureaucracy roll equals *twice* the bonus currently provided by the Skill Levels.

Unless the GM rules otherwise, a Kingdom can only use Military Enhancement once per Skill per Turn (or possibly just once per Turn, regardless of the number of Military-related Skills it has).

RAZE

Roll: Strategy (see text)
Action: Full Phase (Attack Action)
END: 2

The *Raze* Combat Maneuver allows a Kingdom to destroy or ruin a military asset or resource belonging to another Kingdom. As the name implies, typically this means tearing down a fortress or similar structure, but it could also mean blowing up a shipyard, salting the ground where crops are grown to feed the military, or the like. The GM defines what constitutes a “military asset or resource” for the purposes of Raze.

The performance and outcome of a Raze attack can vary depending on the target and method chosen. Typically the attacker uses Strategy, but depending on the situation Espionage, Propaganda, or some other Skill may be more appropriate. Unless the GM rules otherwise,

a Kingdom can only use Raze against a target it already controls or occupies, usually after a successful Attack against that target.

To use Raze, the Kingdom makes a Strategy (or other appropriate Skill) roll at +2. If he succeeds, the target is destroyed. The Kingdom the target formerly belonged to loses whatever military benefit it gained from it. (Note that this has no economic impact, though the attacker could use Destroy Economic Resource to do that, either before or after using Raze.) The GM determines the exact effects based on the circumstances. He also determines how the target can be rebuilt, repaired, or otherwise restored to full function (if at all). This may require adapting the *Rebuild Economic Resource* Combat Maneuver to military purposes, using *Fortify* to rebuild a destroyed castle, or using some other Combat Maneuvers to permanently “restore” what was lost somehow.

RECRUITMENT

Roll: Propaganda (see text)
Action: Full Phase
END: 2

A Kingdom needs a way to get people to join the ranks of its military... especially after the military's suffered losses and requires replenishment. To do this, use the *Recruitment* Maneuver. This requires a special Propaganda roll that's affected by the Kingdom's EGO Roll. The GM makes the Kingdom's EGO Roll as a Complementary Skill Roll to the Propaganda roll. Success affects the Propaganda roll according to the usual rules. If the EGO Roll fails, then the Propaganda roll suffers a penalty equal to the amount the roll failed by.

If the Propaganda roll fails, the Kingdom's recruitment efforts haven't succeeded and it gets no new troops. (Though it can still “activate” unspent or unused STR Points, if it has any.) If the roll succeeds exactly (by 0), the Kingdom gets new STR Points equal to 3% of its *current* STR Points (minimum of 1 point, standard rounding rules apply). For every +1 point by which the roll succeeds, the Kingdom gets another +3% of its STR Points.

If the Kingdom has lost STR Points below its full normal military might, any STR Points gained from Recruitment are permanent until lost. If it already has its full normal STR Points, then the STR Points gained from Recruitment disappear at the end of the Turn (or after 12 Segments have passed, if the GM prefers). However, at the GM's option, by paying another 3 END or END equal to the number of STR Points gained (whichever is higher), the Kingdom can make those “extra” STR Points permanent as well. (Of course, any STR Points gained this way factor into Maintain Military payments going forward.) If appropriate, you can think of this form of Recruitment as *Training* or *Equipping* the existing soldiery to improve its power.

Repeatedly trying to Recruit additional troops becomes difficult. A Kingdom's first use of Recruitment is at -0 penalty. Future Recruitment efforts suffer a -3 penalty, but that penalty diminishes at the rate of -1 per Turn until it reaches -0.

Example: *Dean has suffered some military reversals recently. He normally has 40 STR Points, but due to losses in his war against Matt he's down to 32 STR Points. He decides he'd better do some Recruiting. His Kingdom has Propaganda 13- and an EGO Roll 11-. He rolls 9 for his EGO Roll, so he gets a +1 on his Propaganda roll. He decides to spend 5 END on his recruitment drive for another +3, giving him a final roll of 17-. He rolls a 13, making the roll by 4. That means his Recruitment drive gets him additional STR Points equal to 12% of 32, or 3.84 (rounds to 4). So, his STR goes up to 36. Since he's below his normal full strength of 40 STR Points, the +4 STR he gained from Recruitment stays with him permanently.*

Suppose Dean had suffered no losses and been at 40 STR Points and all the rolls were the same. In that case he'd have Recruited 12% of 40 STR Points, or 4.8 (rounds to 5) new STR Points. Since he's already at full normal strength, that +5 STR Points only last until the end of the Turn. However, with the GM's permission he could pay another 5 END and keep that +5 STR Points permanently.

FORCED CONSCRIPTION

In some cases a Kingdom may have to (or want to) make people to join its military regardless of their personal wishes. This is called *Forced Conscription*. It works like Recruitment, but with a few key differences. First, it uses Strategy instead of Propaganda. Second, the penalty for a failed EGO Roll is -1 per 2 full points of failure (rather than -1 per 1). Third, the Kingdom suffers a penalty to all other EGO Rolls equal to -1 for every 2 full points the Strategy roll succeeded by. This penalty lasts for a minimum of two Turns, and possibly longer.

RETREAT

Roll: Strategy vs. Strategy (see text)
Action: Full Phase
END: Special (see text)

A force can choose to retreat from an Attack, withdrawing rather than engaging in a full-out battle it doesn't think it can win. This is a defensive Action and can be Aborted to (in some situations the GM may even permit a force to Abort to Retreat even if it's already acted in that Phase).

If a force retreats, both sides make Strategy rolls as usual for an Attack, but (a) any casualty results are halved, and (b) the attacker automatically takes possession of (and the REC from) the territory the defender retreated from. As part of its Retreat, the retreating force moves as far as it has to get out of the contested area, subject to the GM's approval.

A Retreat costs the retreating force END equal to 1% of the STR Points involved (minimum of 1) and the pursuer END equal to 2% of the STR Points involved. (If the retreating force doesn't have the full END necessary, it suffers a -1 to its Strategy roll.)

SLAUGHTER

Roll: Strategy vs. Strategy (STR Points apply; DEF applies)
Action: Half Phase (Attack Action)
END: Special (see text)

Sometimes a Kingdom doesn't want to just defeat an enemy military — it wants to destroy the enemy populace, inhibiting the enemy's ability to wage war in the future.

To use Slaughter, a Kingdom declares what region of an enemy Kingdom it wants to attack (up to and including "the entire Kingdom"). The GM then determines what percentage of the Kingdom's population (*i.e.*, its CON) lives in that region, based on the assignment of CON points as described on page 212. The attacking Kingdom must have at least one military unit (*i.e.*, some STR Points) in that area, and the GM may require that it have a certain minimum amount of STR based on the size/population of the area involved. (In other words, use some common and dramatic sense — a single unit of a few dozen soldiers can't Slaughter a province or Kingdom containing tens or hundreds of thousands of people.)

After the attacker picks a target, the Kingdoms engage in a Skill Versus Skill Contest using the *Strategy* Skill. The attacker adds its STR Points as a bonus to his roll, and the target's DEF as a penalty if that applies; if the defender has any STR Points in the area to try to stop the Slaughter, it adds its STR Points as a bonus to its own roll. If the attacker fails or the target wins, nothing happens; the attempt to Slaughter fails. If the attacker wins by 0 (a tie), it reduces the CON in the targeted region by 10%, but loses 10% of his STR Points (minimum of 1) in the process. If the attacker succeeds by 1, the target region loses 20% of its CON; if it succeeds by 2, 30% of its CON, and so on.

At the beginning of the next Turn, the GM should adjust the target Kingdom's REC and END to take the lost CON into account. Depending on the extent and success of the Slaughter, a Kingdom could find its money and income significantly reduced, or barely affected.

CON lost to Slaughter is lost for a long time. Absent large-scale immigration or some other way of replenishing it swiftly, a Kingdom regains 1% of its current CON per year via childbirth.

POLITICAL COMBAT MANEUVERS

Political Combat Maneuvers involve Actions that take place in the realm of politics, society, government, and the like. That's not to say they're not sometimes violent (in fact, they often are, since games focus on dramatic events), but any violence involved tends to be relatively focused and precise compared to most Military Combat Maneuvers.

ASSASSINATION

Roll: Espionage vs. Espionage (DEF applies)
Action: Half Phase (Attack Action)
END: 1

This Political Combat Maneuver allows a Kingdom to “remove” (in a most permanent way) a person in another Kingdom whom it regards as a threat, an obstacle to its plans, or the like.

To use Assassination, a Kingdom must first declare who the assassin's target shall be. Typically it must choose a person who's defined as the “special effect” of a Skill Roll bonus or a Skill Level (see the *Skills* section). The GM may permit a Kingdom to choose some other NPC as a target, but in that case must decide what game effect

Assassination has. Player Characters may not be targeted with Assassination; any such attempts must be resolved as personal-level scenarios with personal-level rules.

After the attacker picks a target, the Kingdoms engage in a Skill Versus Skill Contest using the *Espionage* Skill; the attacker must apply the target's DEF as a penalty to its roll. Use the accompanying table to determine the results.

BREAD AND CIRCUSES

Roll: Propaganda
Action: Full Phase
END: 1

This Political Combat Maneuver allows a Kingdom to mollify its populace, or increase their patriotism, through spectacle — a national holiday, a gladiatorial event, a free feast, or whatever else happens to be appropriate to the campaign and the circumstances.

To use Bread And Circuses, the Kingdom makes a Propaganda roll. If the roll succeeds, the Kingdom's EGO rises by ½d6 for 1d6+1 Segments. If it succeeds by half or more, the Kingdom may choose either to increase the EGO boost to 1d6-1 (minimum of 2) or the duration to 1½d6+1 Segments. If the roll fails, the Kingdom loses the END spent and gets no temporary EGO boost; if it fails badly (by 4 or more), the Kingdom *loses* ½d6 EGO for 1d6+1 Segments.

Unless the GM rules otherwise, a Kingdom can only use Bread And Circuses once per Turn.

ASSASSINATION TABLE

Attacker Fails By...	Result
4 or more	Assassination victim survives, but there's a major complication (<i>e.g.</i> , an important incorrect victim is killed, the assassin is captured alive and can be interrogated)
2-3	Assassination victim survives, but there's a minor complication (<i>e.g.</i> , the assassin is killed, an incorrect [and worthless] victim is killed, innocent bystanders are hurt or killed)
1	Assassination victim survives without injury or harm
0 (tie)	Assassination victim survives (but may be injured)
Attacker Wins By...	Result
1	Assassination victim dies, but there's a minor complication (<i>e.g.</i> , assassin is injured and hasn't been able to escape yet, innocent bystanders are hurt or killed)
2-3	Assassination victim dies with no complications, but was obviously murdered
4 or more	Assassination victim dies, target Kingdom doesn't know he was murdered unless attacker wants it to
Target Wins By...	Result
1	Assassination victim survives without injury or harm
2-3	Assassination victim survives, but there's a minor complication (see above)
4 or more	Assassination victim survives, but there's a major complication (see above)

CONCEAL INTELLIGENCE

Roll: Espionage (see text)
Action: Half Phase
END: 1

This Political Combat Maneuver allows a Kingdom to hide valuable information, such as the size of a military force or the location of an important economic asset, from other Kingdoms. This could be any sort of information, not just Political subjects: how much REC it gets from a particular region; the military strength (*i.e.*, STR Points) and/or DEF of one of its fortresses; what special technologies it possesses; and the like.

To use Conceal Intelligence, the Kingdom first declares what it wishes to hide, and from whom (it can choose a single other Kingdom, all other Kingdoms, or as many Kingdoms as it prefers — but secrets not kept secret from everyone can eventually be learned by anyone). It then makes an Espionage roll, noting the result. If the roll fails, the Kingdom receives no extra protection for the secret; if it fails badly, the Kingdom suffers a -1 to Espionage rolls to resist Gather Intelligence rolls pertaining to the secret for 1d6 Segments. If the roll succeeds exactly, the fact is concealed for that Segment, plus one more Segment. For every additional point the roll succeeds by, add +1 Segment to the time the concealment applies. A Kingdom can make multiple rolls to hide the same fact, with each roll further increasing the period of concealment (or continuing it, if it's about to end).

If another Kingdom tries a Gather Intelligence Maneuver to learn the secret during the period of concealment, the standard rules for that Maneuver apply. However, the target Kingdom's Espionage roll with Conceal Intelligence acts as a Complementary Roll to its roll to resist the Gather Intelligence. (If it's made multiple rolls to hide the secret, use the best single result for this purpose.)

ENCOURAGE IMMIGRATION

Roll: Propaganda vs. EGO Roll (DEF applies)
Action: Full Phase
END: 2

This Political Combat Maneuver allows a Kingdom to attract immigrants to it, thereby increasing its CON (population) permanently.

To use Encourage Immigration, a Kingdom first declares which other Kingdom is its "target." Then the Kingdoms engage in a Skill Versus Skill Contest using the attacker's *Propaganda* versus the target's EGO Roll; the attacker must apply the target's DEF as a penalty to its roll, and the target may use either its *Propaganda* or its *Bureaucracy* Skill as a Complementary Roll ("Your application for a visa is denied. Next!").

If the attacker wins, it permanently gains (and the target loses) points of CON equal to half its margin of victory (round down, but minimum of 1). For example, if the attacker wins by 1-3, it gains +1 CON; if it wins by 4-5, +2 CON, and so forth. The GM may restrict the amount of CON that can be gained this way based on the target's population, how much room the attacker has to absorb immigrants, and the like.

Unless the GM rules otherwise, a Kingdom can only use Encourage Immigration once per Turn.

ENHANCE SATISFACTION

Roll: Propaganda
Action: Full Phase
END: 3

This Political Combat Maneuver allows a Kingdom to improve the general attitude and loyalty of its populace. Through a program of providing (or seeming to provide) significant benefits to the people — tax decreases, infrastructure improvements, the blessing of the gods, new trade routes, or whatever's appropriate — the Kingdom permanently enhances the satisfaction of the people.

To use Enhance Satisfaction, the Kingdom takes a Full Phase Action, pays 3 END, and makes a Propaganda roll. The roll suffers a penalty equal to the Kingdom's current EGO divided by 5 (the happier the people already are, the harder it is to make them happier). If the roll succeeds, the Kingdom gets a permanent +1 boost to its EGO. If the roll fails, nothing happens; the Kingdom simply wasted its time and money on a failed effort to improve itself. If the roll fails badly (by 4 or more), the Kingdom loses 1 EGO permanently — whatever it did, it just made things worse.

Unless the GM rules otherwise, a Kingdom can only use Enhance Satisfaction once per Turn.

GATHER INTELLIGENCE

Roll: Espionage vs. Espionage (DEF applies)
Action: Half Phase
END: 1

This Political Combat Maneuver allows a Kingdom to learn valuable information about another Kingdom. This could be any sort of information, not just Political subjects: how much REC another Kingdom gets from a particular region; the military strength (*i.e.*, STR Points) and/or DEF of a fortress; the Kingdom's technology level; and the like.

To use Gather Intelligence, a Kingdom first declares what it wishes to learn, and the GM decides if it's even possible to obtain that information. Depending on how easy or difficult a piece of information is to learn, the GM can modify the attacker's Espionage roll (information publicly available in the target Kingdom would be +4, while Top Secret government or military data would be -4 or worse). Then the Kingdoms engage in a Skill Versus Skill Contest using the *Espionage* Skill; the attacker must apply the target's DEF as a penalty to its roll. Use the accompanying table to determine the results.

GATHER INTELLIGENCE TABLE

Attacker Fails By...	Result
4 or more	Attacker fails to learn information, and there's a major complication resulting in a -2 penalty to all of its Espionage rolls for the next 12 Segments.
2-3	Attacker fails to learn information, and there's a minor complication resulting in a -1 penalty to all of its Espionage rolls for the next 12 Segments.
1	Attacker fails to learn information
0 (tie)	Attacker learns information, but target knows he learned it, and there's a trivial complication resulting in a -1 penalty to all of its Espionage rolls for the next 3 Segments
Attacker Wins By...	Result
1	Attacker learns information, but target knows he learned it
2-3	Attacker learns information; target knows someone learned it, but not who
4 or more	Attacker learns information; target Kingdom doesn't know anyone has learned that information
Target Wins By...	Result
1	Attacker fails to learn information, and there's a trivial complication resulting in a -1 penalty to all of its Espionage rolls for the next 3 Segments
2-3	Attacker fails to learn information, and there's a minor complication (see above)
4 or more	Attacker fails to learn information, and there's a major complication (see above)

At the GM's option, any failure to learn information, particularly by 3 points or more, may instead mean learning *false* information.



The *Gather Intelligence* Maneuver can be used on one's self as a form of investigation. For example, if a Kingdom suffers an attack from an unknown enemy, or experiences a disaster that it suspects might have been caused deliberately, it could use *Gather Intelligence* to uncover the truth. In this case the GM simply imposes a modifier based on the difficulty of the investigation and lets the Kingdom attempt an *Espionage* roll.

IMPAIR POLITICS

Roll: Diplomacy vs. Diplomacy
Action: Half Phase (Attack Action)
END: 2

Sometimes an indirect attack is more beneficial than a direct assault. A Kingdom can perform an *Impair Politics* Maneuver to hinder an enemy's political processes, negotiations with other Kingdoms, and the like. Examples of this include spreading rumors that the target plans to betray an ally, secretly funding harmful candidates to run for political office, stirring up discontent among the target's people, sabotaging election results, causing an outbreak of disease during sensitive treaty negotiations, and the like.

To use *Impair Politics*, the attacker engages in a *Diplomacy Versus Diplomacy* Skill Contest against the target. At the GM's option, in appropriate circumstances both attacker and defender may make *Espionage* rolls as Complementary Skill Rolls, or *Espionage* may be substituted for *Diplomacy* in the Skill Contest.

If the defender wins the Contest, nothing happens to it. If the attacker wins, use the accompanying table to determine the results.

IMPAIR POLITICS TABLE

Margin Of Success	Result
1	Defender suffers a -1 on Diplomacy (and/or Propaganda) rolls (and at the GM's option, related rolls) for 1d6 Segments
2-3	Defender suffers a -1 on Diplomacy (and/or Propaganda) rolls (and at the GM's option, related rolls) for 2d6 Segments
4-7	Defender suffers a -2 on Diplomacy (and/or Propaganda) rolls (and at the GM's option, related rolls) for 3d6 Segments
8-15	Defender suffers a -3 on Diplomacy (and/or Propaganda) rolls (and at the GM's option, related rolls) for 4d6 Segments
16 or more	Defender suffers a -4 on Diplomacy (and/or Propaganda) rolls (and at the GM's option, related rolls) for 5d6 Segments

INCITE REVOLT

Roll: Propaganda vs. EGO Roll (DEF applies)
Action: Full Phase (Attack Action)
END: 3

This Political Combat Maneuver allows a Kingdom to exploit negative conditions in another Kingdom to cause the target's people to rebel. This requires a Full Phase Action (and at the GM's option, possibly longer, particularly in settings where long distances and low technology may make Inciting a Revolt difficult). The GM may also rule that it's not possible to use *Incite Revolt* on some Kingdoms at some times, because there's no reasonable basis for a rebellion.

To use *Incite Revolt*, the Kingdoms engage in a Skill Versus Skill Contest pitting the attacker's Propaganda against the target's EGO Roll (with the GM's permission, the target can use its own Propaganda roll as Complementary to its EGO Roll). The target applies its DEF as a bonus to its EGO Roll. If the target wins or the attacker fails, nothing happens (at the GM's option, in the case of bad failure the target might even get a temporary +1 to other EGO Rolls, since the attempt has brought the people closer together or made them trust their government more).

If the attacker wins, a revolt has broken out in the target Kingdom. The GM decides the exact strength and consequences of the rebellion. Generally speaking, the following conditions apply:

- a Kingdom in Revolt cannot Recruit additional STR from its people
- the Kingdom in Revolt loses some of its REC for that Turn (the GM decides how much based on the extent, length, and severity of the Revolt)
- the rebels may seize some of the Kingdom's END (or other resources) for use by themselves

To end a Revolt, a Kingdom must use a *Quell Revolt* Maneuver (see below). If necessary and appropriate, the GM can write up the rebel forces as a separate Kingdom and determine the outcome using the Kingdom Combat rules. A Revolt typically lasts until it achieves its goals (either by force or concessions from the ruler), a *Quell Revolt* succeeds, or the GM rules that some other condition affects the situation (e.g., the peasant rebels decide to lay down their arms because planting season's beginning).

MANIPULATE MEDIA

Roll: Propaganda (see text)
Action: Full Phase
END: 2

In campaigns that feature mass media (e.g., most Modern and Future campaigns), a Kingdom can attempt to control the media indirectly to improve how people perceive that Kingdom (or some other issue that Kingdom considers important). To do this, the Kingdom makes a Full Phase Action, spends 2 END, and makes a Propaganda roll. If the roll fails, the Kingdom is unsuccessful



at “getting its message out” — maybe the media wasn’t prone to being manipulated, or opposing parties countered the Kingdom’s message.

If the roll succeeds exactly, the Kingdom gets a +1 bonus to *either* its Propaganda roll or its EGO Roll that lasts for 3 Segments. For each additional point by which the roll succeeds, the Kingdom may also choose one of the following:

- an additional +1 to either Propaganda or EGO Roll for the defined time period
- extend the time period for all roll bonuses by an additional $\frac{1}{2}$ d6 Segments

The Kingdom can “mix-and-match” bonuses.

For example, if a Kingdom’s roll to Manipulate Media succeeds by 5, it could choose +3 to Propaganda rolls, +2 to EGO Rolls, and to extend the duration for both boni by $\frac{1}{2}$ d6 Segments.

NEGOTIATE

Roll: Diplomacy vs. Diplomacy

Action: Half Phase (see text)

END: 1

Kingdoms use the *Negotiate* Combat Maneuver to come to an agreement with one another about various international matters. These include, but aren’t limited to, treaties of military alliance, trade agreements, loans, the right of free passage through a Kingdom’s territory, and non-aggression pacts.

To use Negotiate, one Kingdom must propose an agreement to another Kingdom. This usually involves sending a diplomatic delegation, messenger, trade representative, nuncio, or other official(s) to present the proposal and conduct negotiations. Although Negotiate only counts as a Half Phase Action, for reasons of both “realism” and dramatic sense the GM may require a Kingdom to send a delegation many Segments

or Turns in advance to account for travel time and other difficulties. (If so, declaring that one wishes to send a delegation counts as a Zero Phase Action; actually performing the Negotiate when the delegation arrives requires a Half Phase Action at that time.)

Negotiate involves a Diplomacy Versus Diplomacy Contest. The GM should modify the target Kingdom’s roll depending on that Kingdom’s self-interest, the reasonableness of the terms, and other factors. In short — convincing a Kingdom to enter into an agreement that’s not in its perceived interest should always be difficult. If the Kingdom that initiated the Negotiate wins, it gets the agreement it wants (the more it makes it by, the closer the agreement is to its ideal and doesn’t require compromises). If the “target” Kingdom wins the Negotiate, either the process results in no agreement or (in the case of a win by 4 or more) an agreement that favors the “target” rather than the “attacker.”

Note that regardless of the rolls made, agreements obtained through Negotiation are *not* binding. While they’ll usually be followed, most Kingdoms have no qualms about breaking one if that seems to be in their best interest.

If the campaign mixes Kingdom-level and Character-level play, Negotiate generally shouldn’t be used against a Kingdom controlled by a player — players get to make up their own minds about what their Kingdoms do, in most circumstances. In such campaigns Negotiate is generally only for use on NPC Kingdoms.

If possible, the players involved and the GM should roleplay Negotiate, perhaps with each player temporarily taking on the role of someone important to the meeting. It can be a lot of fun and sow the seeds for later events at both levels of play.

POLITICAL ENHANCEMENT

Roll: Bureaucracy
Action: Full Phase
END: 3

Sometimes Kingdoms want to improve their political capabilities through general, overall improvements: recruiting a new Secretary of State (or training the one it has to be even better); establishing a new school for teaching diplomats; lavishly spreading bribes throughout the international diplomatic community; and so on. In game terms this means improving a Political-related Skill with the *Political Enhancement* Combat Maneuver.

To use Political Enhancement, a Kingdom first selects a Skill it wants to improve. Possible Skills include Bureaucracy, Diplomacy, and Espionage, but it could be any Skill the GM regards as primarily Political. It takes a Full Phase Action, pays 3 END, and makes a Bureaucracy roll. The roll suffers a penalty equal to the Skill's current roll divided by 5 (the better the Kingdom already is at something, the harder it is to improve). If the roll succeeds, the chosen Skill gets a permanent +1 to its roll, with the special effect defined as discussed above. If the roll fails, nothing happens; the Kingdom simply wasted its time and money on a failed effort to improve itself. If the roll fails badly (by 4 or more), the chosen Skill loses 1 from its roll permanently — whatever the Kingdom did, it just made things worse.

At the GM's option, a Kingdom can use Political Enhancement to improve any Skill Level that primarily applies to Political Skills. This may take more time and cost more END; the penalty to the Bureaucracy roll equals *twice* the bonus currently provided by the Skill Levels.

Unless the GM rules otherwise, a Kingdom can only use Political Enhancement once per Skill per Turn (or possibly just once per Turn, regardless of the number of Political-related Skills it has).

QUELL REVOLT

Roll: Propaganda or Strategy
 (see text) vs. EGO Roll
Action: Full Phase
END: 2

The *Quell Revolt* Maneuver allows a Kingdom to put down a Revolt (whether one started by an *Incite Revolt* Maneuver, or one that begins for other reasons). The Kingdom can go about this one of two ways.

First, it can try to use Propaganda to sway the rebels. This involves a Skill Contest pitting the Kingdom's Propaganda against its EGO Roll (which in this case represents the willpower and strength of the Revolt). The EGO Roll is modified by the amount by which the attacker who Incited the Revolt succeeded with his roll to do so (or if there was no such roll, by an amount determined by the GM). Other modifications are often appropriate. Remember that a populace most likely to rebel probably started out with a low EGO Roll to begin with (indicating lack of happiness and loyalty), so the GM may want to increase the

EGO Roll for this purpose to represent the rebels' general level of dissatisfaction. On the other hand, a lack of money, lack of international support, the approach of winter or the farming season, or many other factors might discourage the revolution, resulting in negative modifiers.

Second, the Kingdom can try to crush the Revolt militarily. In this case it uses Strategy; DEF applies to its roll as a positive modifier, as does any STR Points it chooses to devote to the situation. The rebels resist with an EGO Roll (or, if the GM prefers or has written the revolution up as a Kingdom, with a Strategy roll granted to the rebels to represent their fighting strength).

In either case, if the Kingdom wins, the Revolt ends; if it fails, the Revolt continues. After a Revolt ends, the GM may decide to reduce the Kingdom's CON, REC, or END to represent population attrition from the civil war, damage to the Kingdom's infrastructure, and the like.

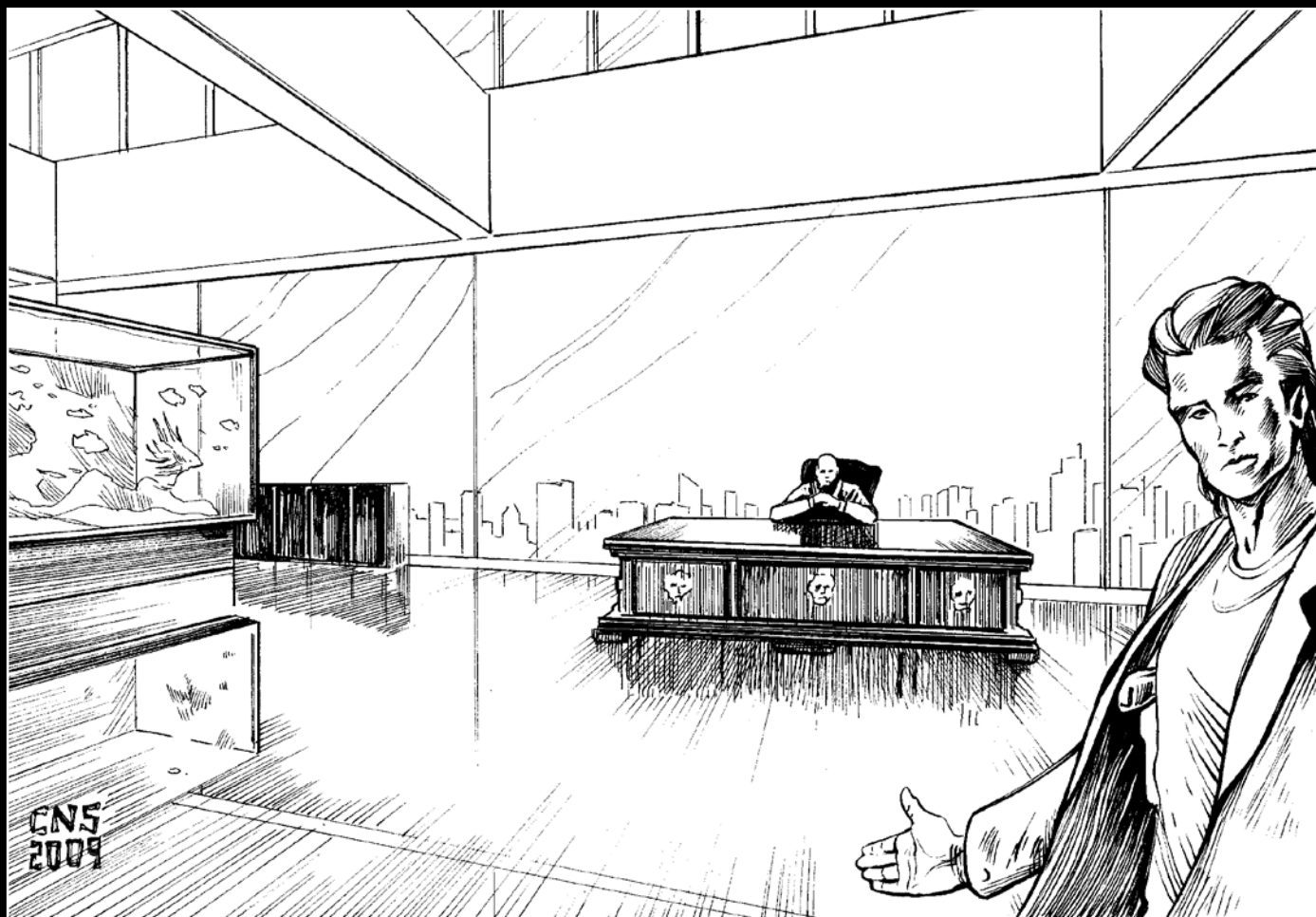
TREACHERY

Roll: Espionage vs. Espionage
 (see text) (DEF applies)
Action: Half Phase
END: 2

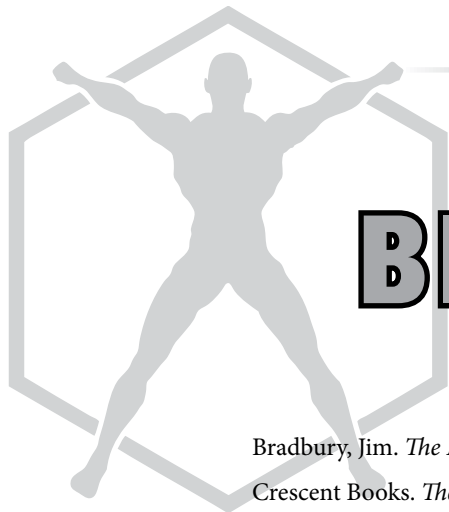
The *Treachery* Combat Maneuver represents the dark and seamy side of politics. It allows one Kingdom to either (a) recruit someone in an enemy Kingdom as a traitor to work for it, or (b) to "activate" that person and have them perform some service for it. In special effect terms, Treachery could involve blackmailing someone, buying them off with money (or items of importance), seducing them, tricking them into thinking they're doing something honorable, or the like.

To use Treachery to "turn" a traitor, a Kingdom must first explain to the GM who it intends to turn and the method it will use. Then it engages in an Espionage Versus Espionage Contest with the target. DEF modifies the target's roll; the GM may apply other modifiers based on the loyalty of the potential traitor, the appropriateness of the attacker's methods, and other factors. If the attacker wins, the potential traitor becomes an actual traitor and awaits orders to act. If the target wins, the potential traitor rejects the offer and remains loyal. (Depending on his loyalty and the nature of the situation, he may or may not inform his own Kingdom of what happened.) If the target wins by 4 or more, it definitely learns of the attempt to turn the potential traitor... and possibly even obtains a small bonus if it attempts to turn the tables on its attacker!

To use Treachery to activate a traitor, typically no roll is required (though the GM may require one if there's some reason the attacker might have difficulty communicating with the traitor). The traitor simply receives his orders and acts on them in the appropriate manner. The GM determines the effect and the outcome, but typically activating a traitor provides a +1 to +3 bonus to some other Skill Roll. The downside is, if that other roll fails by any amount, the traitor will probably be exposed (in which case the attacker loses the use of him permanently).



BIBLIOGRAPHY AND INDEX



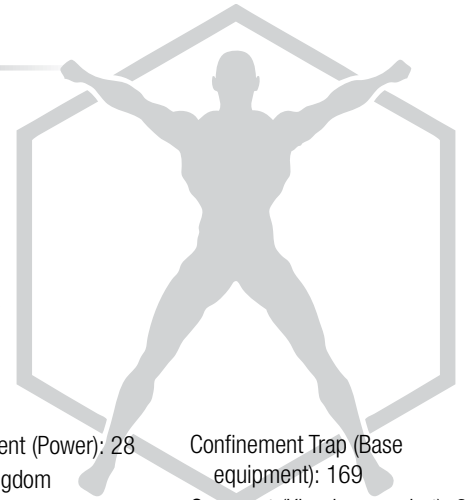
BIBLIOGRAPHY

- Bradbury, Jim. *The Medieval Siege*
Crescent Books. *The World Atlas Of Architecture*
Diagram Group. *The New Weapons Of The World Encyclopedia*
Gravett, Christopher. *The History Of Castles*
Harris, Cyril, ed. *The Illustrated Dictionary Of Historic Architecture*
Kaufmann, J.E. and H.W. Kaufmann. *The Medieval Fortress*
LePage, Jean-Denis G. G. *Castles And Fortified Cities Of Medieval Europe*
Manucy, Albert. *Artillery Through The Ages*
Norris, John. *Artillery: A History*
Nossov, Konstantin. *Ancient And Medieval Siege Weapons*
Osprey Books. The "Fortress" series and "Fortifications" series
Scarre, Chris, ed. *The Seventy Wonders Of The Ancient World*
Toy, Sidney. *Castles: Their Construction And History*

OTHER ROLEPLAYING GAMES

- Aria Worlds*, Last Unicorn Games
Birthright, TSR
The Book Of Strongholds And Dynasties, Mongoose Publishing
The Castle Guide, TSR
"Designer Demesnes," Mark A. Hart, *Dragon* #259 (May 1999)
DUNE: Chronicles Of The Imperium, Last Unicorn Games
Dynasties And Demagogues, Atlas Games
Gary Gygax's Nation Builder, Troll Lord Games
Points In Space, Cumberland Games
Reign and its supplements, Greg Stolze
Stronghold Builder's Guidebook, Wizards Of The Coast
Stuff, BTRC
World Builder's Guidebook, TSR

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